



# ORANGE COUNTY FIRE AUTHORITY

## AGENDA

### BOARD OF DIRECTORS REGULAR MEETING AND CONCURRENT JOINT SPECIAL MEETINGS OF THE BOARD OF DIRECTORS, EXECUTIVE COMMITTEE, BUDGET & FINANCE COMMITTEE AND THE HUMAN RESOURCES COMMITTEE

Thursday, June 23, 2022  
6:00 P.M.

Regional Fire Operations and Training Center  
Board Room  
1 Fire Authority Road  
Irvine, CA 92602

Link to:  
[Board of Directors Member Roster](#)

#### **NOTICE REGARDING PUBLIC PARTICIPATION DURING COVID-19 EMERGENCY**

This meeting is open to the public. In addition, there are several alternative ways to view and to make comments during the meeting, including:

##### **Access Meeting Live (No Public Comments):**

You may access the meeting live electronically at: <https://player.cloud.wowza.com/hosted/xvtncikw/player.html>.  
(Note: you should use one of the other alternatives below if you want to make comments during the meeting.)

**Public Comments Live via Zoom:** You may also view and make real-time verbal comments during the meeting via the Zoom link below during the meeting. You will be audible during your comments, but the board members will not be able to see you. To submit a live comment using Zoom, please be prepared to use the “Raise Your Hand” feature when public comment opportunities are invited by the Chair. (You can raise your hand on your smart phone by pressing \*9.) Also, members of the public must unmute themselves when prompted upon being recognized by the Chair in order to be heard. (To unmute your smartphone in Zoom, press \*6.)

Public Comments via Zoom: <https://zoom.us/j/83264128588#success>  
Meeting ID: 832 6412 8588  
Passcode: 298121  
Raise Your Hand (press \*9) and Unmute (press \*6)

**E-Comments:** Alternatively, you may email your written comments to [coa@ocfa.org](mailto:coa@ocfa.org). E-comments will be provided to the board members upon receipt and will be part of the meeting record as long as they are received during or before the board takes action on an item. Emails related to an item that are received after the item has been acted upon by the board will not be considered.

Further instructions on how to provide comments is available at: <https://ocfa.org/PublicComments>.



In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, you should contact the Clerk of the Authority at (714) 573-6040 and identify the need and the requested modification or accommodation. Please notify us as soon as is feasible, however 48 hours prior to the meeting is appreciated to enable the Authority to make reasonable arrangements to assure accessibility to the meeting.

This Agenda contains a brief general description of each item to be considered. Except as otherwise provided by law, no action or discussion shall be taken on any item not appearing on the following Agenda. Unless legally privileged, all supporting documents, including staff reports, and any writings or documents provided to a majority of the board members after the posting of this agenda are available for review at the Orange County Fire Authority Regional Fire Operations & Training Center, 1 Fire Authority Road, Irvine, CA 92602 or you may contact the Clerk of the Authority at (714) 573-6040 Monday through Thursday, and every other Friday from 8 a.m. to 5 p.m. and available online at <http://www.ocfa.org>

**CALL TO ORDER** by Chair Steggell

**INVOCATION** by OCFA Chaplain Harry Robinson

**PLEDGE OF ALLEGIANCE** by Director Park

**ROLL CALL** by Clerk of the Authority

## **REPORTS**

### **A. Report from the Budget and Finance Committee Chair**

### **B. Report from the Fire Chief**

- Girls Empowerment Camp
- Fire Cadet Academy
- Fire Captain Academy
- 4<sup>th</sup> of July Press Conference

## **PUBLIC COMMENTS**

**Please refer to instructions on how to submit a public comment during COVID-19 Emergency on Page 1 of this Agenda.**

## **1. PRESENTATIONS**

No items.

## **2. CONSENT CALENDAR**

*All matters on the consent calendar are considered routine and are to be approved with one motion unless a director or a member of the public requests separate action on a specific item.*

### **A. Minutes for the Board of Directors**

Submitted by: Maria D. Huizar, Clerk of the Authority

The record will reflect that any Director not in attendance at the meeting of the Minutes will be registered as an abstention, unless otherwise indicated.

Recommended Action:

Approve the Minutes for the May 26, 2022, Regular and Concurrent Joint Special Meeting as submitted.

**B. CAL FIRE Grant to OCFA for Vegetation Management**

Submitted by: Tim Perkins, Division Chief/Special Operations and Justin Neville, Battalion Chief/Wildland Operations

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 5-0 (Directors O'Neill, Hernandez, Bourne and Tettemer absent).

Recommended Action:

Approve a budget adjustment to the FY 2022/23 General Fund (121) budget to increase revenues and expenditures by \$1,225,000 for the OCFA Vegetation Management grant.

**C. FY 2021/22 Year End Budget Adjustment**

Submitted by: Robert Cortez, Assistant Chief/Business Services Department, Tricia Jakubiak, Treasurer and Stuart Lam, Budget Manager

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettemer absent).

Recommended Action:

Approve and authorize FY 2021/22 budget adjustments as detailed in this report.

**D. Updated Cost Reimbursement Rates**

Submitted by: Robert Cortez, Assistant Chief/Business Services Department and Julie Nemes, Finance Manager/Auditor

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 5-0 (Directors O'Neill, Hernandez, Bourne and Tettemer absent).

Recommended Action:

Approve and adopt the proposed Cost Reimbursement Rate schedules to be effective July 1, 2022.

**E. Award of RFP# SK2489b Design-Build Services for OCFA Mission Viejo Fire Station #24 and Approval of Corresponding Budget Adjustments**

Submitted by: Jim Ruane, Assistant Chief/Logistics Department and Patrick Bauer, Property Manager/Logistics Department

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettermer absent).

Recommended Actions:

1. Direct staff to increase the FY 2021/22 Fire Stations and Facilities CIP in the amount of \$3,000,000 for one-time additional funding for Fire Station #24 to add station capacity for both an Engine and Truck company.
2. Approve and authorize the Purchasing Manager to execute the proposed Design-Build Services Agreement for OCFA Mission Viejo Station #24 with EC Constructors, Inc. in an amount not to exceed \$14,996,489.

**F. Award of Public Works Contract for Uninterruptible Power Supply System Upgrade – RFOTC**

Submitted by: Jim Ruane, Assistant Chief/Logistics Department and Joel Brodowski, Information Technology Division Manager/Logistics Department

Recommended Actions:

1. Approve the plans and specifications for the installation and replacement of the existing Uninterruptible Power Supply System at the RFOTC.
2. Accept Ferreira Coastal Construction Company bid dated April 19, 2022.
3. Approve and award the public works contract to Ferreira Coastal Construction Company in the amount of \$602,311.

**G. Award of Public Works Contract for Installation of Clean Agent Fire Suppression System - RFOTC**

Submitted by: Jim Ruane, Assistant Chief/Logistics Department and Joel Brodowski, Information Technology Division Manager/Logistics Department

Recommended Actions:

1. Approve the plans and specifications for the installation of a Clean Agent Fire Suppression System at the RFOTC.
2. Accept Facilities Protection Systems bid dated April 5, 2022.
3. Approve and award the public works contract to Facilities Protection Systems in the amount of \$319,992.

**3. DISCUSSION ITEMS**

**A. OCFA Diversity, Equity and Inclusion Initiatives from 2019 Collaboration with ACLU to 2022 Climate Survey**

Submitted by: Lori Zeller, Deputy Chief/Administration & Support Bureau and Stephanie Holloman, Assistant Chief/Human Resources Director

Recommended Action:

Receive and file the report.

**B. Approval of Memorandum of Understanding with the Orange County Fire Authority Management Association**

Submitted by: Lori Zeller, Deputy Chief/Administration & Support Bureau and Stephanie Holloman, Assistant Chief/Human Resources Director

Recommended Action:

Approve the proposed Memorandum of Understanding between the Orange County Fire Authority and the Orange County Fire Authority Management Association, for a term of June 23, 2022, to June 22, 2023.

**C. Fire Integrated Real-time Intelligence System (FIRIS) 3.0 Program Extension**

Submitted by: Brian Fennessy, Fire Chief and Robert Cortez, Assistant Chief/Business Services Department

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettemer absent).

Recommended Actions:

1. Approve and authorize a budget adjustment to increase revenue and appropriations in the FY 2022-23 General Fund (121) budget by an additional \$9,789,565 for the extension of the FIRIS 3.0 Program up to an additional six months from July 1 through December 31, 2022.
2. Approve and authorize the Purchasing Manager to either amend or enter into new FIRIS-related vendor contracts by the individual amounts needed in support of the FIRIS 3.0 Program extension, so long as the aggregate value of the increase does not exceed the revised program budget (see table).
3. Approve and authorize the Purchasing Manager to issue an amendment to the Professional Services Agreement with AEVEX to modify the scope of services to allow for the installation and utilization of additional sensor technology, as requested by Cal OES.

**D. 2022 Quick Reaction Force (QRF) Program**

Submitted by: Brian Fennessy, Fire Chief

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettemer absent).

Recommended Actions:

1. Approve the Funding Agreement with Southern California Edison in a form substantially consistent with the attachment to accept funding in the amount of \$9,018,100 to fund the fixed-cost portion of the 165-day 2022 Quick Reaction Force Program.
2. Approve and authorize the Purchasing Manager to execute the Public Aircraft Lease and Service Agreement with Coulson Aviation (USA), Inc. in a form substantially

- consistent with the attachment utilizing the sole source procurement provision in the Purchasing Ordinance for the provision of aircraft and other operational related services in an amount not to exceed \$7,974,110 for the 2022 QRF Program term with the option to renew the agreement for two additional program terms, at the sole discretion of OCFA and contingent upon the identification of additional SCE funding.
3. Approve and authorize the Purchasing Manager to enter into a Professional Services Agreement with Perimeter Solutions in a form substantially consistent with the attachment utilizing the sole source procurement provision in the Purchasing Ordinance for the provision of a mobile fire-retardant plant and related services in an amount not to exceed \$1,655,000 for the 2022 QRF Program term.
  4. Approve and authorize the Purchasing Manager to enter into new Professional Services Agreements with the Air Tactical Group Supervisors (ATGS') in a form substantially consistent with the attachment at an amount not to exceed \$250,000 each for the 2022 QRF Program term, with an aggregate program spending cap not to exceed \$660,000.
  5. Approve and authorize the Purchasing Manager to enter into a new Professional Services Agreement for Program Manager Services with Scott Jones, in a form substantially consistent with the attachment and an aggregate program spending cap not to exceed \$250,000 for the 2022 QRF Program term.
  6. Approve and authorize a FY 2022/23 General Fund (121) budget adjustment to recognize funding from SCE for a revenue increase of \$9,018,100 and to increase appropriations by the same amount.
  7. Approve the updated Cost Reimbursement Rate schedule to include the CH-47 Very Large Helitanker, S-61 Helitanker, and S-76 Helitanker daily stand-by and hourly flight rates, and mobile fire retardant plant daily stand-by and hourly rates, and hourly rates for Program Manager and Air Tactical Group Supervisors to be effective June 24, 2022.
  8. Adopt an exemption from the California Environmental Quality Act (CEQA) pursuant to Title 14, California Code of Regulations, Section 15301 (Existing Facilities) and direct staff to file a Notice of Exemption.
  9. Approve and authorize the Fire Chief to enter into an agreement with the Los Alamitos Joint Forces Training base in a form substantially consistent with the attachment for a program spending cap not to exceed \$150,000 for the 2022 QRF Program term.

## **RECESS THE REGULAR MEETING OF THE BOARD OF DIRECTORS**

## **CALL TO ORDER THE CONCURRENT JOINT SPECIAL MEETINGS OF THE: BOARD OF DIRECTORS, EXECUTIVE COMMITTEE, BUDGET & FINANCE COMMITTEE, AND HUMAN RESOURCES COMMITTEE**

### **A. Findings Required by AB 361 for the Continued Use of Teleconferencing for Meetings** Submitted by: David Kendig, General Counsel

#### Recommended Actions by each legislative body:

##### **Option #1:**

Make the following findings by majority votes of the Board of Directors, Executive Committee, Budget and Finance Committee and Human Resource Committee:

- a. A state of emergency has been proclaimed by California's Governor due to the COVID-19 pandemic and continues in effect; and

- b. The Board of Directors and each Committee has reconsidered the circumstances of the emergency; and
- c. State and local officials continue to recommend measures to promote social distancing to slow the spread of COVID-19.

**Option #2:**

Make the following findings by majority votes of the Board of Directors, Executive Committee, Budget and Finance Committee and Human Resource Committee:

- a. Although a state of emergency has been proclaimed by California's Governor due to the COVID-19 pandemic and continues in effect, the OCFA Board of Directors and each Committee has reconsidered the circumstances of the emergency and no longer finds a need for the legislative body to continue the use of teleconferencing for its meetings.

**ADJOURN THE CONCURRENT JOINT MEETINGS AND RECONVENE TO THE REGULAR MEETING OF THE BOARD OF DIRECTORS****BOARD MEMBER COMMENTS****RECESS TO CLOSED SESSION**

*The Brown Act permits legislative bodies to discuss certain matters without members of the public present. The Board of Directors find, based on advice from the General Counsel, that discussion in open session of the following matter will prejudice the position of the Authority on item listed below:*

**CS1. CONFERENCE WITH LABOR NEGOTIATORS** pursuant to Government Code Section 54957.6

Negotiators:

Peter Brown, Liebert Cassidy Whitmore  
and Stephanie Holloman, Assistant Chief/Human  
Resources Director

Employee Organizations:

- Orange County Professional Firefighters Association, IAFF - Local 3631,
- Orange County Employees Association (OCEA), and
- Orange County Fire Authority Management Association (OCFAMA)

**CS2. CONFERENCE WITH LEGAL COUNSEL - PUBLIC EMPLOYEE PERFORMANCE EVALUATION** pursuant to Government Code Section 54954.5

Position:

Fire Chief

**CS3. CONFERENCE WITH LEGAL COUNSEL - PUBLIC EMPLOYEE PERFORMANCE EVALUATION** pursuant to Government Code Section 54954.5

Position:

General Counsel

**CS4. CONFERENCE WITH LEGAL COUNSEL - SIGNIFICANT EXPOSURE TO LITIGATION** pursuant to paragraph (2) and (3) of subdivision (d) of Section 54956.9 of the Government Code: Two (2) Cases

**CS5. CONFERENCE WITH LEGAL COUNSEL – POSSIBLE INITIATION OF LITIGATION** pursuant to paragraph (4) of subdivision (d) of Section 54956.9 of the Government Code: One(1) Case

**RECONVENE TO OPEN SESSION**

**CLOSED SESSION REPORT** by General Counsel

**ADJOURNMENT** – The next meeting of the Orange County Fire Authority Board of Directors will be a Concurrent Joint Special Meeting of the Board and all Committees on Thursday, July 14, 2022, at 6:00 p.m.

**AFFIDAVIT OF POSTING**

I hereby certify under penalty of perjury and as required by the State of California, Government Code § 54954.2(a), that the foregoing Agenda was posted in the lobby and front gate public display case of the Orange County Fire Authority, Regional Fire Operations and Training Center, 1 Fire Authority Road, Irvine, CA, not less than 72 hours prior to the meeting.

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Maria D. Huizar, CMC  
Clerk of the Authority

**FUTURE BOARD AGENDA ITEMS – THREE-MONTH OUTLOOK:**

- Labor Negotiations
- Fire Prevention Proclamation
- Accept US&R Cooperative Funding
- Accept UASI Grant Funding
- Accept SHSGP Grant Funding
- Biennial Conflict of Interest Code
- Carryover of Fiscal Year 2021-22 Uncompleted Projects
- Quarterly Purchasing Report

**UPCOMING MEETINGS:**

Budget & Finance Committee  
Concurrent Joint Special Meeting of the  
Board of Directors and all Committees  
Legislative and Public Affairs Committee  
Executive Committee  
Board of Directors  
Concurrent Joint Special Meeting of the  
Board of Directors and all Committees

Wednesday, July 13, 2022, 12 noon  
  
Thursday, July 14, 2022, 6:00 p.m.  
Wednesday, July 20, 2022, 12 noon  
Thursday, July 28, 2022, 5:30 p.m.  
Thursday, July 28, 2022, 6:00 p.m.  
  
Thursday, July 28, 2022, 6:00 p.m.

# **MINUTES ORANGE COUNTY FIRE AUTHORITY**

**Board of Directors Regular and Concurrent Joint Special Meetings  
Thursday, May 26, 2022  
6:00 P.M.**

**Regional Fire Operations and Training Center Board Room  
1 Fire Authority Road  
Irvine, CA 92602-0125**

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## **CALL TO ORDER**

A regular meeting of the Orange County Fire Authority Board of Directors was called to order on May 26, 2022, at 6:04 p.m. by Chair Steggell.

## **INVOCATION**

The invocation was led by Chaplain Devin Chase.

## **PLEDGE OF ALLEGIANCE**

Director Bartlett led the Assembly in the Pledge of Allegiance to the Flag.

## **ROLL CALL**

Michele Steggell, La Palma, Chair  
Lisa Bartlett, County of Orange\*  
Ross Chun, Aliso Viejo\*  
Shelley Hasselbrink, Los Alamitos\*  
Joe Kalmick, Seal Beach  
Austin Lombard, Tustin\*  
Sunny Park, Buena Park\*  
Vince Rossini, Villa Park\*  
Don Sedgwick, Laguna Hills  
Tri Ta, Westminster\*  
Richard Viczorek, Dana Point\*  
Kathleen Ward, San Clemente

Anthony Kuo, Irvine, Vice Chair  
Troy Bourne, San Juan Capistrano\*  
Carol Gamble, Rancho Santa Margarita\*  
Noel Hatch, Laguna Woods  
Jessie Lopez, Santa Ana\*  
John R. O'Neill, Garden Grove  
Sandy Rains, Laguna Niguel\*  
Ed Sachs, Mission Viejo\*  
Dave Shawver, Stanton  
Mark Tettemer, Lake Forest  
Donald P. Wagner, County of Orange\*

**Absent** Gene Hernandez, Yorba Linda

Anne Hertz-Mallari, Cypress

## **Also present were:**

Fire Chief Brian Fennessy  
Deputy Chief Kenny Dossey  
Assistant Chief Stephanie Holloman  
Assistant Chief TJ McGovern  
General Counsel David Kendig  
Clerk of the Authority Maria D. Huizar

Deputy Chief Lori Zeller  
Assistant Chief Jim Ruane  
Assistant Chief Lori Smith  
Assistant Chief Randy Black  
Director of Communications Matt Olson  
Assistant General Counsel Keith Dobyns

*\*Those members attending via Teleconferencing.*

## REPORTS

### **A. Report from the Budget and Finance Committee Chair (FILE 11.12)**

Budget and Finance Committee Chair Ta reported at its May 11, 2022, Committee meeting, the Committee reviewed and recommended forwarding the Third Quarter Purchasing Report and the Organizational Service Level Assessment Update, to the Board of Directors to receive and file the reports. The Committee also reviewed the Fiscal Year 2022/23 Proposed Budget concluding with the recommendation that the Board conduct the Public Hearing and approve the recommended actions.

Directors Sedgwick and Hatch arrived at this point (6:12 p.m.).

### **B. Report from the Human Resources Committee Chair (FILE 11.12)**

Board of Directors Chair Steggell reported at its May 3, 2022, regular meeting of the Human Resources Committee, the Committee received the Professional Standards Unit / Employee Relations Update from Assistant Chief Stephanie Holloman. Risk Manager Rhonda Haynes introduced the Amendment of Professional Services Agreements for Third Party Workers Compensation Administration. The Committee reviewed and approved to forward the item to the Executive Committee for its approval of the recommended actions.

### **C. Report from the Fire Chief (FILE 11.14)**

Fire Chief Brian Fennessy summarized current significant events; Mental Health Awareness Month, Asian American Pacific Islander Heritage Month; and the beginning of Wildfire Awareness and Drowning Prevention Season; which creates a heightened impact on the OCFA's responsibilities. Additionally, this past month firefighters demonstrated their strengths and fortitude fighting the Coastal Fire, and responding to the Laguna Woods Active Shooter incident. OCFA continued to work with the Red Cross installing 500 free smoke alarms for residence, and celebrating its 15<sup>th</sup> Annual Best and Braves Awards event, honoring its own.

## PUBLIC COMMENTS (FILE 11.11)

Kris, no phone number provided, addressed the vision for OCFA, recruitment plan, women in OCFA and diversity.

Libby, no phone number provided, addressed an incident of a fallen resident attended to by firefighters without masks.

Cynthia, no phone number provided, spoke regarding the Orange County Register newspaper article of April 17, 2022, addressing gender separate bathrooms for firefighters.

Cory Johnson, resident of Orange County, addressed concerns about the integrity of the OCFA leadership.

Kathleen, resident with the phone number ending in 1770, spoke of concern regarding the recent survey conducted by Firefighter Local 3631 and its results.

Ann, resident with the phone number ending in 6036, addressed the survey results conducted by Firefighter Local 3631.

## **1. PRESENTATIONS**

No items.

## **2. CONSENT CALENDAR**

On motion of Vice Chair Kuo and second by Director Rossini, and following a roll call vote, approved 23-0 Agenda Items 2A-2D (Directors Hernandez and Hertz-Mallari absent).

### **A. Minutes for the Board of Directors (FILE 11.06)**

Actions:

1. Approve the Minutes for the April 14, 2022, Concurrent Joint Special Meeting as submitted.
2. Approve the Minutes for the April 28, 2022, Regular and Concurrent Joint Special Meeting as submitted.

### **B. Award of Public Works Contract for Tenant Improvements at OCFA Fire Stations 14 & 16 (FILE 19.07C)**

Actions:

1. Approve the plans and specifications for Tenant Improvements at OCFA Fire Stations 14 & 16. (See Attachment Three to this staff report).
2. Accept the Neuroth Construction, Inc bid dated March 8, 2022.
3. Approve and award the public works contract to Neuroth Construction, Inc. in the amount of \$821,227.

### **C. Third Quarter Purchasing Report (FILE 11.10H1)**

Action: Receive and file the report.

### **D. Organizational Service Level Assessment Update (FILE 17.16)**

Action: Receive and file the Organizational Service Level Assessment (SLA) update for Field Deployment, Emergency Medical Services, Emergency Command Center, Fleet Services, Executive Leadership/Human Resources, Business Services, and Community Risk Reduction.

### **3. DISCUSSION ITEMS**

No items.

### **4. PUBLIC HEARING**

#### **A. Review of the Fiscal Year 2022/23 Proposed Budget (FILE 15.04)**

Chair Steggell opened the Public Hearing. There were no speakers and the Hearing closed.

Deputy Chief Lori Zeller presented the Review of the Fiscal Year 2022/23 Proposed Budget.

Brief discussion ensued.

On motion of Director Sachs and second by Director O'Neill, and following a roll call vote, approved 23-0 (Directors Hernandez and Hertz-Mallari absent) to:

1. Conduct a Public Hearing.
2. Adopt the FY 2022/23 Proposed Budget as submitted.
3. Adopt Resolution No. 2022-04 entitled A RESOLUTION OF THE ORANGE COUNTY FIRE AUTHORITY BOARD OF DIRECTORS ADOPTING AND APPROVING THE APPROPRIATIONS BUDGET FOR THE ORANGE COUNTY FIRE AUTHORITY FOR FISCAL YEAR 2022/23.
4. Approve and authorize the temporary transfer of up to \$90 million from the Fund 190 Workers' Compensation Reserve Fund to the General Fund 121 to cover a projected temporary cash flow shortfall for FY 2022/23.
5. Approve and authorize the repayment of \$90 million borrowed funds from Fund 121 to Fund 190 along with interest when General Fund revenues become available in FY 2022/23.
6. Approve changes to the Master Position Control list to unfreeze, reclassify and/or add 38 positions as detailed in Attachment 3.
7. Approve transfers from the General Fund 121 to CIP Funds and Settlement Agreement Fund totaling \$26,110,226.

**RECESSED THE REGULAR MEETING OF THE BOARD OF DIRECTORS**

**CALLED TO ORDER THE CONCURRENT JOINT SPECIAL MEETINGS OF THE: BOARD OF DIRECTORS, EXECUTIVE COMMITTEE, BUDGET & FINANCE COMMITTEE, AND HUMAN RESOURCES COMMITTEE AT :24 P.M.**

**A. Findings Required by AB 361 for the Continued Use of Teleconferencing for Meetings (FILE 11.03)**

General Counsel David Kendig presented the Findings Required by AB 361 for the Continued Use of Teleconferencing for Meetings.

Brief discussion ensued.

On motion of Director Wagner and second by Director Ta, and following a roll call vote, approved 19-4 (Directors Kuo, Rossini, Steggell, and Tettemer opposed, Directors Hernandez and Hertz-Mallari absent) to: select Option #1 to make the following findings:

- a. A state of emergency has been proclaimed by California's Governor due to the COVID-19 pandemic and continues in effect; and
- b. The Board of Directors has reconsidered the circumstances of the emergency; and
- c. State and local officials continue to recommend measures to promote social distancing to slow the spread of COVID-19.

**ADJOURNED THE CONCURRENT JOINT MEETINGS AND RECONVENED TO THE REGULAR MEETING OF THE BOARD OF DIRECTORS AT 7:45 P.M. WITH SAME MEMBERS PRESENT**

**BOARD MEMBER COMMENTS (FILE 11.13)**

Director Hasselbrink commented to the professionalism exhibited during a large industrial building fire in Los Alamitos by both OCFA's Seal Beach and Los Alamitos firefighters.

Director Chun offered to volunteer for the Legislative and Public Affairs committees.

Director Ward offered to serve on both the Legislative and Public Affairs committees. Director Ward asked if OCFA would consider submitting a proposal should San Clemente go out for a Request for Proposal (RFP) for ambulance service.

Director Shawver recognized Assistant Chief Lori Smith and her department who helped to expedite a care facility for seniors recently built in Stanton.

Vice Chair Kuo announced his recent appointment by the City Selection Committee to the County-wide Emergency Medical Care Committee.

Director Bartlett commented that the firefighters did a tremendous job with the Coastal Fire, gave compassion and care to the residents; went over and above the call to duty. Additionally, she

thanked the firefighters who worked in concert with the Sheriff's Department after the Laguna Woods mass shooting.

Director Lombard praised the firefighters who saved the life of a recent drowning victim.

Chair Steggell thanked Communications Director Matt Olson for his great correspondence and noticing to the Board Members, she also noted attending the Best and Bravest Award night, praising the firefighters for their work they do daily in saving lives and caring for the public.

Director Hatch reported on the Laguna Woods mass shooting, expressing what a tragedy it was, noting many firefighters, Battalion Chiefs, and Assistant Chiefs were present to assist. He expressed thanks to OCFA's leadership and staff, and the fire fighters and responders for their presence, and the mayors of the neighboring cities who offered to provide support.

Director Sedgwick reported receiving text messages about the Laguna Woods shooting, recognizing the hero was a physician who had attended to his family in the past. He spoke highly of his character and integrity. He requested the meeting be closed in memory of Doctor John Cheng.

#### **RECESSED TO CLOSED SESSION AT 8:05 P.M. (FILE 11.15)**

#### **CS1. CONFERENCE WITH LABOR NEGOTIATORS** pursuant to Government Code Section 54957.6

Negotiators:

Peter Brown, Liebert Cassidy Whitmore  
and Stephanie Holloman, Assistant Chief/Human  
Resources Director

Employee Organizations:

- Orange County Professional Firefighters Association, IAFF - Local 3631,
- Orange County Employees Association (OCEA), and
- Orange County Fire Authority Management Association (OCFAMA)

#### **CS2. CONFERENCE WITH LEGAL COUNSEL - PUBLIC EMPLOYEE PERFORMANCE EVALUATION** pursuant to Government Code Section 54954.5

Position:

Fire Chief

#### **CS3. CONFERENCE WITH LEGAL COUNSEL - PUBLIC EMPLOYEE PERFORMANCE EVALUATION** pursuant to Government Code Section 54954.5

Position:

General Counsel

**CS4. CONFERENCE WITH LEGAL COUNSEL - SIGNIFICANT EXPOSURE TO LITIGATION** pursuant to paragraph (2) and (3) of subdivision (d) of Section 54956.9 of the Government Code: Two (2) Cases

**RECONVENED TO OPEN SESSION AT 10:11 P.M.**

**CLOSED SESSION REPORT (FILE 11.15)**

General Counsel David Kendig stated there was no reportable action.

**ADJOURNMENT** - Chair Steggell adjourned the meeting at 10:12 p.m. The next meeting of the Orange County Fire Authority Board of Directors is scheduled for Thursday, June 23, 2022, at 6:00 p.m.

**In the Memory of Doctor John Cheng**

who lost his life after heroic efforts to stop the recent mass shooting in Laguna Woods.

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Maria D. Huizar, CMC  
Clerk of the Authority



Orange County Fire Authority  
**AGENDA STAFF REPORT**

Board of Directors Meeting  
June 23, 2022

Agenda Item No. 2B  
Consent Calendar

**CAL FIRE Grant to OCFA for Vegetation Management**

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**Contact(s) for Further Information**

Tim Perkins, Division Chief  
Special Operations

[timperkins@ocfa.org](mailto:timperkins@ocfa.org)

714.573.6761

Justin Neville, Battalion Chief  
Wildland Operations

[justinneville@ocfa.org](mailto:justinneville@ocfa.org)

714.573.6171

**Summary**

This agenda item is submitted for approval of a state Vegetation Management grant award from the Department of Forestry and Fire Protection (Cal Fire) in the amount of \$1,225,000. The proposed project is four-fold, as grant resources will be utilized to (a) purchase supplies and equipment for fuels reduction projects, (b) provide funding for contracts to support fuels reduction work, (c) enhance outreach and education for fire prevention, and (d) support efficient ingress and egress of County-wide unpaved roads with funding for maintenance and grading of roads. These projects will occur within the State Responsibility Area (SRA), Local Responsibility Area (LRA), and Federal Responsibility Area (FRA) across Orange County as OCFA works to enhance collaboration among partners and other agencies. This grant supports OCFA's goal of wildfire ignition reduction, enhanced wildfire suppression, and cooperative pre-fire management vegetation management projects.

**Prior Board/Committee Action**

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 5-0 (Directors O'Neill, Hernandez, Bourne and Tettemer absent).

**RECOMMENDED ACTION(S)**

Approve a budget adjustment to the FY 2022/23 General Fund (121) budget to increase revenues and expenditures by \$1,225,000 for the OCFA Vegetation Management grant.

**Impact to Cities/County**

OCFA's fuel reduction projects will involve Crews and Equipment projects that provide direct benefits to the entire County of Orange, including 3.1 million residents. Projects benefit nearly 300,000 acres of SRA Threat Zone, 11,576 habitable structures within the SRA, and another 130,220 structures within the Very High LRA WUI areas.

**Fiscal Impact**

Increased Cost Funded by Structural Fire Fund: \$0

Increased Cost Funded by Cash Contract Cities: \$0

The FY 2022/23 General Fund revenues and expenditures will increase by \$1,225,000.

## Background

This grant provides the OCFA Crews and Equipment program with the equipment, personnel, equipment maintenance, and equipment supplies necessary to complete maintenance, fuels reduction, and fire prevention projects across the SRA, FRA, and LRA in Orange County. These projects will help keep fires smaller by allowing more efficient access to remote areas while protecting the life and safety of first responders and trail users, while also enabling safe access for firefighters and fire engines to remote areas to fight fires and conduct remote rescue operations. Maintenance of unpaved roadways also helps reduce erosion, runoff, and sedimentation of local streams by installing water control measures and structures (water bars, drains, etc.), protecting natural resources throughout our SRA, FRA, and LRA. OCFA's graders, dozers, and skid steers reduce maintenance costs and maintenance intervals on the roads, increasing carbon sequestration by reducing the use of heavy equipment.

In addition, OCFA's Community Risk Reduction Department will utilize these grant funds to purchase supplies, flyers, and educational information to dispense to communities in the urban interface and intermix. This information is used to educate the citizens on home hardening, "Ready, Set Go!" programs, and creating defensible space.

A summary of the grant's budget is as follows:

<b>Project Budget Category</b>	<b>Amount</b>
<u>Salaries and Wages</u> Overtime costs for OCFA heavy equipment operators and other personnel to support projects throughout the county	\$110,000
<u>Contractual</u> Maintenance services for dozers/heavy equipment, CEQA and technology consulting services, and use of contracted federal personnel on projects	\$580,000
<u>Supplies and Tools</u> Various items including hand tools, chainsaws, and drones	\$250,000
<u>Equipment</u> Personal protective equipment, skid steer parts, portable weather stations, cutting edges, grader tires, drones, dozer extension and miscellaneous items * Significant cost items listed below	\$250,000
<u>Other Costs</u> Outreach and education materials	\$35,000
<b>Total</b>	<b>\$1,225,000</b>

\* OCFA may purchase one of the following fixed capital assets or vehicles with grant funds:

1 Tracker Chipper	\$100,000
1 Maintenance Truck	\$210,000

## Attachment(s)

CAL FIRE Agreement No. 5GA21201 - OCFA Vegetation Management Grant



## DEPARTMENT OF FORESTRY AND FIRE PROTECTION

P.O. Box 944246  
SACRAMENTO, CA 94244-2460  
(916) 653-7772  
Website: [www.fire.ca.gov](http://www.fire.ca.gov)



April 25, 2022

Dave Erickson  
Orange County Fire Authority  
1 Fire Authority Road  
Irvine, CA 92602

**5GA21201; OCFA Vegetation Management**

**This Agreement cannot be considered binding on either party until approved by appropriate authorized CAL FIRE designee. No services should be provided prior to approval, as the State is not obligated to make any payments on any Agreement prior to final approval. FAILURE TO RETURN ALL DOCUMENTS BY DATE BELOW MAY RESULT IN LOSS OF FUNDING.**

**Please contact Jennifer Bower at (714) 573-6251 if you have questions concerning services to be performed.**

1. ☒ Full grant agreement including terms and conditions, project grant application form, scope of work, budget, map, and other exhibits enclosed. Please sign, scan, and return the agreement to Aaron Sabin at [Aaron.Sabin@fire.ca.gov](mailto:Aaron.Sabin@fire.ca.gov) no later than **May 23, 2022**.

Alternatively, you may opt to print (single sided), sign in blue ink, and return the agreement with original signature to:  
CAL FIRE

Attn: Grants Management Unit/FP Grants  
P.O. Box 944246  
Sacramento, CA 94244-2460

**In order to expedite your agreement, a scanned/electronic signature copy of the agreement is preferred.**

2. ☐ Enclosed for your record is one fully executed copy of the agreement referenced above. When billing for services performed under this agreement, your invoices must reference the agreement number above and be submitted to the contract manager.

Thank you,

Aaron Sabin  
Grants Analyst  
Grants Management Unit

CC: Jennifer Bower  
Southern Region Grants  
Tiffany Kelly

Enclosures

State of California  
Department of Forestry and Fire Protection (CAL FIRE)  
Office of the State Fire Marshal  
GRANT AGREEMENT

APPLICANT: Orange County Fire Authority  
PROJECT TITLE: OCFA Vegetation Management  
GRANT AGREEMENT: 5GA21201

**PROJECT PERFORMANCE PERIOD is from Date Upon Approval through March 15, 2026.**

Under the terms and conditions of this Grant Agreement, the applicant agrees to complete the project as described in the project description, and the State of California, acting through the Department of Forestry & Fire Protection, agrees to fund the project up the total state grant amount indicated.


**PROJECT DESCRIPTION:** The proposed project is four-fold, as the funding will purchase supplies and equipment for fuels reduction projects, provide funding for contracts to support fuels reduction work, enhance outreach and education for fire prevention, and support efficient ingress and egress of County-wide unpaved roads with funding for maintenance and grading of roads. This work will help protect the 3.1 million residents within Orange County while benefiting over 300,000 acres of SRA Threat Zone, nearly 11,576 habitable structures within the SRA, and another 130,220 structures within the Very High LRA WUI areas.

Total State Grant not to exceed \$ **1,225,000.00** (or project costs, whichever is less).

*\*The Special and General Provisions attached are made a part of and incorporated into this Grant Agreement.*

Orange County Fire Authority

STATE OF CALIFORNIA  
DEPARTMENT OF FORESTRY  
AND FIRE PROTECTION

Applicant  
By   
Signature of Authorized Representative  
Title **FIRE CHIEF**  
Date **5/16/22**

By \_\_\_\_\_  
Title: **Mike Richwine, State Fire Marshal**  
Date \_\_\_\_\_

**CERTIFICATION OF FUNDING**

GRANT AGREEMENT NUMBER <b>5GA21201</b>	PO ID	SUPPLIER ID 0000072641
FUND 0001	FUND NAME General Fund	
PROJECT ID N/A	ACTIVITY ID N/A	AMOUNT OF ESTIMATE FUNDING <b>\$ 1,225,000.00</b>
GL UNIT N/A	BUD REF 0016	ADJ. INCREASING ENCUMBRANCE <b>\$ 1,225,000.00</b>
PROGRAM NUMBER 2470010	ENY 2021	ADJ. DECREASING ENCUMBRANCE <b>\$ 0.00</b>
ACCOUNT 5340580	ALT ACCOUNT 5340580000	UNENCUMBERED BALANCE <b>\$ 1,225,000.00</b>
REPORTING STRUCTURE 35404004	SERVICE LOCATION 06179	

I hereby certify upon my personal knowledge that budgeted funds are available for this encumbrance.

Signature of CAL FIRE Accounting Officer

Date

TERMS AND CONDITIONS OF GRANT AGREEMENT

**I. RECITALS**

1. This Agreement, is entered into between the State of California, by and through the California Department of Forestry and Fire Protection (CAL FIRE), hereinafter referred to as "STATE" and, Orange County Fire Authority, hereinafter referred to as "GRANTEE".
2. The STATE hereby grants to GRANTEE a sum (hereinafter referred to as "GRANT FUNDS") not to exceed One Million Two Hundred Twenty-Five Thousand Dollars (\$1,225,000.00).
3. In addition to the terms and conditions of this Agreement, the STATE and GRANTEE agree that the terms and conditions contained in the documents set forth below are hereby incorporated and made part of this agreement.
  - a. California Climate Investments Department of Forestry and Fire Protection Fire Prevention Program Procedural Guide FY 2020-2021 and FY2021-2022
  - b. The submitted Application, Scope of Work, Project Budget Workbook, GHG Emissions Workbook and Exhibits
  - c. ADDENDUM – FIRE PREVENTION GRANT PROJECTS

**4. SPECIAL PROVISIONS**

1. Recipients of GRANT FUNDS pursuant to California Public Resources Code Section 4124.5 shall abide by the provisions in this Agreement. This includes the requirement that work shall not commence prior to the execution of this Agreement by both parties. Any work started prior to the execution of this Agreement will not be eligible for funding under the terms of this Agreement.
2. As precedent to the State's obligation to provide funding, GRANTEE shall provide to the STATE for review and approval a detailed budget, specifications, and project description. Approval by the STATE of such plans and specifications, or any other approvals provided for in this Agreement, shall be for scope and quality of work, and shall not relieve GRANTEE of the obligation to carry out any other obligations required by this Agreement, in accordance with applicable law or any other standards ordinarily applied to such work or activity.
3. All informational products (e.g., data, studies, findings, management plans, manuals, photos, etc.) relating to California's natural environment produced with the use of GRANT FUNDS shall be available for public use.

### **III. GENERAL PROVISIONS**

#### **1. Definitions**

- a. The term "Agreement" means grant agreement number 5GA21201.
- b. The term "GRANT FUNDS" means the money provided by the STATE to the GRANTEE in this Agreement.
- c. The term "GRANTEE" means an applicant who has a signed Agreement for the award for GRANT FUNDS.
- d. The term "Other Sources of Funds" means all matching fund sources that are required or used to complete the Project beyond the GRANT FUNDS provided by this Agreement.
- e. The term "STATE" means the State of California, Department of Forestry and Fire Protection (CAL FIRE).
- f. The term "Project" means the development or other activity described in the "Project Scope of Work".
- g. The term "Project Budget Detail" as used herein defines the approved budget plan.
- h. The term "Project Scope of Work" as used herein means the individual scope of work describing in detail the approved tasks.

## 2. Project Representatives

The project representatives during the term of the agreement will be:

STATE: CAL FIRE	GRANTEE: Orange County Fire Authority
Section/Unit: ORC - Orange County	Section/Unit: N/A
Attention: Jeniffer Bower	Attention: Dave Erickson
Mailing Address: Orange County Fire Authority 1, Fire Authority Rd., Irvine, CA 92602	Mailing Address: 1 Fire Authority Road Irvine CA, 92602
Phone Number: (714) 573-6251	Phone Number: (949) 447-0549 Secondary: (714) 573-6178
Email Address: jenniferbower@ocfa.org	Email Address: daviderrickson@ocfa.org

Changes to the project representatives during the term of the agreement shall be made in writing. Notice shall be sent to the above representative for all notice provisions of this Agreement.

## 3. Project Execution

- a. Subject to the availability of grant monies, the STATE hereby grants to the GRANTEE a sum of money (GRANT FUNDS) not to exceed the amount stated on Section I. RECITALS, Paragraph 2 in consideration of and on condition that the sum be expended in carrying out the purposes as set forth in the description of the Project in this Agreement and its attachments and under the terms and conditions set forth in this Agreement.
- b. GRANTEE shall assume any obligation to furnish any additional funds that may be necessary to complete the Project. Any amendment to the Project as set forth in the Application on file with the STATE must be submitted to the STATE for approval in writing. No amendment is allowed until written approval is given by the STATE.
- c. GRANTEE shall complete the Project in accordance with the time of Project performance set forth in this Agreement, unless an amendment has been approved and signed by the STATE under the terms and conditions of this Agreement. Amendments must be requested in advance and will be considered in the event of circumstances beyond the control of the GRANTEE, but in no event less than 90 days from the Agreement expiration date and in no event less than 60 days before the

effective date of the amendment. Approval of amendment is at the STATE's discretion.

- d. GRANTEE certifies that the Project Scope of Work complies with all local, State, and federal laws and regulations.
- e. GRANTEE shall comply with the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000, et. seq. Title 14, California Code of Regulations, Section 15000 et. seq.) and all other local, State, and federal environmental laws. A copy of the certified CEQA document must be provided to STATE before any GRANT FUNDS are made available for any Project activity that could directly impact the environment (e.g. cutting, piling or burning bush, masticating, dozer work, etc.). CEQA compliance shall be completed within one (1) year from start date of the Agreement. The start date is considered the date the last party signs the Agreement. GRANT FUNDS will be made available in advance of CEQA compliance for project activities that do not have the potential to cause a direct environmental impact (e.g. project planning, locating and marking property or project boundaries, contacting and signing up landowners, etc.).
- f. GRANTEE shall permit periodic site visits by representative(s) of the STATE to ensure program compliance and that work is in accordance with the approved Project Scope of Work, including a final inspection upon Project completion.
- g. GRANTEE, and the agents and employees of GRANTEE, in the performance of this Agreement, shall act in an independent capacity and not as officers, employees, or agents, of the STATE. No person who, as an officer, employee, or agent of the state participated in the preparation or creation of or determination to award this Grant Agreement shall serve as an agent or employee of GRANTEE including but not limited to those acts prohibited by Government Code Sections 1090, and 87100.

#### 4. Project Costs and Payment Documentation

- a. Payment by the STATE shall be made after receipt of an acceptable invoice and approval by a duly authorized representative of the STATE. GRANTEE shall submit an invoice for payment to the CAL FIRE Project Representative of the STATE. A final invoice shall be submitted no later than 30 days after completion, expiration, or termination of this Agreement.
- b. For services satisfactorily rendered, and upon receipt and approval of invoices for payment, the STATE agrees to compensate GRANTEE for actual expenditures incurred in accordance with the rates specified herein,

which is attached hereto, as Final Project Budget Detail, and made a part of this Agreement.

- c. Equipment purchased using GRANT FUNDS, wholly or in part, must be used by the GRANTEE for the project which it was acquired. STATE retains a vested interest in the equipment for the useful life of the equipment, even after completion of the grant. GRANTEE shall provide written disposition of the equipment upon completion of the grant and upon any changes to the disposition of the equipment. Such disposition must be approved in advance by STATE. Equipment purchased using GRANT FUNDS cannot be used as collateral, financed, or sold without prior written approval from the STATE.
- d. GRANTEE shall submit, in arrears, not more frequently than once a month, and no less than quarterly, an invoice to the STATE for costs paid by GRANTEE pursuant to this Agreement. Each invoice shall contain the following information: the Agreement number, the dates or time period during which the invoiced costs were incurred, expenditures for the current invoice and cumulative expenditures to date by major budget category (e.g., salaries, benefits, supplies, etc.), appropriate supporting documentation, project progress reports, and the signature of an authorized representative of GRANTEE as detailed in the Invoice Guidelines of the California Climate Investments Department of Forestry and Fire Protection Fire Prevention Program Procedural Guide FY 2020-2021 and FY2021-2022.
- e. GRANT FUNDS in this Agreement have a limited period in which they must be expended. All GRANTEE expenditures must occur prior to the end of the Project performance period of this Agreement.
- f. Except as otherwise provided herein, GRANTEE shall expend GRANT FUNDS in the manner described in the Project Budget Detail approved by the STATE. The dollar amount of an item in the Project Budget Detail may be increased or decreased by up to ten percent (10%) of the budget item through reallocation of funds from another item or items, without approval by the STATE; however, GRANTEE shall notify the STATE in writing in project progress reports when any such reallocation is made, and shall identify both the item(s) being increased and those being decreased. Any increase or decrease of an item of more than ten percent (10%) of the budget item must be approved in writing by the STATE before any such increase or decrease is made. A formal approved amendment is required to increase the total amount of GRANT FUNDS.
- g. GRANTEE shall promptly submit any and all records at the time and in the form as the STATE may request.

- h. GRANTEE shall submit each invoice for payment electronically to both the appropriate CAL FIRE Project Representative as identified in Item 2 and Southern Region Email Address (SouthernRegionGrants@fire.ca.gov). Hard copy submissions will not be accepted.
- i. Notwithstanding any of the provisions stated within this Agreement, the STATE may at its discretion make advance payment from the grant awarded to the GRANTEE if GRANTEE is a nonprofit organization, a local agency, a special district, a private forest landowner or a Native American tribe. Advance payment made by the STATE shall be subject to the following provisions.
  - GRANTEE shall submit a written request identifying how funds will be used over a six-month period. The written request must be accompanied by an invoice that contains the same level of detail as a regular invoice.
  - GRANTEE shall file an accountability report with STATE four months from the date of receiving the funds and every four months thereafter.
  - Multiple advance payments may be made to a GRANTEE over the life of a project.
  - No single advance payment shall exceed 25% of the total grant amount and must be spent on eligible costs within six months of the advance payment request. GRANTEE may request additional time to spend advance funds but must be approved in writing by the STATE. The balance of unspent advance payment funds not liquidated within the six-month spending period will be billed for the return of advanced funds to the STATE.
  - All work under a previous advance payment must be fully liquidated via an invoice and supporting documentation and completed to the STATE's satisfaction before another advance payment will be made.
  - Any advance payment received by a GRANTEE and not used for project eligible costs shall be returned to CAL FIRE. The amount will be returned to the grant balance.
  - Advance payments must be deposited into an interest-bearing account. Any interest earned on advance payment funds must be accounted for and used toward offsetting the project cost or returned to the STATE.

#### 5. Budget Contingency Clause

- a. If STATE funding for any fiscal year is reduced or deleted for purposes of the Fire Prevention Program California Climate Investments Grant Program, the STATE shall have the option to either cancel this Agreement

with no liability occurring to the STATE, or if possible and desirable, offer an Agreement amendment to GRANTEE to reflect the reduced amount available for the Project.

#### 6. Project Administration

- a. GRANTEE shall provide the STATE a written report showing total final Project expenditures and matching funds upon Project completion or grant expiration, whichever occurs first. GRANTEE must report to the STATE all sources of other funds for the Project. If this provision is deemed to be violated, the STATE will request an audit of GRANTEE and can delay the disbursement of funds until the matter is resolved.
- b. GRANTEE shall promptly submit written Project reports as the STATE may request throughout the term of this Agreement.
- c. GRANTEE shall submit a final accomplishment report, final invoice with associated supporting documentation, and copies of materials developed using GRANT FUNDS, including but not limited to plans, educational materials, etc. within 30 days of Project completion.

#### 7. Financial Records

- a. GRANTEE shall retain all records described in Section 7(c) below for three (3) years after final payment by the STATE. In the case an audit occurs, all such records shall be retained for one (1) year from the date is audit is completed or the three (3) years, whichever date is later.
- b. GRANTEE shall maintain satisfactory financial accounts, documents, and records for the Project and make them available to the STATE for review during reasonable times. This includes the right to inspect and make copies of any books, records, or reports of GRANTEE pertaining to this Agreement or matters related thereto.
- c. GRANTEE shall keep such records as the STATE shall prescribe, including, but not limited to, records which fully disclose (a) the disposition of the proceeds of state funding assistance, (b) the total cost of the Project in connection with such assistance that is given or used, (c) the amount and nature of that portion of the Project cost supplied by other sources, and (d) any other such records as will facilitate an effective audit. All records shall be made available to the STATE, other State of California agency, or other entity as determined by the State of California for auditing purposes at reasonable times.
- d. GRANTEE shall use any generally accepted accounting system.

8. Research

- a. GRANTEE that receives funding, in whole or in part, in the form of a research grant shall provide for free public access to any publication of a peer-reviewed manuscript describing STATE funded knowledge, STATE funded invention, or STATE funded technology shall be subject to the following conditions:
  - i. GRANTEE is responsible for ensuring that any publishing or copyright agreements concerning peer-reviewed manuscripts fully comply with this section
  - ii. GRANTEE shall report to STATE the final disposition of the peer-reviewed manuscript, including, but not limited to, if it was published, date of publication, where it was published, and, when the 12-month time period from official date of publication expires, where the peer-reviewed manuscript will be available for open access.
- b. For a peer-reviewed manuscript that is accepted for publication pursuant to the terms and conditions of this Agreement, the GRANTEE shall ensure that an electronic version of the peer-reviewed manuscript is available to STATE and on an appropriate publicly accessible repository approved by the state agency, including, but not limited to, the University of California's eScholarship Repository at the California Digital Library, the California State University's ScholarWorks at the Systemwide Digital Library, or PubMed Central, to be made publicly available not later than 12 months after the official date of publication. GRANTEE shall make reasonable efforts to comply with this requirement by ensuring that the peer-reviewed manuscript is accessible on an approved publicly accessible repository, including notifying the state agency that the manuscript is available on a state-agency-approved repository. If the grantee is unable to ensure that his or her manuscript is accessible on an approved, publicly accessible repository, the grantee may comply by providing the manuscript to the state agency not later than 12 months after the official date of publication.
- c. For publications other than those described in (b), including scientific meeting abstracts, GRANTEE shall comply by providing the manuscript to the STATE not later than 12 months after the official date of publication.
- d. The grant shall not be construed to authorize use of a peer-reviewed manuscript that would constitute an infringement of copyright under the federal copyright law described in Section 101 of Title 17 of the United States Code and following.

- e. Use of GRANT FUNDS for publication costs, including fees charged by a publisher for color and page charges, or fees for digital distribution are allowable costs but must be within the GRANT FUNDS and item 4 of the agreement.
- f. GRANTEE may request a waiver to the publication requirement if GRANTEE has an existing publication requirement that meets or exceeds the requirements of the research provision. Waiver shall include information on GRANTEE's existing requirements. Approval of the waiver is at STATE's discretion.

#### 9. Project Termination

- a. This Agreement may be terminated by the STATE or GRANTEE upon 30-days written notice to the other party.
- b. If either party terminates the Agreement prior to the completion of the Project, GRANTEE shall take all reasonable measures to prevent further costs to the STATE under the Agreement and the STATE shall be responsible for any reasonable and non-cancelable obligations incurred by GRANTEE in the performance of this Agreement prior to the date of the notice to terminate, but only up to the undisbursed balance of funding authorized in this Agreement.
- c. Failure by GRANTEE to comply with the terms of this Agreement may be cause for suspension of all obligations of the STATE hereunder at the discretion of the STATE.
- d. Failure of GRANTEE to comply with the terms of this Agreement shall not be cause for the suspension of all obligations of the STATE hereunder if in the judgment of the STATE such failure was due to no fault of GRANTEE. At the discretion of the STATE, any amount required to settle at minimum cost any irrevocable obligations properly incurred shall be eligible for reimbursement under this Agreement.
- e. Final payment to GRANTEE may not be made until the STATE determines the Project conforms substantially to this Agreement.

#### 10. Hold Harmless

- a. GRANTEE shall defend, indemnify and hold the STATE, its officers, employees, and agents harmless from and against any and all liability, loss, expense (including reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorney's fees, or claims for injury or damages are caused by or result from the negligent

or intentional acts or omissions of GRANTEE, its officers, agents, or employees. The duty of GRANTEE to indemnify and hold harmless includes the duty to defend as set forth in Civil Code Section 2778. This Agreement supersedes GRANTEE's right as a public entity to indemnity (see Government Code Section 895.2) and contribution (see Government Code Section 895.6) as set forth in Government Code Section 895.4.

- b. GRANTEE waives any and all rights to any type of express or implied indemnity or right of contribution from the STATE, its officers, agents, or employees for any liability resulting from, growing out of, or in any way connected with or incident to this Agreement.
- c. Nothing in this Agreement is intended to create in the public or in any member of it rights as a third-party beneficiary under this Agreement.

#### 11. Tort Claims

##### FEDERAL:

The United States shall be liable, to the extent allowed by the Federal Tort Claims Act 28 United States Code 2671-2680, for claims of personal injuries or property damage resulting from the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his or her employment, arising out of this Agreement.

##### STATE:

The State of California shall be liable, to the extent allowed by law and subject to California Government Code, Title 1, Division 3.6, providing for the filing of tort claims against the State of California, for personal injuries or property damage resulting from the negligent or wrongful act or omission of State of California employees while acting within the scope of his or her employment, arising out of this Agreement.

#### 12. Nondiscrimination

The State of California prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, sex, marital status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. GRANTEE shall not discriminate against any person on any of these bases.

#### 13. Conflict of Interest

GRANTEE or anyone acting on behalf of GRANTEE shall not have any conflicting personal and/or financial interests in carrying out the duties of the Agreement.

14. Incorporation

The grant guidelines and the Project Scope of Work, Project Budget Detail and any subsequent amendments or modifications to the Project Scope of Work and Project Budget Detail approved in writing by the STATE are hereby incorporated by reference into this Agreement as though set forth in full in this Agreement.

15. Severability

If any provision of this Agreement or the Project Scope of Work thereof is held invalid, that invalidity shall not affect other provisions or applications of this Agreement which can be given effect without the invalid provision or application, and to this end the provisions of this Agreement are severable.

16. Waiver

No term or provision hereof will be considered waived by either party, and no breach excused by either party, unless such waiver or consent is in writing and signed on behalf of the party against whom the waiver is asserted. No consent by either party to, or waiver of, a breach by either party, whether expressed or implied, will constitute consent to, waiver of, or excuse of any other, different, or subsequent breach by either party.

17. Assignment

This Agreement is not assignable by GRANTEE either in whole or in part.

ADDENDUM – FIRE PREVENTION GRANT PROJECTS

**I. PROGRAM ACKNOWLEDGEMENT/RECOGNITION**

All Fire Prevention Grant projects must clearly display, identify and label themselves as being funded by CAL FIRE. Acknowledgements must contain the CAL FIRE logo as well as the following statement:

*“Funding for this project provided by the California Department of Forestry and Fire Protection’s Fire Prevention Program.”*

A draft of the acknowledgement must be approved by the STATE prior to publication. For stationary projects, acknowledgement may include, but is not limited to, a sign on the project site. For other project types, such as vehicles, equipment, and consumer-based incentives, acknowledgement is encouraged by using a decal, sticker or other signage.

ADDENDUM – CALIFORNIA CLIMATE INVESTMENTS (CCI) GRANT PROJECTS

**I. SPECIAL PROVISIONS**

1. Grant funds shall be used on projects with the primary goal of reducing greenhouse gases (GHGs) and furthering the purposes of California's Global Warming Solutions Act of 2006, Division 25.5 (commencing with Section 38500) of the Health and Safety Code, and related statutes.
2. Grant funds shall be used on projects limited to specific activities as described in CCI Grants Procedural Guides.
3. Grantee shall report project and benefits information when requested by the State. This may include, but is not limited to, funding expended, acres treated, GHG emissions, trees planted, disadvantaged community benefits, energy/water savings, job creation, and other co-benefits.
4. Grantee shall maintain accurate and detailed records documenting project description, project location, and schedule, CCI dollars allocated, and leveraged funds throughout the duration of the project.
5. Failure of Grantee to meet the agreed upon terms of achieving required GHG reduction may result in project termination and recovery of funds.

**II. MONITORING AND REPORTING REQUIREMENTS**

All funds expended through CCI are subject to emissions reporting and requirements. Grantee is expected to provide the appropriate materials for completing program quantification methodology. Grantee shall use the current reporting template provided by the STATE. The reporting shall be submitted to the STATE no less frequently than quarterly. In addition, STATE may request additional information in order to meet current CARB reporting requirements. The requirements are available on the CARB CCI Quantification, Benefits and Reporting Materials webpage:

<https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials>.

### III. PROGRAM ACKNOWLEDGEMENT/RECOGNITION

1. All projects funded both fully and partially by the GGRF must clearly display, identify and label themselves as being part of the “California Climate Investments” program. The acknowledgement must contain the California Climate Investments and CAL FIRE logos as well as the following statement:

*“Funding for this project provided by the California Department of Forestry and Fire Protection’s Fire Prevention Program as part of the California Climate Investments Program.”*

A draft of the acknowledgement must be approved by the STATE prior to publication. For stationary projects, acknowledgement may include, but is not limited to, a sign on the project site. For other project types, such as vehicles, equipment, and consumer-based incentives, acknowledgement is encouraged by using a decal, sticker or other signage.

Guidance on California Climate Investments logo usage, signage guidelines, and high-resolution files are contained in a style guide available at:  
[www.caclimateinvestments.ca.gov/logo-graphics-request](http://www.caclimateinvestments.ca.gov/logo-graphics-request).

2. In addition, all projects funded both fully and partially by GGRF must contain the following statement in public announcements or press releases on said projects:

“OCFA Vegetation Management is part of California Climate Investments, a statewide program that puts billions of Cap-and-Trade dollars to work reducing GHG emissions, strengthening the economy, and improving public health and the environment— particularly in disadvantaged communities. The Cap-and-Trade program also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution. California Climate Investments projects include affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, more sustainable agriculture, recycling, and much more. At least 35 percent of these investments are located within and benefiting residents of disadvantaged communities, low-income communities, and low-income households across California. For more information, visit the California Climate Investments website at: [www.caclimateinvestments.ca.gov](http://www.caclimateinvestments.ca.gov).”

California Department of Forestry and Fire Protection (CALFIRE)  
California Climate Investments  
Fire Prevention Program Grant Application  
Fiscal Year 2021-22 Funding Opportunity



Please request a Project Tracking # for each separate application by following the instructions in the 2021-22 [California Climate Investments](#) (CCI) Grant Guidelines on the [Fire Prevention Grants Web Page](#). Submit the application and all supporting materials to the SharePoint folder assigned to your tracking number **no later than 3:00pm PT on February 9, 2022**. Up to \$120 million is being allocated to CAL FIRE's Fire Prevention Grants Program in Fiscal Year 2021-2022 from the CCI Greenhouse Gas Reduction Fund (GGRF) and General Fund.

**Please note: Items marked in red are required.**

1. **Project Tracking #:** 21-CSR-ORC-4004

Project Name/Title: OCFA Vegetation Management

County: Orange

CAL FIRE Unit/Contract County: ORC - Orange County

(Please use this 3-letter Unit Identifier for file naming. See item 14.)

CalMAPPER ID:

(If you have an existing CalMAPPER ID related to the project please supply it in the appropriate box. If you do not have an existing CalMapper ID, it is **NOT required**.)

2. **Organization Type:** County If Other, please specify:

If Non-Profit, are you a registered 501(c)(3)? ☐ Yes ☐ No

3. **Sponsoring Organization:** Orange County Fire Authority

**Project Manager Title:** Wildland Resource Planner

First Name: Dave

Last Name: Erickson

Address Line 1: 1 Fire Authority Road

Address Line 2:

City: Irvine

State: California

Zip Code: 92602

Phone Number: (949) 447-0549

Secondary Phone Number: (714) 573-6178

Email Address: davierickson@ocfa.org

Fax Number:

Tracking #: 21-CSR-ORC-4004

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Project Name: OCFA Vegetation Management

4. For which primary activity is funding being requested? Hazardous Fuels Reduction

5. Project Completion Date:

If your project is expected to be completed earlier than March 15, 2026, please include a date here. Otherwise, leave blank. Please use MM/DD/YYYY format.

6. **Timber Harvest Plans:** For fuel reduction projects, is there a timber harvesting document on any portion of the proposed project area for which a "Notice of Completion" has not been filed with CAL FIRE?

☐ If checked, provide the THP identification number and describe the relationship to the project in the attached Scope of Work document.

THP ID Number:

7. **Community at Risk:** Is the project associated with a community that is listed as a Community at Risk? See the list of [Communities at Risk](#) on the Office of the State Fire Marshal web page.

☒ Yes

☐ No

Number of Communities in the project area: 20

8. **Disadvantaged/Low Income Community:** Is the project associated with a low-income community that is listed as a Community at Risk? See the information on [Priority Population Investments](#) on the California Air Resources Board web page.

☒ Yes

☐ No

If Yes, select all that applies:

☐ Disadvantaged

☐ Low Income

☒ Both

☐ Buffer Zone

**9. Federal Responsibility Area:** Does your project/activity include work on Federal Lands that might require a National Environmental Policy Act (NEPA) document, or use a framework similar to Good Neighbor Authority?

☒ Yes

☐ No

If Yes, please select all that apply:

☐ Good Neighbor Authority

☒ National Environmental Policy Act

Does your project/activity include work on Tribal Lands:

☐ Yes

☒ No

If yes, how many acres?

**10. Project Area Statistics:** For all projects, provide an estimate of the Project Influence Zone (PIZ) acres and the Treatment Influence Zone (TIZ) acres.

**PIZ** - The Project influence Zone (PIZ) is the broad geographic area encompassing the neighborhoods or communities that the grant proposal is designed to protect with fuel reductions, public education, or planning activities. This can be the sum of all treatment areas or could include a buffer area around the planning/public education target. Please keep the PIZ from encompassing an overly large area, unless benefits are clearly defined in the Scope-of-Work.

**TIZ** - Treatments are areas within a PIZ, where on-the-ground activities are accomplished (e.g. hazard fuel reductions, shaded fuel breaks, masticating, etc.). There can be multiple discrete Treatment areas associated with a PIZ. Some projects (e.g. Planning & Public Education) may NOT have treatment areas.

	LRA	FRA	SRA
Project Influence Zone (PIZ)	314,545.00	78,538.00	118,328.00
Treatment Influence Zone (TIZ)	314,545.00	78,538.00	118,328.00

Tracking #: 21-CSR-ORC-4004

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Project Name: OCFA Vegetation Management

**11. Project Budget:** Please include a discussion of the project budget in the Scope of Work and enter the total Amount of award requested below.

Budget Item	Amount
Grant Funding Requested (\$)	1,225,000.00

**12. CEQA Compliance:** Describe how compliance with the California Environmental Quality Act (CEQA) will be achieved in the Scope of Work. Is there an existing (CEQA) document that addresses this project or can be used to meet CEQA requirements?

Please indicate the CEQA document type (For planning, education and other projects that are exempt from CEQA, select "Not Applicable"):

Notice of Exemption

Document Identification Number:

**13.** Have you applied for or received any other CAL FIRE Grants for this project?

☐ Yes

☒ No

If **yes**, please identify the other CAL FIRE grant program and how the additional grant will be or is being applied to this project.

#### 14. Application Submission:

**Note to Applicant:** If you modify the language contained in any part of this document, other than to fill in the blanks or to provide requested information, your application **will be rejected**.

Use the table below as a tool to make sure you have all documents ready prior to submitting the application.

Replace "XXXX" in the file name with the project's ID Number. Replace "UUU" in the file name with the 3-letter identifier for the Unit where the project is located. Unit identifiers are listed in the instructions for this application form.

Attachments	File Name
<input checked="" type="checkbox"/> Application Form (.pdf)	21-CSR-ORC-4004-Application.pdf
<input checked="" type="checkbox"/> Scope of Work (.doc)	21-CSR-ORC-4004-SOW.doc
<input checked="" type="checkbox"/> Project Budget (.xls)	21-CSR-ORC-4004-Budget.xls
<input checked="" type="checkbox"/> Project Map (.pdf)	21-CSR-ORC-4004-MAP.pdf
<input type="checkbox"/> Articles of Incorporation (.pdf) - Applies to Non-Profits only	21-FP-UUU-XXXX-AOI.pdf
<input type="checkbox"/> Mapping	<a href="#">Create a Geo Point &amp; Polygon</a> web link

I certify that the above and attached information is true and correct:



**Original Signature Required: Grantee's Authorized Representative**

03/14/2022

**Date Signed**

Dave Erickson

**Printed Name**

Wildland Resource

**Title**

Executed on: 3/14/22

**Date**

at

Irvine

**City**

Please fill out this form completely. Be sure to save a copy of this form and all attachments for your records. Submit the application and all supporting materials to the SharePoint folder assigned to your tracking number **no later than 3:00pm PT on February 9, 2022**. Please submit the documents as early as possible to avoid unanticipated issues. **Applications submitted or modified in the SharePoint folder after this date will be considered late.** Access to SharePoint after the due date may be revoked.

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Project Name: OCFA Vegetation Management



California Department of Forestry and Fire Protection  
(CAL FIRE) California Climate Investments  
Fire Prevention Grants Program  
Project Scope of Work



**Project Name: OCFA Vegetation Management**

**Project Tracking Number: 21-CSR-ORC-4004**

**Project Description Summary:** Please provide a paragraph summarizing proposed project, including the location, habitable structures, acres treated, etc. (Please type in blank space below. Please note there is no space limitations).

The proposed project is four-fold, as the funding will: a. purchase supplies and equipment for fuels reduction projects, b. provide funding for contracts to support fuels reduction work, c. enhance outreach and education for fire prevention, and d. support efficient ingress and egress of County-wide unpaved roads with funding for maintenance and grading of roads. As wildfire knows no boundaries, these projects will occur within SRA, LRA, and FRA across Orange County as OCFA works to enhance collaboration among partners and agencies in support of the goal of wildfire ignition reduction, enhanced wildfire suppression, and cooperative pre-fire management vegetation management projects.

This work will help protect the 3.1 million residents within Orange County while benefitting over 300,000 acres of SRA Threat Zone, nearly 11,576 habitable structures within the SRA, and another 130,220 structures within the Very High LRA WUI areas.

**A. Scope of Work**

This item is broken into project specific criteria depending on the type of project being proposed: Wildfire Prevention Planning, Wildfire Prevention Education or Hazardous Fuels Reduction. Please **answer one section of questions** that pertain to the primary activity type for your project.

**Section 1: Hazardous Fuels Reduction**

1. Describe the geographic scope of the project, including an estimate of the number of habitable structures and the names of the general communities that will benefit.
2. Describe the goals, objectives, and expected outcomes of the project.
3. Provide a clear rationale for how the proposed project will reduce the risks associated with wildfire to habitable structures.
4. Identify any additional assets at risk to wildfire that will benefit from the proposed project. These may include, but are not tied to, domestic and municipal water supplies, power lines, communication facilities and community centers.
5. How will the project/activity utilize the left-over woody biomass? Will the project/activity use a biomass facility to reduce greater greenhouse gas emissions?

Answer only 1 set of questions from above, depending on your project: Hazardous Fuels Reduction, Wildfire Prevention Planning or Wildfire Prevention Education. (Please type in blank space below. Please note there is no space limitations).

A. **Geographic Scope:** OCFA's fuel reduction projects will involve Crews and Equipment projects that provide direct benefits to the entire County of Orange: 3.1 million residents within Orange County while benefitting nearly 300,000 acres of SRA Threat Zone, 11,576 habitable structures within the SRA, and another 130,220 structures within the Very High LRA WUI areas. The scope of work is broken down into four areas.

A. Fuels Reduction

a. Dead, diseased, dying, and non-native and invasive tree removal in the following areas:

- i. East Orange County Canyons
- ii. Highway 133 corridor
- iii. Bell Canyon
- iv. Irvine Lake
- v. Irvine Open Space
- vi. Orange County Park land
- vii. State Park land
- viii. LRA
- ix. FRA

b. Vegetation management projects to reduce roadside ignitions

- i. Roadside hardening projects across the county, prioritized by finding "hot spots" of ignitions using historical ignitions data

c. Fuel Breaks created and/or maintained in the following areas:

- i. Ortega Hwy Corridor
- ii. Santiago Truck Trail
- iii. Silverado Truck Trail
- iv. Rancho Mission Viejo
- v. Cleveland National Forest
- vi. Additional SRA, LRA, and FRA areas

d. Prescribed fire projects

- i. Baker Canyon
- ii. Crowe Center
- iii. SRA, LRA, and FRA areas

e. Personnel Time for project implementation

- i. Funding from this grant will be used to support additional equipment operators on projects throughout the County

B. Road Grading and brushing

- i. County-wide in SRA, LRA, and FRA areas
- b. Cleveland NF
  - i. Maple Springs
  - ii. Harding Truck Trail
  - iii. North Main Divide
  - iv. Bedford Truck Trail
  - v. Additional FRA areas in Orange County and SRA Threat Zone

**C. Equipment and supply purchases**

- a. OCFA is interested in purchasing one or more of the following pieces of equipment and supplies
  - AWD Grader
  - Portable RAWS
  - Tracker Chipper
  - Crew PPE/Equipment
  - Skid steer Tracks
  - Skid Steer under carriage
  - Cutting Edges and Hardware
  - PPE
  - Chain saws
  - Fire packs
  - Hand tools
  - Grader tires
  - Tractor maintenance
  - Masticator maintenance
  - Dozer Extension
  - Dozer maintenance
  - Dozer technology and Equipment
  - Drones
  - Maintenance truck

**D. Community risk reduction supplies and Fire Danger support**

- a. Outreach materials such as flyers, handouts, tri-folds
- b. Contract with Technosylva Wildfire Analyst to help support the OCFA Fire Danger Operating Plan
- c. Supplies such as easy up awnings, tables, etc for outreach and education

**E. Goals, Objectives, and Expected Outcomes:**

The primary goal of the direct award grant is to provide the OCFA Crews and Equipment program with the equipment, personnel, equipment maintenance, and equipment supplies necessary to complete maintenance, fuels reduction, and fire

prevention projects across the SRA, FRA, and LRA in Orange County. These projects will help keep fires smaller by allowing more efficient access to remote areas while protecting the life and safety of first responders and trail users by enabling safe access for firefighters and fire engines to remote areas to fight fires and conduct remote rescue operations. Maintenance of unpaved roadways also helps reduce erosion, runoff, and sedimentation of local streams by installing water control measures and structures (water bars, drains, etc.), protecting natural resources throughout our SRA, FRA, and LRA. OCFA's graders, dozers, and skid steers reduce maintenance costs and maintenance intervals on the roads, increasing carbon sequestration by reducing the use of heavy equipment.

OCFA's Community Risk Reduction will benefit from the grant to purchase supplies, flyers, and educational information to dispense to communities in the urban interface and intermix. This information is used to educate the citizens on Home Hardening, Ready, Set Go Programs, and Creating Defensible Space.

- F. **Risk Reduction:** OCFA grades and brushes ~250 miles of roads that create a sustainable road network for land management and safety operations while providing maximum feasible environmental protection. These roads are critical for emergency egress and are often the only way in and out of the SRA. The reduction of the vegetation will improve emergency access and help create fuels breaks off of unpaved roadways. OCFA will also conduct projects with partners to harden roadsides to make them less prone to ignitions.

OCFA will also focus on creating a modified fuel break along roads, reduction of the fuel load (including ladder fuels) around densely packed homes, and increase defensible space. These fuel reduction projects completed by the OCFA Crews and Equipment program and/or contractors will also improve visibility allowing for faster response and ingress times. They will help reduce a structure fire from spreading to the WUI and threatening additional structures and communities.

- G. **Additional Assets at Risk:** The roads graded and brushed by the OCFA Crews and Equipment program provide access into the SRA for wildfire response, land management, and utility operations. These roads lead to municipal water supplies for Irvine Ranch Water District, Serrano Water District, and many others, as well as powerlines and utility stations owned and operated by Southern California Edison and San Diego Gas and Electric. Communication facilities owned and operated by the County of Orange and Orange County Sheriff's Department, and others. The road maintenance and vegetation management provided by the OCFA Crews and Equipment program mitigates fuel sources for
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wildfire. It will ensure that access is available to fire crews, thereby reducing the risks to all additional assets listed above and keeping fires smaller.

- H. **BIOMASS:** Most of the biomass created from the fuel reduction projects is either lopped and scattered or chipped on site. Some of the fuel removed is hauled to nearby green waste facilities, where it is left to compost. Based on the location of the closest biomass energy facility, GreenLeaf Power, located ~ 121 miles away, it is not an efficient use of carbon to haul debris there for use in bioenergy.

**B. Degree of Risk**

1. Discuss the location of the project in relation to areas of moderate, high, or very high fire hazard severity zone as identified by the latest Fire and Resource Assessment Program maps. Fire hazard severity zone maps by county can be accessed at: [http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_zones\\_maps.php](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps.php)
2. Describe the geographic proximity of the project to structures at risk to damage from wildfire. (Please type in blank space below. Please note there is no space limitations).

1. Hazard: Projects completed by OCFA's Crews and Equipment program and Community Risk Reduction program focus on areas in the very high SRA fire hazard severity zones, as well as across the ~300,000 acres of SRA Threat Zone, but will also encompass the areas of LRA and FRA in Orange County as well. These projects and purchases could directly impact the 3.1 million residents in Orange County.

2. Structures in WUI: The OCFA Crews and Equipment, and Community Risk Reduction projects will directly benefit the 3.1 million residents within Orange County while benefitting nearly 300,000 acres of SRA Threat Zone, 11,576 habitable structures within the SRA, and another 130,220 structures within the Very High LRA WUI areas. The OCFA Crews and Equipment projects will be conducted in thousands of acres of open spaces directly adjacent to thousands of homes within the WUI, LRA and FRA. The completion of these fuels projects reduces fuel sources and prevents ignition and the spread of wildfires. It will also provide safe access for crews during active incidents and enhance evacuation of homes within the WUI.

**C. Community Support**

1. Does the project include any matching funds from other funding sources or any in-kind contributions that are expected to extend the impact of the proposed project?
2. Describe plans for external communications during the life of the project to keep the effected community informed about the goals, objectives, and progress of the project. Activities such as planned press releases, project signage, community meetings, and field tours are encouraged.

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3. Describe any plans to maintain the project after the grant period has ended.
4. Does the proposed project work with other organizations or agencies to address fire hazard reduction at the landscape level?  
(Please type in blank space below. Please note there is no space limitations).

1. Matching: Matching will come from OCFA in the form of grant administration, purchasing of equipment and tools, equipment maintenance and upkeep, and supplies. For equipment maintenance projects that are too complex to do in-house, a contract will be set up with the local Caterpillar shop to take care of any additional maintenance needs.

2. External Communications: OCFA has many partnerships within landownerships in the SRA, LRA, FRA, and SRA Threat Zones, such as the County of Orange Area Safety Taskforce (COAST) and the Cleveland National Forest. If this grant is awarded, our partners will be informed of the new purchases and potential uses on their land. OCFA PIO also represents the Crews and Equipment section and Community Risk Reduction Programs with social media posts about fuels projects and Wildfire Ready Programs, which reach thousands of citizens.

3. Post-project maintenance: OCFA will maintain all equipment purchased through the grant in perpetuity. A portion of the OCFA budget will be made available for the upkeep and maintenance of the equipment once the grant period has ended.

4. Fire reduction on landscape scale: The award of this grant directly involves working with other organizations to address fire hazard reduction at the landscape level. Through the OCFA COAST partnership, OCFA has partnerships with utilities such as Southern California Edison and San Diego Gas and Electric, large SRA, FRA and LRA landowners such as Rancho Mission Viejo, Starr Ranch Audubon, City of Irvine, Orange County Parks, Cleveland National Forest and more, where fuel reduction projects will occur using the new equipment and tools. These partnerships will be enhanced through the use of mutually beneficial projects that will increase fire safety and reduce the chances for largescale wildfires.

#### **D. Project Implementation**

1. Discuss the anticipated timeline for the project. Make sure to take seasonal restrictions into account.
2. Verify the expected time frames to complete the project will fall under the required completion dates depending on the source of the funds awarded.
3. Using bullets, list the milestones that will be used to measure the progress of the project.
4. Using bullets, list the measurable outcomes (i.e., project deliverables) that will be used to measure the project's success.

5. If applicable, how will the requirements of the California Environmental Quality Act (CEQA) be met?
6. Are there any existing forest or land management plans; Conservation Easements; Covenant, Conditions & Restrictions (CC&R's); matters related to zoning; use restrictions, or other factors that can or will limit the wildfire prevention proposed activity?  
(Please type in blank space below. Please note there is no space limitations).

1. Timeline: Once the grant is awarded, projects will start, equipment and supplies will be ordered. Using contractors to support project work will be evaluated on a case-by-case basis. There are no seasonal restrictions.

2. Timeframes: The timeframes for delivery of the equipment are dependent on the manufacturer and inventory availability. Projects that have already been identified will be implemented as soon as environmental clearance has occurred (if it has not already been covered) and will be based on contracting time. OCFA will conduct projects that it has identified immediately upon receipt of the funding.

3. Milestones: Milestones for the purchases 1) purchasing of the equipment and tools 2) receiving the equipment, 3) making the equipment available to the OCFA Crews and Equipment program, 4) providing contractors for projects, and 5) reporting acres treated to CAL FIRE

4. Deliverables: The project deliverable used to measure the project's success will be when each piece of equipment is made available to OCFA Crews and Equipment program to use, and acres treated are reported to CAL FIRE.

5. CEQA: The CEQA process is applicable for this project and will be taken care of through a contract with an environmental consultant.

## **E. Administration**

1. Describe any previous experience the project proponent has with similar projects. Include a list of recent past projects the proponent has successfully completed if applicable. Project proponents having no previous experience with similar projects should discuss any past experiences that may help show a capacity to successfully complete the project being proposed. This may include partnering with a more experienced organization that can provide project support.
2. Identify who will be responsible for tracking project expenses and maintaining project records in a manner that allows for a full audit trail of any awarded grant funds.  
(Please type in blank space below. Please note there is no space limitations).

1. Previous experience: OCFA has significant experience in receiving, and carrying out, grants, and is also compliant with federal statutes and OMB regulations that require a single audit annually. In addition, OCFA has never been audited by a funding agency, other than routine agreement tracking. Examples of OCFA's most recent grant experience include the following:

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(a) 2009 - Assistance to Firefighters Grant (AFG) Regional Award for \$337,400: OCFA acted as the host agency to administer this completed grant award for the purchase of VHF portable radios, repeaters and training that benefited several Orange County fire agencies, which resulted in better inter-fire agency communication.

(b) May 2011 - FEMA Fire Prevention & Safety Grant for \$332,000 (Federal Share): Awarded for the purchase and installation of smoke alarms and cooking safety devices in high-risk communities, the result of this completed grant was that several thousand smoke alarms and cooking safety devices were purchased and installed in high-risk communities.

(c) 2011 - AFG Award for \$1.4 million (Federal Share): Awarded to purchase new SCBA's, this completed grant has resulted in improved firefighter safety from the purchase of 400+ SCBA's.

(d) 2012 - AFG Award for \$137,000 (Federal Share): Awarded for the purchase of thermal imaging cameras, this completed grant has improved operations for fire rescues in smoke-filled environments, as a result of using the thermal imaging cameras.

(e) 2013 - FEMA Legislative Pre-Disaster Mitigation Grant for \$252,000 (Federal Share): Awarded for the installation of a new generator at OCFA's Air Operations Fire Station, once complete, this grant will improve reliability, and reduce the risk of a power failure at our Air Operations Fire Station caused by large disasters.

(f) 2013 - California Fire Safe Council Grants Clearinghouse for \$200,000+: This grant is scheduled to close in early 2015, and to date, it has funded fuel reduction projects, wildfire education initiatives, including a large-scale community evacuation drill, plus several Chipper Days events in the WUI community of Cowan Heights. Results include hazardous fuels reductions, restoration/replanting with native vegetation, a better informed and prepared public, and a better coordinated emergency response community.

2. Project Tracking: The OCFA Pre-Fire Management team will be responsible for project tracking and budgeting. This team is led by Wildland Battalion Chief Justin Neville, Deputy Fire Marshal Jennifer Bower, Wildland Resource Planner Dave Erickson and Business Analyst Ariana Ramos. The PFM team will work internally with the Finance Dept to ensure that financial records are kept in a manner that allows for a full audit trail.

## **F. Budget**

A detailed project budget should be provided in an Excel spreadsheet attached to this grant application. The space provided here is to allow for a narrative description to further explain the proposed budget. (Please type in blank space below. Please note there is no space limitations).

1. Explain how the grant funds, if awarded, will be spent to support the goals and objectives of the project. If equipment grant funds are requested, explain how the equipment will be utilized and maintained beyond the life of the grant.

2. Are the costs for each proposed activity reasonable for the geographic area where they are to be performed? Identify any costs that are higher than usual and explain any special circumstances within the project that makes these increased costs necessary to achieve the goals and objectives of the project.
3. Is the total project cost appropriate for the size, scope, and anticipated benefit of the project?
4. Using bullets please list each object category amount that you are requesting and the detail of how that would support meeting the grant objectives.
  - **Salaries and Wages:** Heavy Equip Apprentice, Additional Swamper (personnel time), Heavy Fire Equipment Operator. \$110,000.00.
  - **Contractual:** Equipment maintenance, CEQA Services, Technosylva Fire Danger Support, Fuels Reduction, (Dead, diseased, dying, and non-native and invasive tree removal, Vegetation management projects to reduce roadside ignitions, Fuel Breaks created and/or maintained, Prescribed fire projects, Personnel Time for project implementation, Road Grading and brushing, Cleveland NF). \$580,000.00.
  - **See page 3 for detailed supplies and equipment:**
  - **Supplies:** Portable RAWs, Crew PPE/Equipment, Cutting Edges and Hardware, PPE, Chain saws, Fire packs, Hand tools, Grader tires, Drones. \$250,000.00.
  - **Equipment:** AWD Grader, Tracker Chipper, Skid steer Tracks, Skid Steer under carriage, Tractor maintenance, Masticator maintenance, Dozer maintenance, Dozer technology and Equipment, Dozer Extension, Maintenance truck. \$250,000.00.
  - **Other:** Outreach materials such as flyers, handouts, tri-folds, contract with Technosylva Wildfire Analyst to help support the OCFA Fire Danger Operating Plan, supplies such as easy up awnings, tables, etc for outreach and education. \$35,000.00.
  - **Indirect Cost:** 0% None requested.

1. Maintenance of Equipment: The funds will be spent to purchase the specialized equipment detailed in the attached budget spreadsheet. OCFA will also budget annually for the maintenance and upkeep of the equipment, which will be done in-house by OCFA mechanics and OCFA HFEOS, as well as at the local Caterpillar center for specialized work. OCFA will maintain the equipment in perpetuity.

2. Costs: The costs are commensurate with each item. Most bids that have been received are Sourcewell bids. This means that the bids are the lowest possible for the equipment based on the manufacturer.

3. Cost benefit: This purchase of this equipment will ultimately benefit over 3.1 million residents and the budget has been proportioned to be the most efficient project. The benefit to the communities will be the successful completion of fire prevention, fuel reduction, and maintenance projects by the OCFA Crews and Equipment program and contractors throughout the county.

4. Categories: Equipment- The grant would potentially purchase 1 or a few of the following items, if the item is over the \$250,000 allowable equipment purchase then OCFA will cover the remaining cost:

• AWD Grader	410,000
• Portable RAWS	22,000
• Tracker Chipper	100,000
• Crew PPE/Equipment	20,000
• Skid steer Tracks	7,000
• Skid Steer under carriage	15,000
• Cutting Edges and Hardware	20,000
• Grader tires	12,000
• Tractor maintenance	15,000
• Masticator maintenance	5,000
• Dozer Extension	30,000
• Dozer maintenance	9,000
• Dozer technology and Equipment	10,000
• Drones	5,000
• Maintenance truck	210,000

## **G. California Climate Investments**

The space provided here is to allow for a narrative description to further explain how the project/activity will reduce Greenhouse Gas emissions. (Please type in blank space below. Please note there is no space limitations).

1. How will the project/activity reduce Greenhouse Gas emissions?

1. Greenhouse Gas reductions: By empowering the OCFA Crews and Equipment program to complete fuels reduction, maintenance, and road grading and brushing projects, OCFA will be able to respond more efficiently to vegetation fires, thus reducing the size and environmental impact of a wildfire, as well as reducing the Greenhouse Gas emissions emitted by the wildfire. Brushing vegetation back along roadways also helps to create a modified fuel break along all roads, which allows safe access to wildfires and helps to slow and/or stop wildfire spread. Responding more effectively to wildfires will reduce Greenhouse Gas emissions by allowing units to arrive sooner to a

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more exact location of a wildfire and being able to suppress the wildfire more efficiently, reducing the overall net loss in vegetation, which increases carbon sequestration through photosynthesis and reduces the number of volatile chemicals and gasses emitted into the atmosphere.

Tracking #: 21-CSR-ORC-4004

## Project Budget

Project Name: OCFA Vegetation Management

Project Name: GSN Vegetation Management											
Budget Category	Item Description	Cost Basis			Cost Share (%)			Funding Source (\$)			Total (\$)
		Quantity	Units	Cost/Unit	Grant	Grantee	Partner	Grant	Grantee	Partner(s)	
A. Salaries and Wages											
	Heavy Equipment Apprentice	500	Hours	\$ 90	100%	0%	0%	\$ 45,000.00	\$ -	\$ -	\$ 45,000.00
	Additional Swamper (Personnel T	500	Hours	\$ 40	100%	0%	0%	\$ 20,000.00	\$ -	\$ -	\$ 20,000.00
	Heavy Fire Equipment Operator	500	Hours	\$ 90	100%	0%	0%	\$ 45,000.00	\$ -	\$ -	\$ 45,000.00
		0	Hours	\$ -	100%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0.00	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0.00	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0.00	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0.00	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
	Sub-Total Salaries and Wages:							\$ 110,000.00	\$ -	\$ -	\$ 110,000.00
B. Employee Benefits											
		0	Hours	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Days	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Days	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Hours	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
	Sub-Total Employee Benefits:							\$ -	\$ -	\$ -	\$ -
C. Contractual											
	Equipment Maintenance	1	Contract	\$ 75,000	100%	0%	0%	\$ 75,000.00	\$ -	\$ -	\$ 75,000.00
	CEQA Services	1	Contract	\$ 175,000	100%	0%	0%	\$ 175,000.00	\$ -	\$ -	\$ 175,000.00
	Technosylva Fire Danger Support	1	Contract	\$ 30,000	100%	0%	0%	\$ 30,000.00	\$ -	\$ -	\$ 30,000.00
	Fuels Reduction	3	Contract	\$ 100,000	100%	0%	0%	\$ 300,000.00	\$ -	\$ -	\$ 300,000.00
		0	Miles	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
	Sub-Total Contractual:							\$ 580,000.00	\$ -	\$ -	\$ 580,000.00
D. Travel & Per Diem:											
			Hours		100%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Days	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Days	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Days	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
	Sub-Total Travel & Per Diem:							\$ -	\$ -	\$ -	\$ -
E. Supplies											
	Supplies and tools	50	Each	\$ 5,000	100%	0%	0%	\$ 250,000.00	\$ -	\$ -	\$ 250,000.00
		0	Each	\$ -	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
	Sub-Total Supplies:							\$ 250,000.00	\$ -	\$ -	\$ 250,000.00
F. Equipment											
	Equipment Purchase	1	Each	250000	100%	0%	0%	\$ 250,000.00	\$ -	\$ -	\$ 250,000.00
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
	Sub-Total Equipment:							\$ 250,000.00	\$ -	\$ -	\$ 250,000.00
G. Other Costs											
	Outreach and education materials	8	Each	\$ 4,375	100%	0%	0%	\$ 35,000.00	\$ -	\$ -	\$ 35,000.00
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
		0	Each	0	0%	0%	0%	\$ -	\$ -	\$ -	\$ -
	Sub-Total Other Costs							\$ 35,000.00	\$ -	\$ -	\$ 35,000.00
Total Direct Costs								\$ 1,225,000.00	\$ -	\$ -	\$ 1,225,000.00
Indirect Costs (Exclude Equipment)							0% \$ -			\$ -	
Total Project Costs								\$ 1,225,000.00	\$ -	\$ -	\$ 1,225,000.00
Less Program Income								\$ -			\$ -
Total Grant Proposed Costs								\$ 1,225,000.00	\$ -	\$ -	\$ 1,225,000.00

# Wildfire Resiliency 21-CSR-ORC-4004 Project Map



## Legend

- CAL FIRE SRA Threat Zone
- Orange County Boundary
- Trails and Access Roads
- Fuel Modification Zones and Defensible Space

## Openspaces

- City Parks
- Conservancy
- USFS
- OC Parks
- Private Parks
- State Parks

0 2.5 5 10 15 20 Miles





## Orange County Fire Authority **AGENDA STAFF REPORT**

**Board of Directors Meeting  
June 23, 2022**

**Agenda Item No. 2C  
Consent Calendar**

### **FY 2021/22 Year End Budget Adjustment**

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#### **Contact(s) for Further Information**

Robert Cortez, Assistant Chief Business Services Department	<a href="mailto:robertcortez@ocfa.org">robertcortez@ocfa.org</a>	714.573.6012
Tricia Jakubiak, Treasurer	<a href="mailto:triciajakubiak@ocfa.org">triciajakubiak@ocfa.org</a>	714.573.6301
Stuart Lam, Budget Manager	<a href="mailto:stuartlam@ocfa.org">stuartlam@ocfa.org</a>	714.573.6302

#### **Summary**

This item is submitted to request approval to adjust revenues and expenditures to reflect changes identified after the FY 2021/22 Mid-Year Budget Adjustment was approved in March 2022.

#### **Prior Board/Committee Action**

A comprehensive mid-year financial review was presented to the Budget and Finance Committee and the Board of Directors in January 2022, highlighting proposed mid-year changes to the FY 2021/22 budget that were needed based on events that have occurred since the budget was adopted. The Board directed staff to return in March with the technical budget adjustments required to implement the proposed changes.

At its regular March 9, 2022, meeting, the Budget and Finance Committee reviewed and unanimously recommended approval of this item. At its regular March 24, 2022, meeting, the Board of Directors also reviewed and approved this item.

Subsequent to the Board's approval of the mid-year budget adjustments, there were additional adjustments to both revenues and expenditures that require Board approval prior to year-end.

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettemer absent).

#### **RECOMMENDED ACTION(S)**

Approve and authorize FY 2021/22 budget adjustments as detailed in this report.

#### **Impact to Cities/County**

N/A

#### **Fiscal Impact**

Increased Cost Funded by Structural Fire Fund: \$5,326,280

Increased Cost Funded by Cash Contract Cities: \$0

Financial impact is detailed in the report, with an overall adjustment in revenues (all funds combined) of \$5,716,614 and an overall adjustment in expenditures (all funds combined) of \$11,042,894.

## Background

### ***Proposed FY 2021/22 Year End Budget Adjustment***

Since the mid-year budget adjustment was approved by the Board in March 2022, additional changes to the budget have become necessary. Overall, the proposed changes in the General Fund result in a revenue adjustment of approximately \$3.5 million and an expenditure adjustment of \$11.0 million. **Approximately \$3.9 million of the General Fund expenditure adjustments are related to emergency incidents that are offset by corresponding revenue or are items that are cost neutral.** Expenditures not offset by revenue adjustments are primarily due to higher than anticipated overtime expenditures driven by higher workers' compensation related backfill/overtime.

### ***FY 2021/22 General Fund Revenue Adjustments - \$3.5 million***

<b>Assistance by Hire (ABH)/Emergency Incident:</b> ABH is the term used when OCFA responds to requests for assistance to incidents outside our area of responsibility, on a reimbursement basis. This adjustment includes an additional \$3.9 million not included in the mid-year adjustments, primarily due to anticipated reimbursement for expenditures related to the Coastal Fire. An expenditure adjustment is also proposed to the overtime/backfill category to cover the costs associated with providing the ABH services.	<b>\$3,905,524</b>
<b>Intergovernmental:</b> OCFA received a Spring 2022 augmentation funding allocation from Cal Fire in the amount of \$585K for engine staffing, firefighter surge, and fire prevention, protection and suppression activities within the State Responsibility Area.	<b>\$584,714</b>
<b>Charges for Services:</b> Charges for services revenue is being reduced by \$1.1 million due to reduced ambulance supplies reimbursement revenue as a new contract is under negotiation (\$1.02 million) and reduced reimbursable crews and equipment service activity this fiscal year (\$60K).	<b>(\$1,080,100)</b>
<b>Miscellaneous:</b> This category of revenue adjustments includes sale of surplus, miscellaneous revenues, and interest earnings.	<b>\$132,612</b>

Note: Some adjustments represent future anticipated reimbursement revenue

### ***FY 2021/22 General Fund Expenditure Adjustments - \$11.0 million***

<b>Assistance by Hire/Emergency Incident Costs:</b> As mentioned under Revenue for ABH, an adjustment is needed for in-county and out-of-county responses, primarily in the overtime/backfill category, but also for response-related supplies. This category also includes COVID-19 related expenditures.	<b>\$4,415,524<sup>(1)</sup></b>
<b>Backfill/Overtime:</b> This adjustment is for backfill/overtime expenditures that have trended higher primarily due to higher workers compensation costs driven by COVID-19 related claims. Backfill/overtime for the categories of sick leave, vacation leave, and training has also trended higher this fiscal year.	<b>\$6,500,000</b>

<sup>1</sup> Expenditure increase is wholly or partially cost neutral, offset by a corresponding revenue source or dedicated fund balance.

<b>Fixed Asset Purchases:</b> On July 22, 2021, the Board of Directors accepted the 2021 US&R Grant and authorized a revenue and expenditure budget increase of \$1,269,878. OCFA plans to use a portion of these US&R Grant funds to purchase a Motorola APX 8500 Radio (\$8,200) for OCFA US&R Vehicle Unit #4016.	<b>\$0</b>
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**FY 2021/22 CIP and Other Fund Adjustments - \$2.1M**

- **Fund 123 – Fire Stations and Facilities:** An increase in revenue in the amount of \$200,000 is needed to reflect the receipt of developer contributions.
- **Fund 190 – Workers’ Compensation:** An increase in revenue in the amount of \$1,630,203 is needed to reflect the receipt of insurance settlement revenue.
- **Interest Earnings:** Interest earning revenues for each of the CIP and Other Funds have been increased by a combined amount of \$343,661 allocated as follows:
  - \$49,943 Fund 123 Fire Stations and Facilities
  - \$14,782 Fund 124 Communications and Information Systems
  - \$36,293 Fund 133 Fire Apparatus
  - \$89,772 Fund 139 115 Trust
  - \$6,718 Fund 171 Structural Fire Fund Entitlement Fund
  - \$146,153 Fund 190 Workers’ Compensation



## Orange County Fire Authority **AGENDA STAFF REPORT**

Board of Directors Meeting  
June 23, 2022

Agenda Item No. 2D  
Consent Calendar

### Updated Cost Reimbursement Rates

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#### Contact(s) for Further Information

Robert C. Cortez, Assistant Chief      [robertcortez@ocfa.org](mailto:robertcortez@ocfa.org)      714.573.6012  
Business Services Department

Julie Nemes, Finance Manager/Auditor      [julienemes@ocfa.org](mailto:julienemes@ocfa.org)      714.573.6304

#### Summary

This item is submitted to request approval of the proposed update to the Cost Reimbursement rates.

#### Prior Board/Committee Action

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 5-0 (Directors O'Neill, Hernandez, Bourne and Tettemer absent).

#### RECOMMENDED ACTION(S)

Approve and adopt the proposed Cost Reimbursement Rate schedules to be effective July 1, 2022.

#### Impact to Cities/County

Not Applicable

#### Fiscal Impact

The fiscal impact of the new rates will be based on the number of incidents that occur throughout the year and will be incorporated into the mid-year budget update.

#### Background

The California Fire and Rescue Mutual Aid System Operating Plan outlines the methodologies and formulas participating agencies (including OCFA) are required to use when developing cost reimbursement rates. These rates will be used when OCFA resources are ordered by various Federal (Cleveland National Forest Service) and State (Cal Fire) agencies. The California Office of Emergency Services (Cal OES) requires a different method to calculate reimbursement rates for non-suppression personnel only. Both methods are designed to only reimburse OCFA for the marginal cost of providing the resources and are calculated in three separate components, the indirect (overhead) cost rate, personnel rate, and equipment rate.

#### *Reimbursement Rate Calculation (Other than Cal OES)*

FY 2022/23 proposed Indirect Cost Rate is 15.98%, increasing 1.36% from the current rate of 14.62%. This change is attributable to an increase in operating costs. According to Title 2 Code of Federal Regulations part 200 issued by the Federal Office of Management and Budget, special projects or unexpected events are allowable costs for developing the indirect cost rate. The average proposed suppression personnel cost reimbursement rates increased slightly by 2% due to pay increases from labor contracts. The specialty pays (i.e., crane operator, paramedic, hazmat

specialist, hazardous duty, technical rescue truck, and US&R pay) are blended with base salary in the average hourly rates for suppression positions. In addition, a number of logistics non-suppression positions were adjusted following a class and compensation study. The full list of proposed reimbursement rates by position, including the indirect cost rate, is listed on Attachment 1A.

OCFA adopts the Cal OES California Fire Assistance Agreement (CFAA) and Federal Emergency Management Agency (FEMA) approved equipment rates, except for the helicopter rates, to seek reimbursement for equipment use on the fire incidents. The Bell 412 helicopter rate increased 19.53% from last year due to an increase in parts and maintenance costs (Attachment 2).

### ***Cal OES Reimbursement Rates***

The Cal OES requires separate calculations for regular and overtime reimbursement rates for non-suppression staff. The Cal OES personnel reimbursement rates are listed as Attachment 1B to this staff report.

### ***Civilian Position Rates***

The civilian position reimbursement rates are used for task force members responding to national and regional disasters on search and rescue missions. The reimbursement rate for affiliate member is based on the top step shift rate for OCFA's Battalion Chief position. All other civilian positions' rates are obtained from a salary survey within the California task forces and remain unchanged. Civilian position rates are included in the Cal OES reimbursement schedule (Attachment 1B).

### ***Mutually Beneficial Hourly Rates (Hand crew and Dozer Operator)***

These rates, with a methodology originally approved in 2010, are updated annually and used to recover only base salary costs of the hand crew and dozer operators when projects are deemed by OCFA to be beneficial to both the requesting entity and OCFA.

### ***Summary***

Upon approval of the proposed rates included as Attachment 1A, 1B and 2, OCFA's Finance/Cost Recovery Section will use the approved rates for the following activities or programs:

- Assistance by Hire (ABH) rates for services provided in response to CAL FIRE, Cal OES, Cleveland National Forest Service (CNF) Fire/Incident response, and other agency requests.
- Fire/Incident Restitution
- Special Event Stand-By
- Other Miscellaneous Billing

### ***Attachment(s)***

1. Proposed Cost Reimbursement Rates – Personnel
  - a. Proposed Cost Reimbursement Rates – All Agencies except Cal OES
  - b. Proposed Cost Reimbursement Rates – Cal OES
2. Proposed Cost Reimbursement Rates – Equipment

**ORANGE COUNTY FIRE AUTHORITY**  
**COST REIMBURSEMENT RATES FOR ALL BILLING AGENCIES (EXCEPT CAL OES)**  
**PERSONNEL**  
**EFFECTIVE JULY 1, 2022**

CLASSIFICATION	2021/22 ADOPTED RATES	2022/23 PROPOSED RATE with ICRP	\$ CHANGE	% CHANGE
<b>SUPPRESSION PERSONNEL</b>				
FIRE DIVISION CHIEF (DC)	\$183.71	<b>\$192.10</b>	\$8.39	4.57%
FIRE BATTALION CHIEF (BC)	\$137.87	<b>\$142.80</b>	\$4.93	3.58%
FIRE CAPTAIN (FC)	\$91.32	<b>\$94.05</b>	\$2.73	2.99%
FIRE APPARATUS ENGINEER (FAE)	\$77.94	<b>\$80.02</b>	\$2.08	2.67%
FIREFIGHTER (FF)	\$65.14	<b>\$66.55</b>	\$1.41	2.17%
HAND CREW (FIREFIGHTER)	\$42.71	<b>\$38.85</b>	(\$3.86)	-9.03%
HAND CREW SUPERVISOR (FIRE CAPTAIN)	\$83.85	<b>\$86.52</b>	\$2.67	3.18%
HAND CREW SUPERVISOR (FIRE APP. ENGINEER)	\$71.63	<b>\$73.91</b>	\$2.28	3.18%
HAND CREW SUPERVISOR (FIREFIGHTER)	\$63.86	<b>\$65.89</b>	\$2.03	3.18%
HEAVY FIRE EQUIPMENT OPERATOR	\$112.61	<b>\$121.13</b>	\$8.52	7.57%
FIRE PILOT	\$100.50	<b>\$98.41</b>	(\$2.10)	-2.09%
<b>NON-SUPPRESSION PERSONNEL</b>				
ACCOUNTANT	\$82.23	<b>\$81.83</b>	(\$0.39)	-0.48%
ACCOUNTING MANAGER	\$87.92	<b>\$94.97</b>	\$7.04	8.01%
ADMINISTRATIVE ASSISTANT	\$58.89	<b>\$60.79</b>	\$1.89	3.21%
ASST. FIRE MARSHAL	\$115.33	<b>\$115.97</b>	\$0.65	0.56%
ASST. PURCHASING AGENT	\$90.51	<b>\$92.32</b>	\$1.81	2.01%
BUYER	\$61.26	<b>\$72.53</b>	\$11.27	18.39%
COMMUNICATIONS TECHNICIAN	\$69.03	<b>\$70.41</b>	\$1.38	2.01%
COMMUNICATIONS SERVICE SUPERVISOR	\$101.14	<b>\$106.01</b>	\$4.87	4.82%
DEPUTY FIRE MARSHAL	\$90.59	<b>\$94.02</b>	\$3.43	3.78%
EMERGENCY COMM CENTER MANAGER	\$89.11	<b>\$94.97</b>	\$5.86	6.57%
ENVR HEALTH & SAFETY OFFICER	\$71.05	<b>\$76.45</b>	\$5.41	7.61%
EQUIPMENT TECHNICIAN II	\$75.14	<b>\$78.11</b>	\$2.96	3.94%
FINANCE DIVISION MANAGER	\$96.88	<b>\$104.26</b>	\$7.37	7.61%
FIRE COMM RELAT/ED SPECIALIST	\$62.93	<b>\$64.32</b>	\$1.39	2.21%
FIRE COMM RELAT/ED SUPERVISOR	\$63.61	<b>\$87.81</b>	\$24.20	38.04%
FIRE COMMUNICATIONS DISPATCHER	\$65.76	<b>\$68.09</b>	\$2.33	3.54%
FIRE COMMUNICATIONS SUPERVISOR	\$80.02	<b>\$82.88</b>	\$2.86	3.57%
FIRE HELICOPTER TECHNICIAN	\$86.24	<b>\$97.27</b>	\$11.04	12.80%
FIRE PREVENTION ANALYST	\$103.61	<b>\$105.69</b>	\$2.08	2.01%
FIRE PREVENTION SERVICES SPECIALIST	\$34.44	<b>\$34.76</b>	\$0.32	0.92%
FIRE PREVENTION SPECIALIST	\$73.71	<b>\$77.02</b>	\$3.31	4.50%
FIRE PREVENTION TRAINEE	\$58.00	<b>\$58.82</b>	\$0.82	1.42%
FIRE SAFETY ENGINEER	\$121.59	<b>\$124.02</b>	\$2.44	2.01%
FLEET SERVICES COORDINATOR	\$85.68	<b>\$82.88</b>	(\$2.79)	-3.26%
FLEET SERVICE MANAGER	\$82.32	<b>\$88.59</b>	\$6.27	7.62%
FLEET SERVICES SUPERVISOR	\$91.79	<b>\$101.13</b>	\$9.35	10.18%

## Notes:

- (1) The average rate includes specialty pays (Airport Rescue, Crane Operator, Hazardous duty, HazMat, HazMat Paramedic, Paramedic, Technical Rescue Truck, US&R, and US&R Paramedic pays)
- (2) 7% EMT specialty pay is included in Hand Crew FF average rate
- (3) Adjustment to management positions to reflect overtime as straight time rather than 1.5 x hourly rate.

**ORANGE COUNTY FIRE AUTHORITY**  
**COST REIMBURSEMENT RATES FOR ALL BILLING AGENCIES (EXCEPT CAL OES)**  
**PERSONNEL**  
**EFFECTIVE JULY 1, 2022**

CLASSIFICATION	2021/22 ADOPTED RATES	2022/23 PROPOSED RATE with ICRP	\$ CHANGE	% CHANGE
GENERAL LABORER	\$37.19	<b>\$38.65</b>	\$1.47	3.94%
GIS ANALYST	\$102.66	<b>\$108.09</b>	\$5.43	5.29%
GIS SUPERVISOR	\$132.07	<b>\$134.72</b>	\$2.65	2.01%
GIS TECHNICIAN	\$68.61	<b>\$75.48</b>	\$6.87	10.02%
HEAVY EQUIPMENT TECHNICIAN I	\$57.28	<b>\$69.38</b>	\$12.10	21.12%
HEAVY EQUIPMENT TECHNICIAN II	\$76.69	<b>\$80.60</b>	\$3.91	5.09%
INFORMATION TECHNOLOGY ANALYST	\$103.50	<b>\$109.46</b>	\$5.95	5.75%
INFORMATION TECHNOLOGY MANAGER	\$98.13	<b>\$100.10</b>	\$1.97	2.01%
INFORMATION TECHNOLOGY SPECIALIST	\$90.02	<b>\$93.59</b>	\$3.57	3.97%
INFORMATION TECHNOLOGY SUPERVISOR	\$132.07	<b>\$134.72</b>	\$2.65	2.01%
INFORMATION TECHNOLOGY TECHNICIAN	\$83.70	<b>\$86.42</b>	\$2.71	3.24%
MEDICAL DIRECTOR	\$106.13	<b>\$108.26</b>	\$2.13	2.01%
PURCHASING DIVISION MANAGER	\$67.17	<b>\$72.28</b>	\$5.12	7.62%
RESERVE FIREFIGHTER	\$2.15	<b>\$2.18</b>	\$0.03	1.21%
RISK MANAGEMENT ANALYST	\$70.47	<b>\$75.84</b>	\$5.37	7.62%
RISK MANAGEMENT SPECIALIST	\$62.82	<b>\$65.84</b>	\$3.02	4.81%
RISK MANAGER	\$86.48	<b>\$93.07</b>	\$6.59	7.62%
SERVICE CENTER LEAD	\$70.97	<b>\$74.40</b>	\$3.43	4.83%
SERVICE CENTER SUPERVISOR	\$97.30	<b>\$101.13</b>	\$3.84	3.94%
SERVICE CENTER TECHNICIAN I	\$46.45	<b>\$50.48</b>	\$4.03	8.69%
SERVICE CENTER TECHNICIAN II	n/a	<b>\$66.93</b>	n/a	n/a
SR. ACCOUNTANT	\$73.93	<b>\$79.94</b>	\$6.00	8.12%
SR. ACCT. SUPPORT SPEC.	\$63.59	<b>\$64.44</b>	\$0.84	1.33%
SR. COMMUNICATIONS TECHNICIAN	\$78.68	<b>\$77.13</b>	(\$1.55)	-1.97%
SR. FIRE COMMUNICATIONS SUPV.	\$76.92	<b>\$78.46</b>	\$1.54	2.01%
SR. FIRE HELICOPTER TECHNICIAN	\$110.47	<b>\$114.83</b>	\$4.36	3.94%
SR. FIRE PREVENTION SPECIALIST	\$93.17	<b>\$97.38</b>	\$4.21	4.52%
SR. INFO TECHNOLOGY ANALYST	\$118.34	<b>\$123.24</b>	\$4.90	4.14%
SR. SERVICE CENTER TECHNICIAN	\$62.47	<b>\$69.04</b>	\$6.58	10.53%
US&R WAREHOUSE & LOGISTICS SPECIALIST	\$60.11	<b>\$66.65</b>	\$6.54	10.89%
WILDLAND RESOURCE PLANNER	\$100.69	<b>\$111.42</b>	\$10.73	10.65%
<b>MUTUALLY BENEFICIAL RATES:</b>				
HAND CREW (FIREFIGHTER)	\$22.05	<b>\$19.44</b>	(\$2.61)	-11.84%
HAND CREW SUPERVISOR (STAFF FIRE CAPTAIN)	\$43.29	<b>\$43.29</b>	\$0.00	0.00%
HAND CREW SUPERVISOR (STAFF FIRE APP. ENG)	\$36.98	<b>\$36.98</b>	\$0.00	0.00%
HAND CREW SUPERVISOR (STAFF FIREFIGHTER)	\$32.97	<b>\$32.97</b>	\$0.00	0.00%
HEAVY FIRE EQUIPMENT OPERATOR	\$58.14	<b>\$60.61</b>	\$2.47	4.25%
SWAMPER/HAND CREW FF	\$22.05	<b>\$19.44</b>	(\$2.61)	-11.84%

## Notes:

- (1) The average rate includes specialty pays (Airport Rescue, Crane Operator, Hazardous duty, HazMat, HazMat Paramedic, Paramedic, Technical Rescue Truck, US&R, and US&R Paramedic pays)
- (2) 7% EMT specialty pay is included in Hand Crew FF average rate
- (3) In addition to other labor cost adjustments, these positions also reflect overtime as straight time rather than 1.5 x hourly rate.

**ORANGE COUNTY FIRE AUTHORITY**  
**COST REIMBURSEMENT RATES FOR CAL OES BILLINGS ONLY**  
**PERSONNEL**  
**EFFECTIVE JULY 1, 2022**

CLASSIFICATION	2021/22 ADOPTED RATE					2022/23 PROPOSED RATE	\$ CHANGE	% CHANGE
<b>SUPPRESSION POSITIONS</b>								
FIRE DIVISION CHIEF	\$183.71					<b>\$192.10</b>	\$8.39	4.57%
FIRE BATTALION CHIEF	\$137.87					<b>\$142.80</b>	\$4.93	3.58%
FIRE CAPTAIN	\$91.32					<b>\$94.05</b>	\$2.73	2.99%
FIRE APPARATUS ENGINEER	\$77.94					<b>\$80.02</b>	\$2.08	2.67%
FIREFIGHTER	\$65.14					<b>\$66.55</b>	\$1.41	2.17%
HAND CREW (FIREFIGHTER)	\$42.71					<b>\$38.85</b>	(\$3.86)	-9.03%
HAND CREW SUPERVISOR (FIRE CAPTAIN)	\$83.85					<b>\$86.52</b>	\$2.67	3.18%
HAND CREW SUPERVISOR (FIRE APP. ENGINEER)	\$71.63					<b>\$73.91</b>	\$2.28	3.18%
HAND CREW SUPERVISOR (FIREFIGHTER)	\$63.86					<b>\$65.89</b>	\$2.03	3.18%
HEAVY FIRE EQUIPMENT OPERATOR	\$112.61					<b>\$121.13</b>	\$8.52	7.57%
FIRE PILOT	\$100.50					<b>\$98.41</b>	(\$2.10)	-2.09%
<b>NON-SUPPRESSION POSITIONS</b>								
CLASSIFICATION	2021/22 ADOPTED REGULAR RATE	2022/23 PROPOSED REGULAR RATE	\$ CHANGE	% CHANGE	2021/22 ADOPTED OT RATE	2022/23 PROPOSED OT RATE	\$ CHANGE	% CHANGE
ACCOUNTANT	\$82.81	\$82.01	(\$0.80)	-0.96%	\$82.23	<b>\$81.83</b>	(\$0.40)	-0.48%
ACCOUNTING MANAGER	\$138.61	\$149.34	\$10.73	7.74%	\$87.92	<b>\$94.97</b>	\$7.05	8.02%
ADMINISTRATIVE ASSISTANT	\$61.68	\$63.10	\$1.42	2.29%	\$58.89	<b>\$60.79</b>	\$1.90	3.22%
ASST. FIRE MARSHAL	\$112.77	\$112.72	(\$0.05)	-0.05%	\$115.33	<b>\$115.97</b>	\$0.64	0.56%
ASST. PURCHASING AGENT	\$90.30	\$91.45	\$1.15	1.27%	\$90.51	<b>\$92.32</b>	\$1.81	2.00%
BUYER	\$63.82	\$73.65	\$9.83	15.40%	\$61.26	<b>\$72.53</b>	\$11.27	18.39%
COMMUNICATIONS TECHNICIAN	\$70.85	\$71.75	\$0.90	1.27%	\$69.03	<b>\$70.41</b>	\$1.38	2.00%
COMMUNICATIONS SERVICES SUPERVISOR	\$99.92	\$103.76	\$3.84	3.85%	\$101.14	<b>\$106.01</b>	\$4.87	4.81%
DEPUTY FIRE MARSHAL	\$142.25	\$148.05	\$5.80	4.08%	\$90.59	<b>\$94.02</b>	\$3.43	3.78%
EMERGENCY COMM CENTER MANAGER	\$140.22	\$149.34	\$9.12	6.51%	\$89.11	<b>\$94.97</b>	\$5.86	6.57%
ENVR HEALTH & SAFETY OFFICER	\$115.50	\$124.08	\$8.58	7.43%	\$71.05	<b>\$76.45</b>	\$5.40	7.60%
EQUIPMENT TECHNICIAN II	\$77.31	\$79.79	\$2.48	3.21%	\$75.14	<b>\$78.11</b>	\$2.97	3.95%
FINANCE DIVISION MANAGER	\$150.87	\$162.02	\$11.15	7.39%	\$96.88	<b>\$104.26</b>	\$7.38	7.61%
FIRE COMM RELAT/ED SPECIALIST	\$65.32	\$66.27	\$0.95	1.46%	\$62.93	<b>\$64.32</b>	\$1.39	2.22%
FIRE COMM RELAT/ED SUPERVISOR	\$65.95	\$87.39	\$21.44	32.52%	\$63.61	<b>\$87.81</b>	\$24.20	38.04%
FIRE COMMUNICATIONS DISPATCHER	\$67.90	\$69.66	\$1.76	2.59%	\$65.76	<b>\$68.09</b>	\$2.33	3.54%
FIRE COMMUNICATIONS SUPERVISOR	\$80.81	\$82.96	\$2.15	2.66%	\$80.02	<b>\$82.88</b>	\$2.86	3.58%
FIRE HELICOPTER TECHNICIAN	\$87.37	\$97.06	\$9.69	11.09%	\$86.24	<b>\$97.27</b>	\$11.03	12.80%
FIRE PREVENTION ANALYST	\$102.17	\$103.48	\$1.31	1.28%	\$103.61	<b>\$105.69</b>	\$2.08	2.01%
FIRE PREVENTION SERVICES SPECIALIST	\$39.54	\$39.68	\$0.14	0.36%	\$34.44	<b>\$34.76</b>	\$0.32	0.92%
FIRE PREVENTION SPECIALIST	\$75.09	\$77.69	\$2.60	3.46%	\$73.71	<b>\$77.02</b>	\$3.31	4.49%
FIRE PREVENTION TRAINEE	\$60.52	\$60.94	\$0.41	0.68%	\$58.00	<b>\$58.82</b>	\$0.82	1.42%
FIRE SAFETY ENGINEER	\$118.44	\$119.96	\$1.51	1.28%	\$121.59	<b>\$124.02</b>	\$2.43	2.00%
FLEET SERVICES COORDINATOR	\$85.93	\$82.96	(\$2.97)	-3.46%	\$85.68	<b>\$82.88</b>	(\$2.80)	-3.26%
FLEET SERVICE MANAGER	\$130.93	\$140.65	\$9.72	7.43%	\$82.32	<b>\$88.59</b>	\$6.27	7.61%
FLEET SERVICES SUPERVISOR	\$92.40	\$100.53	\$8.12	8.79%	\$91.79	<b>\$101.13</b>	\$9.34	10.18%

## Notes:

- (1) The average rate includes specialty pays (Airport Rescue, Crane Operator, Hazardous duty, HazMat, HazMat Paramedic, Paramedic, Technical Rescue Truck, US&R, and US&R Paramedic pays)
- (2) 7% EMT specialty pay is included in Hand Crew FF average rate
- (3) In addition to other labor cost adjustments, these positions also reflect overtime as straight time rather than 1.5 x hourly rate.

**ORANGE COUNTY FIRE AUTHORITY**  
**COST REIMBURSEMENT RATES FOR CAL OES BILLINGS ONLY**  
**PERSONNEL**  
**EFFECTIVE JULY 1, 2022**

CLASSIFICATION	2021/22  ADOPTED RATE					2022/23  PROPOSED RATE	\$  CHANGE	%  CHANGE
GENERAL LABORER	\$42.90	\$44.27	\$1.38	3.21%	\$37.19	\$38.65	\$1.46	3.94%
GIS ANALYST	\$101.30	\$105.63	\$4.33	4.28%	\$102.66	\$108.09	\$5.43	5.29%
GIS SUPERVISOR	\$127.93	\$129.58	\$1.64	1.28%	\$132.07	\$134.72	\$2.65	2.00%
GIS TECHNICIAN	\$70.12	\$75.90	\$5.78	8.25%	\$68.61	\$75.48	\$6.87	10.01%
HEAVY EQUIPMENT TECHNICIAN I	\$61.13	\$71.93	\$10.80	17.67%	\$57.28	\$69.38	\$12.10	21.12%
HEAVY EQUIPMENT TECHNICIAN II	\$78.72	\$82.04	\$3.32	4.22%	\$76.69	\$80.60	\$3.91	5.10%
INFORMATION TECHNOLOGY ANALYST	\$102.07	\$106.85	\$4.78	4.69%	\$103.50	\$109.46	\$5.96	5.75%
INFORMATION TECHNOLOGY MANAGER	\$152.57	\$156.35	\$3.78	2.48%	\$98.13	\$100.10	\$1.97	2.01%
INFORMATION TECHNOLOGY SPECIALIST	\$89.50	\$92.18	\$2.68	2.99%	\$90.02	\$93.59	\$3.57	3.96%
INFORMATION TECHNOLOGY SUPERVISOR	\$127.93	\$129.58	\$1.65	1.29%	\$132.07	\$134.72	\$2.65	2.00%
INFORMATION TECHNOLOGY TECHNICIAN	\$83.78	\$85.73	\$1.95	2.33%	\$83.70	\$86.42	\$2.72	3.25%
MEDICAL DIRECTOR	\$163.54	\$167.50	\$3.96	2.42%	\$106.13	\$108.26	\$2.13	2.01%
PURCHASING DIVISION MANAGER	\$110.19	\$118.39	\$8.20	7.45%	\$67.17	\$72.28	\$5.11	7.61%
RESERVE FIREFIGHTER	\$1.59	\$1.58	(\$0.01)	-0.62%	\$2.15	\$2.18	\$0.03	1.40%
RISK MANAGEMENT ANALYST	\$114.71	\$123.25	\$8.54	7.44%	\$70.47	\$75.84	\$5.37	7.62%
RISK MANAGEMENT SPECIALIST	\$65.23	\$67.64	\$2.41	3.69%	\$62.82	\$65.84	\$3.02	4.81%
RISK MANAGER	\$136.63	\$146.76	\$10.13	7.41%	\$86.48	\$93.07	\$6.59	7.62%
SERVICE CENTER LEAD	\$72.62	\$75.34	\$2.72	3.74%	\$70.97	\$74.40	\$3.43	4.83%
SERVICE CENTER SUPERVISOR	\$97.40	\$100.53	\$3.13	3.21%	\$97.30	\$101.13	\$3.83	3.94%
SERVICE CENTER TECHNICIAN I	\$51.30	\$54.93	\$3.63	7.07%	\$46.45	\$50.48	\$4.03	8.68%
SERVICE CENTER TECHNICIAN II	n/a	\$69.73	n/a	n/a	n/a	\$66.93	n/a	n/a
SR. ACCOUNTANT	\$119.46	\$128.84	\$9.38	7.85%	\$73.93	\$79.94	\$6.01	8.12%
SR. ACCT. SUPPORT SPEC.	\$65.93	\$66.37	\$0.44	0.67%	\$63.59	\$64.44	\$0.85	1.33%
SR. COMMUNICATIONS TECHNICIAN	\$79.59	\$77.79	(\$1.80)	-2.26%	\$78.68	\$77.13	(\$1.55)	-1.97%
SR. FIRE COMMUNICATIONS SUPV.	\$78.00	\$79.00	\$1.00	1.28%	\$76.92	\$78.46	\$1.54	2.01%
SR. FIRE HELICOPTER TECHNICIAN	\$109.35	\$112.86	\$3.51	3.21%	\$110.47	\$114.83	\$4.36	3.95%
SR. FIRE PREVENTION SPECIALIST	\$92.71	\$95.99	\$3.28	3.54%	\$93.17	\$97.38	\$4.21	4.52%
SR. INFO TECHNOLOGY ANALYST	\$115.50	\$119.26	\$3.76	3.25%	\$118.34	\$123.24	\$4.90	4.14%
SR. SERVICE CENTER TECHNICIAN	\$65.83	\$71.64	\$5.81	8.83%	\$62.47	\$69.04	\$6.57	10.52%
US&R WAREHOUSE & LOGISTICS SPECIALIST	\$63.68	\$69.49	\$5.81	9.12%	\$60.11	\$66.65	\$6.54	10.89%
WILDLAND RESOURCE PLANNER	\$99.53	\$108.63	\$9.10	9.14%	\$100.69	\$111.42	\$10.73	10.66%
<b>CIVILIAN POSITIONS</b>								
AFFILIATED MEMBER	\$60.52					\$60.52	\$0.00	0.00%
CANINE SPECIALIST	\$37.50					\$37.50	\$0.00	0.00%
DOCTOR	\$90.38					\$90.38	\$0.00	0.00%
HEAVY RIGGING SPECIALIST	\$40.00					\$40.00	\$0.00	0.00%
STRUCTURE SPECIALIST	\$70.95					\$70.95	\$0.00	0.00%

## Notes:

- (1) The average rate includes specialty pays (Airport Rescue, Crane Operator, Hazardous duty, HazMat, HazMat Paramedic, Paramedic, Technical Rescue Truck, US&R, and US&R Paramedic pays)
- (2) 7% EMT specialty pay is included in Hand Crew FF average rate
- (3) In addition to other labor cost adjustments, these positions also reflect overtime as straight time rather than 1.5 x hourly rate.

**ORANGE COUNTY FIRE AUTHORITY**  
**COST REIMBURSEMENT RATES**  
**EQUIPMENT**  
**EFFECTIVE July 1, 2022**

DESCRIPTION	2022/23 RATE	2021/22 RATE	\$ CHANGE	% CHANGE	SOURCE	Hourly / Daily
TYPE 1 ENGINE	\$140.00	\$140.00	\$0.00	0.00%	Cal OES	Hourly
TYPE 2 ENGINE	\$132.00	\$132.00	\$0.00	0.00%	Cal OES	Hourly
TYPE 3 ENGINE	\$126.50	\$126.50	\$0.00	0.00%	Cal OES	Hourly
TRUCK/QUINT	\$121.00	\$121.00	\$0.00	0.00%	FEMA	Hourly
AIR/LIGHT UTILITY	\$60.54	\$58.41	\$2.13	3.65%	FEMA	Hourly
AIRPORT CRASH UNIT	\$82.24	\$81.10	\$1.14	1.41%	FEMA	Hourly
CHIPPER	\$32.26	\$24.89	\$7.37	29.61%	FEMA	Hourly
CREW CARRYING VEHICLE	\$21.90	\$21.60	\$0.30	1.39%	FEMA	Hourly
DOZER	\$152.20	\$153.35	(\$1.15)	-0.75%	FEMA	Hourly
DOZER MODULE (DOZER+TRANSPORT)	\$228.19	\$224.82	\$3.37	1.50%	FEMA	Hourly
DOZER TENDER	\$19.87	\$22.64	(\$2.77)	-12.23%	FEMA	Hourly
DOZER TRAILER	\$18.74	\$18.49	\$0.25	1.35%	FEMA	Hourly
DOZER TRANSPORT	\$75.99	\$71.47	\$4.52	6.32%	FEMA	Hourly
DUMP TRUCK	\$65.75	\$72.05	(\$6.30)	-8.74%	FEMA	Hourly
EXCAVATOR	\$20.46	\$18.97	N/A	N/A	FEMA	Hourly
FIRE COMMAND UNIT	\$86.10	\$86.10	\$0.00	0.00%	FEMA	Hourly
FUEL TENDER	\$32.01	\$32.01	\$0.00	0.00%	FEMA	Hourly
GRADER	\$65.12	\$63.63	\$1.49	2.34%	FEMA	Hourly
HAZMAT UNIT	\$82.24	\$81.10	\$1.14	1.41%	FEMA	Hourly
HAZMAT SUPPORT	\$31.43	\$31.43	\$0.00	0.00%	FEMA	Hourly
LOADER/SKID-STEER	\$36.76	\$38.72	(\$1.96)	-5.06%	FEMA	Hourly
MEDIC UNIT	\$224.00	\$230.00	(\$6.00)	-2.61%	Cal OES	Daily
MULE	\$14.05	\$13.86	\$0.19	1.37%	FEMA	Hourly
PATROL/SQUAD UNIT	\$120.00	\$120.00	\$0.00	0.00%	Cal OES	Hourly
PICKUP (less than 3/4 ton)	\$135.00	\$135.00	\$0.00	0.00%	Cal OES	Daily
PROWLER	\$15.00	\$14.79	\$0.21	1.42%	FEMA	Hourly
REFRIGERATED TRAILER	\$515.00	\$515.00	\$0.00	0.00%	CAL FIRE	Daily
SEDAN	\$119.00	\$119.00	\$0.00	0.00%	Cal OES	Daily
SPORT UTILITY VEHICLE	\$194.00	\$194.00	\$0.00	0.00%	Cal OES	Daily
VAN	\$191.00	\$191.00	\$0.00	0.00%	Cal OES	Daily
WATER TENDER	\$102.67	\$102.67	\$0.00	0.00%	Cal OES	Hourly
OTHER (3/4 ton and above)	\$224.00	\$224.00	\$0.00	0.00%	Cal OES	Daily
HELICOPTER - BELL 412 (1)	\$5,318.56	\$4,449.43	\$869.13	19.53%	OCFA	Hourly

Notes:

(1) Helicopter rates are based on 20 years useful life without the pilot and crew chief (Captain). The new rate reflects average usage for the past four years.



**Orange County Fire Authority**  
**AGENDA STAFF REPORT**

**Board of Directors Meeting**  
**June 23, 2022**

**Agenda Item No. 2E**  
**Consent Calendar**

**Award of RFP# SK2489b Design-Build Services for OCFA Mission Viejo  
Fire Station #24 and Approval of Corresponding Budget Adjustments**

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**Contact(s) for Further Information**

Jim Ruane, Assistant Chief  
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Logistics Department

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714.573.6421

**Summary**

This agenda item is submitted for approval to award a Design-Build Services Agreement for design-build services to replace Fire Station #24 in the City of Mission Viejo to EC Constructors, Inc. (ECC) in the amount of \$14,996,489, the top ranked firm as a result of a two-step solicitation process, RFSQ SK2489a and RFP SK2489b, and approval to increase the CIP Budget by \$3,000,000 resulting in a total Fire Station #24 project budget of \$16,000,000.

**Prior Board/Committee Action**

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettermer absent).

**RECOMMENDED ACTIONS:**

1. Direct staff to increase the FY 2021/22 Fire Stations and Facilities CIP in the amount of \$3,000,000 for one-time additional funding for Fire Station #24 to add station capacity for both an Engine and Truck company.
2. Approve and authorize the Purchasing Manager to execute the proposed Design-Build Services Agreement for OCFA Mission Viejo Station #24 with EC Constructors, Inc. in an amount not to exceed \$14,996,489.

**Impact to Cities/County**

Not Applicable.

**Fiscal Impact**

Funding of \$13,000,000 million is currently budgeted in the FY2021/22 CIP Budget for this station replacement project. This action results in a one-time appropriation and increase of \$3,000,000 in the Fire Stations and Facilities CIP, resulting in a total Station #24 Replacement project budget of \$16,000,000.

Increased Cost Funded by Structural Fire Fund: \$3,000,000

Increased Cost Funded by Cash Contract Cities: \$0

**Background**

This project contemplates planning, design, demolition, and replacement of Fire Station 24, constructed in 1970. The project includes replacement construction of an approximate 10,000

square foot station on the current .98 acre site, and includes placement of a temporary fire station for continued 24/7/365 operations during construction. The station will house two companies, alleviate station overcrowding conditions, and improve the operational readiness of the station.

### ***Solicitation Process***

In accordance with the provisions of the California Public Contract Code Sections 22160 – 22169, OCFA is authorized to utilize the design-build method of public project delivery to pre-qualify, select, and award an agreement to a Design-Build Entity (DBE) for the design and construction of public projects. On February 16, 2021 staff issued Request for Statements of Qualifications (RFSQ) SK2489a through which AMG & Associates, EC Constructors, Inc., and Erickson-Hall emerged as the three top-qualified firms. On November 1, 2021 staff issued Request for Proposals (RFP) SK2489b to the three pre-qualified firms with AMG & Associates and EC Constructors submitting proposals. As a result of the evaluation panel rankings, EC Constructors emerged as the overall top-ranked firm.

#### **Pre-Qualification Rankings:**

<b>Firm</b>	<b>Rank</b>
<b>AMG &amp; Associates</b>	<b>1</b>
<b>EC Constructors, Inc.</b>	<b>2</b>
<b>Erickson-Hall</b>	<b>3</b>
Barnhart-Reese Construction, Inc.	4
Robert Clapper Construction Services Inc.	4

#### **Final Proposal Rankings:**

<b>Firm</b>	<b>Price</b>	<b>Rank</b>
<b>EC Constructors, Inc.</b>	<b>\$14,996,489</b>	<b>1</b>
AMG & Associates	\$14,784,520	2

Please see *Attachment 1 – Executive Summary* for detailed information regarding the solicitation and evaluation processes.

### ***Recommendation***

During the proposal evaluation process and subsequent vendor interview, the EC Constructors design-build team demonstrated that they possessed the necessary experience, qualifications and familiarity with site-specific conditions to successfully complete the Fire Station 24 replacement project.

The primary reason for the recommendation to increase the Station #24 replacement project budget from \$13,000,000 to \$16,000,000 is to add capacity for a truck company. Currently, the truck company serving the community operates out of nearby Station #9 along with an engine company, with the station originally designed to house a single company. The expanded apparatus bay and support facilities for Station #24 will provide sufficient capacity for the truck company, while alleviating the overcrowding condition at Station #9.

As such, staff recommends approving the recommended actions as stated in this report to award the Design-Build Services Agreement to EC Constructors in the amount of \$14,996,489.

### ***Attachment***

1. Executive Summary
2. Proposed Design-Build Services Agreement with ECC  
*(Agreement posted online and hard copy available in the Clerk's Office upon request)*



## Executive Summary: Design-Build Request for Proposals

### RFP SK2489b: Design-Build Services for OCFA Mission Viejo Fire Station #24

In accordance with the provisions of the California Public Contract Code Sections 22160 – 22169, OCFA is authorized to utilize the design-build method of public project delivery to pre-qualify, select, and award an agreement to a Design-Build Entity (DBE) for the design and construction of public projects.

Section 1. Project Information			
<b>RFP Issue Date</b>	11/1/2021	<b>RFP Due Date</b>	1/13/2022
<b>Vendors Notified</b>	RFSQ: 989 RFP: 3	<b>Proposals Received</b>	RFSQ: 5 RFP: 2
<b>RFP Job Walk</b>	11/8/2021 and 11/9/2021	<b>RFP Job Walk Attendees</b>	3
<b>RFP Addenda Issued</b>	5	<b>Project Estimate</b>	\$13,500,000
<b>Project Description:</b>	Provide a temporary fire station and design, demolish, and reconstruct existing OCFA Mission Viejo Fire Station 24.		
<b>Solicitation Method:</b>	Due to the value and nature of the project, staff utilized the design-build delivery method and a two-step pre-qualification solicitation process.		
Section 2. Pre-Qualification of RFP Respondents			
References were requested for two Comparable Projects as defined in the RFSQ. If the Comparable Projects were not completed as a joint venture between the currently proposed Design-Build Contractor/Engineer Team, two references were required for each member of the team, respectively.			
<b>EC Constructors with Jeff Katz Architecture</b>			<input checked="" type="checkbox"/> <b>Qualified</b> <input type="checkbox"/> <b>Not Qualified</b>
<b>Contractor Reputation:</b> <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
<b>Notes:</b>	No findings.		
<b>Contractor Capability to Perform Work:</b> <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
<b>Prior &amp; Current Contracts:</b>	<u>Prior:</u> City of Chula Vista - Fire Station 5 & 9 County of San Diego – Pine Valley Fire Station City of Garden Grove – Fire Station 6 City of Chula Vista - Fire Station 10 <u>Current:</u> Loma Verde Rec Center Segments 1&2, Chula Vista Anaheim Fire Station #12		
<b>Disposition of References:</b>			<input checked="" type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable
<b>References for Comparable Projects:</b>	Completed as joint venture between current proposed team: - Chula Vista Fire Station 5 & 9 - Design-Build Pine Valley Fire Station	<b>No. References that Responded:</b>	2

<b>Notes:</b>	Per the references, EC Constructors with Jeff Katz Architecture was responsive, met expectations of good communication and cost estimates, a good partner relative to problem solving, no claims, fire station experienced, and communicated well.		
<b>AMG &amp; Associates with LPA</b>			<input checked="" type="checkbox"/> <b>Qualified</b> <input type="checkbox"/> <b>Not Qualified</b>
<b>Contractor Reputation:</b> <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
<b>Notes:</b>	No findings.		
<b>Contractor Capability to Perform Work:</b> <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
<b>Prior &amp; Current* Contracts:</b>	<b>Prior:</b> - Buena Park Station #61 - Stacey Middle School Gymnasium - San Bernardino Sheriff's Forensic Crime Lab <b>Current:</b> - LAUSD Mendez High School, Manual Arts High School, Drew Middle School, YES Academy, Fremont High School - R&B Schultz - Measure T Elementary - Vernola Park - La Puente High School - Crandall Gym SLO - El Segundo USD - Allan Hancock		
	*As of RFSQ Process		
<b>Disposition of References:</b>			<input checked="" type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable
<b>References for Comparable Projects:</b>	- AMG: Seal Beach OCFA Fire Station #48 - AMG: Santa Clarita Battalion HQ Fire Station #150 - LPA: Buena Park OCFA Fire Station #61 - LPA: Irvine OCFA Fire Station #20	<b>No. References that Responded:</b>	4
<b>Notes:</b>	Per references, the individuals working for both AMG and LPA respectively were excellent partners. Both firms received favorable scores.		
<b>Section 3. Proposal Pricing – Top Ranked Proposal</b>			
<b>EC Constructors:</b>	\$14,996,489		
<b>Top-Ranked Proposal Price Comparison to Engineer's Estimate:</b>	11.09% Higher		
<b>Top-Ranked Proposal Pricing Determination:</b>	<input checked="" type="checkbox"/> Reasonable <input type="checkbox"/> Not Reasonable		
<b>Section 4. Recommendation for Award</b>			
<b>Award Documentation:</b>			
<b>Payment Bond:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Performance Bond:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Award Certifications:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Insurance Certificates:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## Discussion:

### Phase One - Request for Statements of Qualifications (RFSQ) SK2489a

#### Solicitation Process:

On February 16, 2021, staff issued RFSQ SK2489a for design-build services for the replacement of OCFA Mission Viejo Fire Station #24. A non-mandatory pre-submittal meeting was held on February 3, 2021 and representatives from fifteen firms attended. Final Statements of Qualifications (SOQs) were due March 17, 2021 and five submittals were received. Staff conducted an initial responsiveness review of submittals which included a review of Essential Requirements (Pass/Fail) and a Surety Declaration (Pass/Fail).

An evaluation team consisting of OCFA Logistics Division staff and a representative from the City of Mission Viejo evaluated the SOQs based on the criteria and point structure as defined in the RFSQ: DBE History (15 pts), Questionnaire (45 pts), Comparable Projects (20 pts), and References for Comparable Projects (20 pts). The Questionnaire included questions regarding the DBE's claim history, safety record and penalties and assessments. The Comparable Projects included specific criteria in order for a prior project to be considered: 1) Construction of a fire station in California, 2) Constructed in accordance with the Essential Services Buildings Seismic Safety Act of 1986 (CA Health and Safety Code Sections 16000 – 16023), and 3) Completed within the last ten years. Upon completion of the evaluation of the SOQs, AMG & Associates, EC Constructors, Inc., and Erickson-Hall emerged as the three top-ranked DBEs that would be invited to participate in Phase Two of the solicitation process.

#### Pre-Qualification Rankings:

	AMG/LPA				EC Constructors				Erickson-Hall			
Evaluators	1	2	3	4	1	2	3	4	1	2	3	4
A. DBE History (15)	13.00	12.00	13.50	12.00	13.00	10.50	13.50	13.50	15.00	15.00	13.50	13.50
B. Questionnaire (45)	43.00	40.50	40.50	36.00	42.00	27.00	40.50	40.50	44.00	40.50	45.00	33.75
C. Comparable Projects (20)	18.00	20.00	20.00	16.00	18.00	12.00	18.00	18.00	20.00	18.00	20.00	18.00
D. References (20)	19.17	19.17	19.17	19.17	19.81	19.81	19.81	19.81	9.81	9.81	9.81	9.81
Sum of Written Proposal Scores	93.17	91.67	93.17	83.17	92.81	69.31	91.81	91.81	88.81	83.31	88.31	75.06
Initial Ranking	1	1	1	2	2	4	2	1	4	2	3	3
Sum of Initial Rankings	5.00				9.00				12.00			
Overall Rank:	1				2				3			
	Barnhart-Reese				RC/STK							
Evaluators	1	2	3	4	1	2	3	4				
A. DBE History (15)	12.00	13.50	12.00	9.00	13.00	9.00	12.00	12.00				
B. Questionnaire (45)	41.00	31.50	40.50	31.50	42.00	22.50	40.50	22.50				
C. Comparable Projects (20)	17.00	12.00	18.00	12.00	17.00	10.00	16.00	12.00				
D. References (20)	14.26	14.26	14.26	14.26	17.04	17.04	17.04	17.04				
Sum of Written Proposal Scores	84.26	71.26	84.76	66.76	89.04	58.54	85.54	63.54				
Initial Ranking	5	3	5	4	3	5	4	5				
Sum of Initial Rankings	17.00				17.00							
Overall Rank:	4				4							

### Phase Two - Request for Proposals (RFP) SK2489b

#### Solicitation Process:

On November 1, 2021, staff issued RFP SK2489b to AMG & Associates, EC Constructors, Inc. and Erickson-Hall, the top three pre-qualified firms from SK2489a, to select the DBE to provide design-build services for Station #24. A mandatory pre-proposal site visit was held on November 8, 2021 providing the firms the opportunity to inspect both the location of permanent Station 24 and the location where temporary Station 24 was anticipated to be constructed. An additional

follow-up teleconference was held on November 9, 2021 so firms could discuss the project with stakeholders from the City of Mission Viejo. All three firms attended both meetings.

Final proposals were due on January 13, 2022 and AMG & Associates and EC Constructors submitted offers. The third pre-qualified firm elected to withdraw from the process citing concerns with current market conditions and the risks associated with rising construction costs and the potential for unforeseen conditions in comparison to the standard public agency budgeting process. Because of the timing of when this firm withdrew from the solicitation process, it was not feasible to include additional firms in the RFP. Staff reviewed the two proposals received to ensure compliance with the RFP requirements, including the submittal of an original Bidder's Bond, and deemed both proposals responsive.

An evaluation team consisting of OCFA Logistics staff, OCFA Operations staff, and a representative from the City of Mission Viejo evaluated the proposals based on the criteria and point structure defined in the RFP: Minimum Design Requirements (40 pts), Quality of Design (20 pts), and Method of Approach (15 pts). Staff evaluated Pricing (25 pts) by calculating scores for the total contract price and also by conducting a basic Life Cycle Cost Analysis over a 15-year period for the proposed Fire Station, as required by the CA Public Contract Code. The evaluation panel held vendor interviews to further discuss the respective proposals, including project timelines, approach to project management, site considerations, and building design. Upon completion of the evaluations EC Constructors emerged as the top-ranked firm.

#### Final Proposal Rankings:

	EC Constructors				AMG/LPA			
<b>Cost Proposal</b>	<b>\$14,996,489</b>				<b>\$14,784,520</b>			
<b>Life Cycle Cost Analysis (15 yr)</b>	<b>\$5,552,303</b>				<b>\$4,958,000</b>			
<b>Evaluators</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
A. Minimum Design Requirements (40)	32.00	24.00	36.00	36.00	16.00	32.00	24.00	20.00
B. Quality of Design (20)	14.00	14.00	18.00	18.00	8.00	18.00	8.00	12.00
C. Method of Approach (15)	10.50	12.00	13.50	13.50	9.00	13.50	9.00	10.50
D. Pricing (25)	23.72	23.72	23.72	23.72	25.00	25.00	25.00	25.00
Sum of Written Proposal Scores	80.22	73.72	91.22	91.22	58.00	88.50	66.00	67.50
Initial Ranking	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>
Sum of Initial Rankings	5.00				7.00			
<b>Initial Overall Rank</b>	<b>1</b>				<b>2</b>			
E. Presentation (25)	25.00	22.50	22.50	22.50	7.50	15.00	15.00	15.00
F. Q&A (25)	25.00	22.50	25.00	22.50	7.50	15.00	7.50	17.50
Sum of Interview Ratings	50.00	45.00	47.50	45.00	15.00	30.00	22.50	32.50
Total Written & Simulation Ratings	130.22	118.72	138.72	136.22	73.00	118.50	88.50	100.00
Final Ranking	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
Sum of Final Rankings	<b>4.00</b>				<b>8.00</b>			
<b>Final Overall Rank:</b>	<b>1</b>				<b>2</b>			

#### Recommendation for Award

The EC Constructors design-build team demonstrated that they possess the necessary experience, qualifications and familiarity with site-specific conditions to successfully complete the Fire Station 24 replacement project and is recommended for award of the Design-Build Services Agreement.

SK2489b: Design-Build Services for OCFA Mission Viejo Fire Station #24	EC Constructors with Jeff Katz Architecture			AMG & Associates with LPA		
	Total Price	Difference from Lowest Bid	Difference from Engineer's Estimate	Total Price	Difference from Lowest Bid	Difference from Engineer's Estimate
	\$14,996,489	\$0	\$1,496,489	\$14,784,520	-\$211,969	\$1,284,520
Line Item Subtotal	Line Item Subtotal			Line Item Subtotal	Difference from Lowest Bid	
Category I: Preconstruction Phase	\$1,150,375			\$870,350	-\$280,025	
Category II: Construction Phase	\$12,905,290			\$13,011,829	\$106,539	
Category III: Overhead & Profit	\$940,824			\$902,341	-\$38,483	
Category IV: Additional - Extended Daily Rate	\$1,500			\$1,925	\$425	
Life Cycle Cost: 15 Year Period	\$5,552,303			\$4,958,000	-\$594,303	
Notes:	Pricing 11.09% higher than estimate. Pricing deemed reasonable.			Pricing 9.51% higher than estimate. Pricing deemed reasonable.		

**4F: CONTRACT AGREEMENT****Orange County Fire Authority  
Design - Build Contract  
For  
Mission Viejo Fire Stations 24**

This Design-Build Construction Contract ("Agreement") is entered into on the 23<sup>rd</sup> day of June, 2022 by the Orange County Fire Authority ("Authority"), a joint powers authority organized under the laws of the state of California, and EC Constructors Inc., a licensed California General Contractor hereinafter referred to as "Contractor". Authority and Contractor are sometimes collectively referred to in this Agreement as the "Parties" and individually referred to as a "Party."

**RECITALS**

The following recitals are a substantive part of this Contract:

- A. The Authority is a governmental entity providing fire and life safety services within Orange County, California.
- B. The Authority desires to construct using the design-build project delivery method, a Temporary Fire Station 24 and new/reconstructed Fire Station No. 24, Mission Viejo, located at 25862 Marguerite Parkway ("Project"). The Authority desires to have the Project constructed and developed in an integrated, functional, attractive, and energy efficient way so that the operational goals of the Authority can be achieved while ensuring that the Project will be an environmental, cultural, social, and governmental benefit to the neighboring communities.
- C. The Authority desires the combined design, engineering and construction services of an experienced professional, highly qualified design-build entity, expert in both full service architectural design and construction to act as the Authority's Design-Build Contractor in the development and construction of the Project. Contractor shall be responsible to complete all aspects of design, engineering and construction services and processes required to deliver a complete fire station as described in the plans and specifications approved by OCFA, attached here to as Section 5.
- D. Contractor represents that it has thoroughly investigated and considered the work to be performed; that it has carefully considered how the services should be performed; and that it fully understands the facilities, difficulties, and restrictions attending performance of the work required under this Agreement and the Contract Documents. Contractor warrants that it is able to expertly manage every aspect of design, engineering and construction, including management of its work forces, suppliers, and all subcontractors necessary to ensure the construction, development, and completion of the Project on time and within budget. Contractor further represents that it possesses a commitment to excellence and complete familiarity with all appropriate building methods and materials that will enable the Contractor to complete its obligations under this Agreement.
- E. The Contractor is ready, willing, and able to ensure that all work specified in the Contract Documents will be performed, installed, constructed, and completed in a professional and expert manner and that all such work will be completed on time and within budget.
- F. Contractor represents that it is regularly and appropriately licensed as a general Contractor and as an architect/engineer in the State of California and is qualified and expert in all respects to provide the required and desired work as generally described in these Recitals and more specifically described in the Contract Documents, and that its officers and employees,

suppliers, and subcontractors are sufficient in number and possess the knowledge, experience, and character necessary to qualify them individually as expert for the particular duties they are to perform.

Authority and Contractor agree to the following:

**1. Scope of Work.**

Contractor shall complete all functions and requirements required to design and construct the Project and will furnish all design, engineering, and construction including all supervision, labor, materials, equipment, tools, utility services, transportation and incidentals, including permits, fees and all costs needed to perform and complete all work required in connection with the construction and occupancy of the Project in strict accordance with the Contract Documents and each of its component parts as enumerated herein below.

**2. Contract Price.**

Authority shall pay to Contractor as full consideration for the faithful performance of the Agreement, the sum of Fourteen Million Nine Hundred Ninety-six Thousand, Four Hundred Eighty-nine Dollars (\$14,996,489). This sum is the total amount stipulated as a guaranteed maximum price, design-build cost in the Request for Proposal # SK2489b dated November 1, 2021, and the Contractor's responding Proposal. Payment shall be made as set forth in the General Conditions.

**3. Time of Commencement and Completion.**

Contractor will commence the work under this Agreement within ten days of the date of the Notice to Proceed and complete the work within seven hundred-thirty (730) consecutive calendar days from the date of the Notice to Proceed. As used in this Agreement, "complete" shall mean when all portions of the work have been completed or installed in accordance with the Plans and Specifications with a Certificate of Occupancy received by OCFA and a Notice of Completion recorded by the OCFA. The work may be deemed complete even if minor items require minor correction, if agreed to by OCFA.

**4. Contract Documents.**

For the purposes of this Agreement the "Contract Documents" shall include the items listed below. The Contract Documents are hereby incorporated into this Agreement and made a part thereof by this reference.

- (1) SK2489b - OCFA Notice of Request for Proposals
- (2) SK2489b – Instructions to Offerors
- (3) SK2489b – Proposal Documents
- (4) SK2489b – Contract Documents
- (5) SK2489b – Technical Specifications
- (6) Special Conditions: Mission Viejo Fires Station 24 Approval Process and Guidelines
- (7) Drawings and Specifications, for Fire Stations 24 (produced by Contractor and approved by OCFA)
- (8) Contractor's Construction Schedule (produced by Contractor and approved by OCFA)
- (9) Supplemental Agreements amending or extending the Work contemplated and which may be required to complete the Work in a substantial and acceptable manner.

All of the above component documents of the Contract Documents are complementary and any work required by one of the above documents shall be done as if required by all.

**5. Debarment and Suspension Certification.**

The Contractor's signature affixed hereto, shall constitute a certification under penalty of perjury under the laws of the State of California, that the Contractor has complied with Title 49, Code of Federal Regulations, Part 29, Debarment and Suspension Certificate, which certifies that he/she or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past ten (10) years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past ten (10) years. Any exceptions to this certification must be disclosed to and approved by the Authority.

**6. Reserved.**

***[Signatures on Next Page]***

IN WITNESS WHEREOF, Authority and Contractor have executed this Agreement as of the date first set forth above.

**"CONTRACTOR"**

EC Constructors, Inc.

(Name of Firm)

Contractor's State License No.: 585677

Expiration Date: 2/29/24

By: 

Title: Sherri L. Summers, CEO

Date: 6/7/22

If Contractor is a corporation, a Corporate Resolution and/or Corporate Seal is required.

**"AUTHORITY"**

**ORANGE COUNTY FIRE AUTHORITY**

**ATTEST:**

By: \_\_\_\_\_

Michele Steggell, Chair  
OCFA Board of Directors

\_\_\_\_\_  
Maria D. Huizar  
Clerk of the Authority

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**APPROVED AS TO FORM:**



David Kendig  
OCFA General Counsel

Date: 6/15/2022



## ORANGE COUNTY FIRE AUTHORITY

### REQUEST FOR PROPOSALS Design-Build Services for OCFA Mission Viejo Fire Station 24

**DATE: November 1, 2021**

**RFP Number: SK2489b**

The Orange County Fire Authority (OCFA) is requesting proposals from the three highest ranking pre-qualified Design-Build Entities (DBE) to provide a temporary fire station, demolish the existing fire station, and to design and construct a replacement fire station to serve the city of Mission Viejo and surrounding areas. It is anticipated that all construction will be completed by 2023.

In accordance with the provisions of the California Public Contract Code Sections 22160 – 22169, OCFA is authorized to utilize the design-build method of public project delivery to pre-qualify, select, and award an agreement to a DBE for the design and construction of public projects. This solicitation is the second step in a two-step Design-Build process. Proposals shall be accepted from:

**AMG/LPA  
EC Constructors  
Erickson-Hall**

Proposals submitted by the three pre-qualified DBEs from the first step will be scored and ranked by a panel of OCFA subject matter experts and other project stakeholders. This project is a public work and is subject to compliance monitoring and enforcement by the DIR.

Only paper proposals will be accepted for this solicitation. There will be no public opening of proposals.

Paper proposals may be mailed or hand delivered to Orange County Fire Authority, Purchasing Department, 1 Fire Authority Road, Building C, Irvine, CA 92602 and received no later than the date and time specified. One (1) original hard copy and one (1) electronic copy in PDF or Word (on Digital Media), of the proposal shall be sent to the attention of the Purchasing Section, within said time limit, in a sealed envelope. The envelope should include the Offeror's Business Name, Proposal Item Number, and the Due Date.

Proposals will be received no later than **11:00 A.M.** Pacific Standard Time (PST) on **Thursday, December 16, 2021.**

#### **LATE SUBMITTALS WILL NOT BE ACCEPTED.**

A mandatory site inspection and pre-proposal conference is scheduled on **Monday, November 8, 2021 at 10:30 A.M.** Any questions concerning this Request for Proposals (RFP) can be submitted online via the Q&A module available through PlanetBids before **Monday, November 22, 2021 at 11:00 A.M.** OCFA will publish a response to all inquiries through the e-procurement system and/or may issue an addendum as a result.

**[Rothchild Ong]** | [Assistant Purchasing Agent]  
[rothchildong@ocfa.org] | [(714) 573-6642]

**[Sara Kennedy]** | [Purchasing Manager]  
[sarakennedy@ocfa.org] | [(714) 573-6641]

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## SECTION 1: NOTICE OF REQUEST FOR PROPOSALS

### **1A: ORANGE COUNTY FIRE AUTHORITY NOTICE OF REQUEST FOR PROPOSALS FOR DESIGN-BUILD SERVICES FOR OCFA MISSION VIEJO FIRE STATION #24**

=====

**ORANGE COUNTY FIRE AUTHORITY REQUEST FOR PROPOSALS: DESIGN-BUILD SERVICES** (SK2489b): Provide a temporary fire station and demolish and reconstruct a fire station in the city of Mission Viejo. Proposals will only be accepted from the three pre-qualified firms resulting from SK2489a. For official RFP documents visit: <https://www.planetbids.com/portal/portal.cfm?CompanyID=14773>. Proposals from the three firms will be accepted until December 16, 2021 AT 11:00 A.M.

=====

**Published:** Orange County Register

**FIRST PUBLICATION DATE:** November 5, 2021

**SECOND PUBLICATION DATE:** November 12, 2021

**1B: SOLICITATION INFORMATION****1. ABBREVIATIONS**

**Cal/OSHA:** State of California Department of Industrial Relations, Division of Occupational Safety and Health

**CSLB:** California Contractors State License Board

**DBE Member:** Any officer, partner, member, or firm that comprises the DBE

**DBE Participants:** Any consultant or subcontractor of the DBE

**DBE:** Design-Build Entity

**DIR:** California Department of Industrial Relations

**FF&E:** Fixtures, Furnishings and Equipment

**FS24:** Fire Station 24

**OCFA:** Orange County Fire Authority

**OSHA:** United States Department of Labor, Occupational Safety and Health Administration

**PCC:** California Public Contract Code

**RFOTC:** OCFA Regional Fire Operations Training Center

**RFP:** Request for Proposals

**RFSQ:** Request for Statements of Qualifications

**RME:** Responsible Managing Employee

**RMO:** Responsible Managing Officer

**SOQ:** Statement of Qualifications

**TFS24:** Temporary Fire Station 24

**2. OBJECTIVE**

OCFA is requesting proposals from the three pre-qualified DBEs to provide a temporary fire station and to design, demolish, and reconstruct existing Fire Station 24. This station serves the community of Mission Viejo, California and surrounding areas. The intent of this design-build solicitation is to produce a completed facility of commercial quality which will operate efficiently and without unreasonable architectural, structural, mechanical and electrical failure or deficiency throughout the expected life of the facilities. The design life required for the facilities shall be at least 50 years.

The OCFA intends to achieve the optimum value for the budget available within the desired schedule. The DBE that provides the best value within the allowable budget and is prepared to collaborate with the OCFA and its staff and consultants will be selected. The OCFA defines value in terms of exceeding minimum program requirements, excellence of design, durability of materials, and optimized life-cycle energy and maintenance costs.

Construction and demolition must be phased to avoid the interruption of essential services. The current budget allocation for the entire project is \$13.5 million dollars, inclusive of all project costs. The deliverable as a result of the award of a design/construction contract resulting from this RFP will be a fully furnished and functional Fire Station with a Certificate of Project Completion recorded with the County of Orange. Selection of the DBE will be in accordance with CA PCC Sections 22160 – 22169 and will be based on the best value offered, as determined at the sole determination of OCFA.

**3. MANDATORY SITE INSPECTION AND PRE-PROPOSAL CONFERENCE**

A mandatory pre-submittal conference is scheduled on **Monday, November 8, 2021 at 10:30 A.M. at FIRE STATION 24. located at 25862 MARGUERITE PARKWAY, MISSION VIEJO, CA.** This informational meeting will be held to allow questions or clarifications concerning OCFA's RFP process, and it will also be the DBEs' opportunity to discuss the City of Mission Viejo design requirements with the city of Mission Viejo. If you will be attending this meeting, please contact Jocelyn Casillas via e-mail at: [jocelyncasillas@ocfa.org](mailto:jocelyncasillas@ocfa.org) or by telephone at: (714) 573-6640 to reserve your spot.

#### 4. CONTRACTOR MINIMUM QUALIFICATIONS

DBE must meet the following minimum qualifications in order to have its response considered:

- **Current and valid A & B Contractor's License issued by the California Contractor State License Board**
- **Current and valid California Department of Industrial Relations registration**
- **Minimum 10 years' experience providing the same or similar services**
- **Design-build fire station/public works experience and construction of prior OCFA fire stations are desired.**

#### 5. DUE DATE

Proposals will be received no later than **11:00 A.M. on Thursday, December 16, 2021**. Late proposals will not be accepted.

#### 6. PROPOSAL SUBMITTAL

The RFP Response Forms are available for download on OCFA's online bidding platform, PlanetBids. Proposals must be prepared using the response forms included in this RFP document. Proposals shall be executed by an authorized signatory. DBEs are to fill in all blank spaces (insert "N/A" where the answer is not applicable). DBEs are to initial all interlineations, annotations, deletions, alterations, erasures and other modifications on the forms. Deviations in the form may result in the proposal being deemed non-responsive. Only paper proposals will be accepted for this solicitation.

Proposals may be hand delivered or mailed to Orange County Fire Authority, Purchasing Department, 1 Fire Authority Road, Building C, Irvine, CA 92602 no later than the date and time specified in section 6 above. One (1) original hard copy (marked original) and one (1) electronic copy in PDF or Word (on electronic media) of the proposal must be submitted in sealed envelope. The envelope should include the DBE's Business Name, Solicitation Number, and the Due Date.

Any vendor who wishes his or her proposal to be considered for award is responsible for ensuring that it is complete and received by the Purchasing Office on or before the due date and time. **Facsimile, electronic or e-mail proposals will not be considered.** Proposals received after the scheduled submittal deadline will be returned unopened. Please note that there will be **no public opening of proposals**.

#### 7. INQUIRIES

Any questions related to the RFP shall be directed to the Assistant Purchasing Agent, Rothchild Ong. Questions and comments must be submitted via this RFP's Q&A module on the PlanetBids website no later than **11:00 A.M. on Monday, November 22, 2021**. The inquirer's name, company, address, phone number should be included. Verbal interpretations or clarifications on the part of OCFA will be without legal effect. Only responses submitted in writing via the Q&A module or addendum will be binding.

#### 8. SCHEDULE OF IMPORTANT DATES

Request for Proposal Issue Date	<b>November 1, 2021</b>
Mandatory Pre-Proposal Conference and Site Inspection	<b>November 8, 2021 at 10:30 A.M.</b>
Deadline to submit questions through Online Q&A	<b>November 22, 2021 at 11:00 A.M.</b>
Proposal Due Date	<b>December 16, 2021 at 11:00 A.M.</b>

The tentative schedule of important dates is for general guidance only, to provide the supplier an indication of OCFA's internal processes. Other than the Request for Proposal (RFP) Issue Date, the above dates and steps are subject to change without necessity of addendum.

## **9. PROJECT DESCRIPTION**

### **9.1 BACKGROUND**

OCFA is utilizing a two-step process to select and award a contract to a DBE to provide a temporary fire station and to design, demolish, and reconstruct existing Fire Station 24. This RFP is the second step of the process. Step one has been completed and the three (3) DBEs that have been prequalified to participate in this RFP are: AMG/LPA, EC Constructors, and Erickson-Hall.

The project includes all services necessary for the design, permitting and construction of OCFA Temporary Fire Station 24 and replacement Fire Station 24. The awarded DBE will be provided an approved site for TFS24. The Project's two sites will all be located within the City of Mission Viejo with the temporary fire station site to be determined jointly by OCFA and the City of Mission Viejo. The replacement station will be constructed on the existing site with all utilities and streets as in existing conditions. See Section 5E for existing station and site plan drawings.

Surrounding land uses near the proposed project site include residential development, commercial development, parks, and infrastructure in accordance with the City of Mission Viejo Planning and Development standards. The existing site is a currently operating fire station with existing utilities, infrastructure, and roadway with traffic controls.

The successful DBE will be afforded latitude for station design but must meet certain specifications and requirements stipulated by OCFA. Requirements include room dimensions, certain adjacencies, equipment and other performance specifications. The Project design and materials will be functional as well as compatible with the character of the surrounding community and the theme established by the City of Mission Viejo Planning and Development Departments. Additional detail will be provided by the City of Mission Viejo during the non-mandatory pre-proposal conference.

### **9.2 PROJECT BUDGET & ESTIMATES**

The estimate for the project is \$13.5 million, including all project components, and is based upon a 14,000 square foot concept. A minimum bonding capacity of \$13.5 million for each of the required payment and performance bonds is required in response to this RFP. FF&E is estimated at \$225,000 for the temporary station and at \$750,000 for the permanent station.

## **10. CONTRACTOR RESPONSIBILITIES**

### **10.1 MATERIAL AND LABOR**

In addition to a fully furnished and functional fire station with all attendant appurtenances, Contractor's proposal shall include all costs for labor, materials, supervision, general conditions, mobilization, special inspection, Orange County and community building permits, inspections, special inspections, any/all fees, including all regulatory compliance applications, fees, and permits. This shall include a site water quality management plan, acceptable to the County of Orange and the Regional Water Quality Control Board, the Santa Ana River Region, applications and permit(s) to operate. All costs and coordination for connection of utilities services shall be included. Fuel dispensing and emergency power generator shall be in compliance with South Coast Air Quality Management District and the California Air Resources Board.

Contractor shall provide all permits, fees, regulatory compliance applications, supervision, material, labor, tools, supplies, special inspections, fees, etc. to complete the project as described herein. See Section 5: Technical Specifications for detailed information on these requirements and additional components that must be included in Contractor's proposal and pricing.

### **10.2 SUBCONTRACTORS**

Regarding the hiring of subcontractors, and in accordance with CA PCC Section 22166:

*"(a)...All construction subcontractors that are identified in the SOQ, shall be afforded all the protections of Chapter 4 (commencing with Section 4100) of Part 1 [of the CA PCC]."*

*(b) Following award of the design-build contract, the design-build entity shall proceed as follows in awarding construction subcontracts with a value exceeding one-half of 1 percent of the contract price allocable to construction work:*

*(1) Provide public notice of availability of work to be subcontracted in accordance with the publication requirements applicable to the competitive bidding process of the local agency, including a fixed date and time on which qualifications statements, bids, or SOQs will be due.*

*(2) Establish reasonable qualification criteria and standards.*

*(3) Award the subcontract either on a best value basis or to the lowest responsible DBE. The process may include prequalification or short-listing. The foregoing process does not apply to construction subcontractors listed in the original SOQ. Subcontractors awarded construction subcontracts under this subdivision shall be afforded all the protections of Chapter 4 (commencing with Section 4100) of Part 1."*

All subcontractors known at the time of submittal must be listed in Section 3F. All subcontractors hired after the RFP due date must be submitted to OCFA for verification of compliance with Section 3F.

#### **10.3 CSLB LICENSE**

Contractor and all known subcontractors shall possess a valid California A, B, or specialty Contractor's license, as required by California law, at the time of bid submission, pursuant to California Public Contract Code Section 3300 and Business and Professions Code Section 7028.15. The successful contractor and all subcontractors must maintain the license throughout the duration of the project.

#### **10.4 PREVAILING WAGE AND COMPLIANCE MONITORING**

Contractor and all subcontractors shall conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hour notice, payroll records, and apprentice and trainee employment requirements, for all Services on the above Project, including, without limitation, the State labor compliance monitoring and enforcement by the Compliance Monitoring Unit of the Department of Industrial Relations. The successful contractor and all subcontractors must maintain DIR registration throughout the duration of the project.

#### **10.5 STANDARD SPECIFICATIONS**

OCFA relies on the standard specifications, CSI and Greenbook applicable in the jurisdiction where the project is located, as modified by the local jurisdiction.

#### **10.6 BUSINESS LICENSE REQUIREMENTS**

Contractor and all subcontractors shall conform to the requirements of the city in which the project is located (or the requirements of the County if the project is located within an unincorporated area) and shall maintain active business license(s) as required by the jurisdiction(s) in which the project is located. The successful contractor and all subcontractors must remain in compliance with these requirements throughout the duration of the project.

#### **10.7 WARRANTY**

In addition to any warranties specified in the drawings and any manufacturer's warranty, Contractor shall warrant the workmanship and manufacturing for a minimum of one year.

**11. OCFA RESPONSIBILITIES**

OCFA will coordinate with operations to ensure Contractor has access to necessary areas to perform work. OCFA shall be responsible for the registration of the project with the CA DIR subsequent to contract award. OCFA will provide interior FF&E for the temporary Fire Station #24.

**12. DELIVERABLES****12.1 PROJECT COMPONENTS****12.1.1 TEMPORARY FIRE STATION 24 (TFS24)**

Contractor shall provide a temporary fire station at a preapproved designated location behind the former Steinmart in the Mission Viejo Shopping Center. The City of Mission Viejo shall provide a graded flat location for OCFA use. The temporary fire station shall contain, at a minimum, a secured exterior perimeter fence, exterior lighting, modular trailers, and secured covered apparatus parking. The modular trailers shall include, at a minimum, four (4) dorm rooms, two gender neutral (2) restrooms with showers, a kitchen/dining area, living space/office area. Modular trailers may be a large double wide or separate units divided into dorm/restroom/shower with adjacent kitchen/dining, living and office space, or any other feasible combination. Final layout is subject to OCFA review and approval. Contractor shall perform any necessary site work and connect all utilities to temporary fire station including water, sewer, electricity, gas (if applicable), phone and data lines. Any necessary surveying required to locate onsite utilities will be contractor/vendor responsibility. OCFA will outfit the interior of the temporary station, including providing the FF&E. Contractor shall be responsible for obtaining all necessary approvals and permits from the City of Mission Viejo. See Section 5A for minimum specifications of the temporary fire station design. TFS24 will support up to one company of four OCFA firefighters and one paramedic engine for operation 24 hours per day.

**12.1.2 REPLACEMENT FIRE STATION 24 (FS24)**

The new FS24 will probably be a two-story structure approximately 14,000 square feet in size, with four apparatus bays, office, working and living space for twelve personnel. See Section 5 for conceptual renderings of the minimum requirements the station must meet. These drawings are preliminary and may not accurately reflect required setbacks from the street and/or property lines from the neighboring HOA, which may impact the size and design of the station.

The station will also include twelve crew dormitory rooms, six crew bathrooms, a public accessible restroom, office spaces, work spaces, storage area for specialty urban search and rescue equipment, kitchen, dayroom, dining room and gym. Other appurtenances for the station include, but are not limited to, an elevator, a covered diesel refueling site, an emergency power generator capable of carrying full load of all site/station circuits, boundary walls/fencing with powered automatic vehicle gate, all furniture, fixtures, equipment, landscape and hardscape.

The replacement Fire Station 24 will be rebuilt on the existing fire station site located at 25862 Marguerite Parkway. The new Fire Station 24 will be designed in Andalusian style with some stone and/or brickwork required on the face (see Section 5D for examples). Additional design requirements will be provided by the City of Mission Viejo during the mandatory site inspection and pre-proposal conference.

**12.2 SPECIFICATIONS****12.2.1 MINIMUM SPECIFICATIONS**

This RFP includes function, program, design, performance, schedule and cost criteria that will be the basis for all subsequent design and construction services. These documents specify certain minimum requirements for space, adjacencies, equipment, and establish criteria and procedures to ensure the OCFA's program requirements are translated into functional facilities that will fully support their intended uses. This RFP is not intended to inhibit or limit the creativity of architects, engineers or design professionals engaged by the DBE in any way. Rather, it is intended to facilitate the design and construction process by providing all members of the DBE with a clear

understanding of OCFA's requirements and expectations. The purpose of the information provided herein is to establish the minimum requirements for the supplies, materials, and equipment used for this project. It is not the intention of OCFA to exclude suppliers of similar or equal products of the types specified. Provided specifications, brands, and/or manufacturers describe OCFA expectations for the equipment, supplies and materials to be acquired.

## **12.2.2 EQUIVALENT ALTERNATE ITEMS**

### **12.2.2.1 EQUIPMENT SUBMITTALS**

As noted throughout Section 5, deviations from the specifications provided herein are not preferred but in some instances may be accepted. OCFA retains the sole right to determine whether proposed deviations to the specified items are acceptable. Any DBE offering items or equipment as equivalent alternatives to those items specified must submit documentation in accordance with the requirements outlined in Section 5 to substantiate that the item is equal no less than ten (10) business days prior to the RFP deadline. Failure to do so may result in the proposal that includes such alternative(s) being deemed non-responsive. As part of the evaluation of proposed alternate items, OCFA may request additional product information or product samples. Such information or samples must be submitted at no expense to OCFA by an agreed-upon due date for inspection and approval prior to contract award. Failure to comply with the request, or failure of the proposed alternate product to meet the required specifications, may be cause for OCFA to deem the proposal that includes such alternative(s) to be non-responsive.

### **12.2.2.2 ADDITIONAL SUBMITTALS**

Contractor shall submit for approval all items and documentation prior to beginning work in accordance with the requirements outlined in Section 5. In addition to the requirements specified in Section 5, any equivalent alternate items offered as a submittal during the course of construction must include documentation to substantiate that the item is equal. As part of the evaluation of proposed alternate items, OCFA may request additional product information or product samples. Such information or samples must be submitted at no expense to OCFA by an agreed-upon due date for inspection and approval prior to installation. Failure to comply with the request, or failure of the proposed alternate product to meet the required specifications, may be cause for OCFA to deem the Contractor to have caused a delay in the project, to be remedied by the assessment of liquidated damages, as described in the Contract Documents (see Section 4).

## **12.2.3 MATERIALS**

Materials shall be pure, unadulterated, first quality and shall be delivered to the project in original unbroken packages bearing the maker's name and brand number. Materials shall comply with all requirements described in Section 5. Materials shall be submitted for approval prior to use. Contractor must furnish additional stock of materials, as specified in Section 5.

OCFA intends to purchase and keep as inventory commonly replaced items for the purpose of expediting future repairs. Should Contractor or subcontractors utilize this inventory to perform repairs, use of these items will not void or otherwise negatively affect the warranty. Contractor or subcontractors must replace the stock at no cost to OCFA.

## **12.3 PROJECT EXECUTION**

### **12.3.1 WORKMANSHIP**

Contractor shall:

- a. Perform work under conditions best suited to produce the specified deliverables.
- b. Correct all work that does not comply with the intent of the specification and/or does not meet the approval of OCFA.

- c. Protect all adjacent areas and surfaces from damage from work performed (i.e. automobiles, sidewalks, asphalt, concrete, plants, etc.).
- d. Coordinate with the OCFA before using noisy, motorized equipment.
- e. Take all necessary steps to protect the public and all property concerned.

**12.3.2 CLEAN-UP**

Contractor shall, at completion of work each day, remove all debris and rubbish resulting from this project and leave work spaces in a clean condition subject to OCFA approval.

**12.3.3 PROTECTION**

Contractor shall protect work of other trades, correct damage by cleaning, repairing or replacing, and repainting, as approved by OCFA.

**12.3.4 REPAIR**

At completion of work, Contractor shall repair and/or restore damaged work of other trades.

**12.3.5 ACCEPTANCE DOCUMENTATION**

Upon completion of work, Contractor shall provide the documents specified herein for final review and acceptance by OCFA.

**12.3.6 HEALTH AND SAFETY**

Contractor shall ensure compliance at all times with the Health and Safety requirements in Section 86 of the Contract Agreement.

**12.4 SCHEDULES AND TIMELINES****12.4.1 COORDINATION OF WORK**

Prior to beginning work, Contractor shall prepare a schedule and submit to OCFA for approval. Contractor shall coordinate the commencement of all work with OCFA so as not to cause inconvenience to the facility. Contractor parking, along with the placement of all trailers, equipment and materials must be coordinated with OCFA in advance.

All work at the location must be coordinated with OCFA in a manner that shall accommodate the requirements of OCFA personnel. Contractor shall post notices in conspicuous places at least three to five days in advance warning occupants what date work will begin. Work, deliveries or efforts which may impede existing circulation roadways shall be scheduled at least seven (7) days in advance.

**12.4.2 HOURS OF WORK**

Work shall be performed Monday through Friday between the hours of 7:00 AM and 5:00 PM. Overtime and after-hours work is not permitted, unless otherwise coordinated with and approved by the city in which the project is located.

**12.4.3 PROJECT TIMELINE**

OCFA anticipates that

- Project work will begin 10 days after the agreement and all other required award documents are received and approved by OCFA
- Project will be complete within 730 days

**13. MEETINGS**

Meetings between OCFA and Contractor will include, at a minimum, the following:

**13.1 PRE-AWARD MEETING**

This meeting will aid OCFA in determining responsibility of Contractor and to finalize the specifications and services to be provided.

**13.2 PRE-CONSTRUCTION JOB WALKS**

These meetings with OCFA, the staff of the city in which the project is located, and others as necessary and/or required by law will be coordinated by the Contractor.

**13.3 PROJECT STATUS MEETINGS**

Weekly meetings held in person, unless otherwise determined by OCFA.

**13.4 ACCEPTANCE**

Meetings regarding project acceptance and warranty punch list items.

**13.5 ADDITIONAL**

Other meetings deemed necessary by OCFA for contract compliance.

## SECTION 2: INSTRUCTIONS TO OFFERORS

### 14. CAMPAIGN CONTRIBUTIONS DISCLOSURE

In conformance with the statutory requirements of the State of California Government Code Section 84308, part of the Political Reform Act and Title 2, California Code of Regulations 18438 through 18438.8, regarding campaign contributions to members of appointed Boards of Directors, DBE is required to complete the Party and Participant Disclosure Forms provided in Appendix F of this RFP and submit as part of the proposal, if applicable. DBE is required to submit only one copy of the completed form(s) as part of its proposal. This/these form(s) should be included in the original proposal. The DBE and subcontractors must complete the form entitled "Party Disclosure Form". Lobbyists or agents representing the DBE in this procurement must complete the form entitled "Participant Disclosure Form". Reporting of campaign contributions is a requirement from the proposed submittal date up and until the OCFA Board of Directors takes action.

### 15. AMENDMENT OF REQUEST FOR PROPOSAL

Notification via email will be sent to vendors listed as "Prospective Bidders" on PlanetBids in the event that a Q&A set or amendment to the RFP is released. The DBE shall acknowledge receipt of an amendment to this Request for Proposals on the submittal. The OCFA reserves the right to revise the RFP documents prior to the due date. Revisions, if any, shall be made by written Addenda.

**15.1** Pursuant to Public Contract Code Section 4104.5, if OCFA issues an Addendum later than seventy-two (72) hours prior to the deadline for submission of bids, and the Addendum requires material changes, additions or deletions to the description of the work to be performed or the content, form or manner of submission of bids, OCFA will extend the deadline for submission of bids by at least seventy-two (72) hours. Otherwise, OCFA may determine, at its sole discretion, whether an Addendum requires that the date set for opening bids be postponed. Announcement of a new date, if any, will be made by Addenda. All DBEs will be notified by e-mail when an addendum is posted to PlanetBids.

**All Addenda issued before the time proposals are due shall form part of the contract documents. It is the DBE's responsibility to be familiar with Addenda issued. OCFA may deem any proposal that fails to acknowledge all Addenda to be non-responsive. DBEs must acknowledge the Addenda in writing.**

### 16. INTERPRETATION OF RFP DOCUMENTS

Discrepancies in, and/or omissions from the Specifications or other RFP documents or questions as to their meaning shall be immediately brought to the attention of the Purchasing Manager by submission of a written request for interpretation or correction thereof no later than the deadline specified for questions specified in Section 1 of the Notice of Request for Proposals. The person submitting the request will be responsible for its prompt delivery.

Any interpretation of the RFP documents will be made only by addendum duly issued electronically to each DBE registered on the prospective DBE's list. The OCFA will not be responsible for any explanations or interpretations provided in any other manner. No person is authorized to make any oral interpretation of any provision in the proposal documents to any DBE, and no DBE should rely on any such oral interpretation.

### 17. EVALUATION PROCESS

A response to this Request for Proposal is an offer to contract with OCFA based upon the scope of work contained in OCFA's Request for Proposal and the terms and conditions set forth in the Contract Agreement template, attached hereto in Section 4. Award will be made to the DBE(s) submitting the most advantageous proposal(s) after consideration of all Evaluation Criteria set forth in this solicitation. The award will be made in the best interests of OCFA after all factors have been evaluated.

OCFA will determine whether the proposal complies with the instructions for submitting proposals including completeness of proposal which encompasses the inclusion of all required attachments and submissions. The OCFA will reject any proposals that are submitted late. Failure to meet the specifications, project timeline, product availability, or other requirements may result in rejection. All proposals appearing to be responsive will be reviewed by an evaluation committee comprised of OCFA staff and external subject matter experts/stakeholders as required for compliance with the scope of work. DBEs should respond to all requirements in the order in which they are presented. Proposals must fully address the evaluation factors and the firm's ability to provide services as outlined in the scope of work.

## **17.1 PHASE ONE EVALUATION CRITERIA: PAPER PROPOSAL**

### **17.1.1 Minimum Design Requirements (maximum points 40):**

This criterion assesses how well the DBE responds to and demonstrates understanding of the RFP and how well the service offered meets the required specifications and objectives in the solicitation including:

- Quality of features, furniture, fixtures and equipment
- Compliance with the Mission Viejo design plan
- OCFA Basis of Design
- Compliance with potential Fuel Modifications on adjacent HOA property

Information provided in response to Section 3K will be considered.

### **17.1.2 Quality of Design (maximum points 20):**

This criterion evaluates the overall excellence in design and engineering, innovation in energy efficiency and energy management, and any value added enhancements offered. Information provided in response to Section 3L will be considered.

### **17.1.3 Method of Approach (maximum points 15):**

This criterion evaluates the proposed level of service that will be provided throughout the term of the contract including: Proposed project scheduling, Meetings, Project Management Approach, Customer Service, and Proposed Subcontractors. Information provided in response to Section 3M and 3F will be considered.

### **17.1.4 Pricing (maximum points 25):**

This score will be based upon the information provided in response to 3J – Offer/Cost Proposal. The pricing score for each proposal will be calculated using the following formula:

**17.1.4.1 Proposed Costs (Maximum 15 Points):** This will be calculated utilizing the formula below.

$$\frac{\text{Total Cost of Lowest Responsive Offer}}{\text{This Proposer's Total Cost}} \times 15 = \text{Awarded Points}$$

**17.1.4.2 Life Cycle Cost Analysis (Maximum 10 Points):** This will be calculated utilizing the formula below.

$$\frac{\text{Life Cycle Cost of Lowest Responsive Offer}}{\text{This Proposer's Life Cycle Cost}} \times 10 = \text{Awarded Points}$$

Because this proposal is negotiable, all pricing data will remain confidential until after award is made.

**17.2 PHASE TWO EVALUATION CRITERIA: INTERVIEW, REFERENCES, FIELD DEMONSTRATION**

OCFA reserves the right to conduct interviews with some or all of the DBEs during the evaluation process. OCFA may determine that interviews are not necessary. In the event interviews are conducted, information provided during the Phase Two process shall be evaluated in accordance with the stated criteria.

**OCFA shall not reimburse the DBE for costs associated with the Phase Two evaluation process. Interviews will be held at a time and place specified by OCFA.**

The DBE's key project team members will be invited to attend. The DBE should be prepared to discuss at the interview specific experience providing services similar to those described in the RFP, project approach, estimated work effort, available resources, and other pertinent factors which distinguish your firm from others. The following criteria and points will be used for the evaluation of Phase Two:

**17.2.1 Interview Presentation (maximum 25 points)****17.2.2 Interview Questions / Discussion (maximum 25 points)**

**OCFA may determine there is no need to conduct an interview.** If held, the interview will allow for a brief presentation by the DBE and include a Question and Answer portion. The score for the interview may reflect additional information or insight gained into the DBE's Minimum Design, Quality of Design, and Method of Approach.

The score achieved from Phase Two will be combined with the scoring from Phase One for a total. It is OCFA's intent to commence negotiations with the DBE(s) deemed most advantageous. OCFA reserves the right to re-evaluate the written proposal in light of any additional information provided in the interview and sample process.

**17.3 ADDITIONAL INFORMATION ABOUT THE EVALUATION PROCESS****17.3.1 Shortlist**

OCFA reserves the right to shortlist the DBEs on all of the stated criteria. OCFA may determine that short listing is not necessary.

**17.3.2 Additional Investigations**

OCFA reserves the right to make such additional investigations as it deems necessary to establish the competence and financial stability of any DBE submitting a proposal.

**17.3.3 Prior Experience**

Previous experiences with the proposer may be taken into consideration when evaluating qualifications and experience.

**17.3.4 Overall Evaluation of the Proposal Response**

The overall completeness, accuracy and quality of the proposal may be taken into consideration when evaluating the qualifications and experience.

**17.3.5 Post-Proposal Discussions with DBEs**

OCFA reserves the right to conduct post-proposal discussions with any DBE(s).

**17.4 NEGOTIATIONS**

Because this proposal is negotiable, all pricing data will remain confidential until after award is made. OCFA may request a best and final offer from the top-ranking firms for further evaluation and consideration. Exclusive or concurrent negotiations may be conducted with responsible DBE(s) for the purpose of altering or otherwise changing the conditions, terms and price of the proposed contract unless prohibited. DBEs shall be accorded fair and equal treatment in conducting negotiations and

there shall be no disclosure of any information derived from proposals submitted by competing DBEs. Exclusive or concurrent negotiations shall not constitute a contract award nor shall it confer any property rights to the successful DBE. In the event the OCFA deems that negotiations are not progressing, OCFA may formally terminate these negotiations and may enter into subsequent concurrent or exclusive negotiations with the next most qualified firm(s). The DBE with the best ranking after negotiations will be recommended for award of the contract.

## **18. DISPUTES RELATING TO THIS REQUEST FOR PROPOSALS**

In the event a dispute arises concerning any aspect of this RFP, including specifications and/or process, the party bringing the dispute shall submit a written request for resolution to the Purchasing Department prior to the RFP's due date and time.

In the event a dispute arises regarding this RFP's Recommendation for Award or Denial of Award, the party bringing the dispute must do so in accordance with OCFA's **Purchasing Ordinance, Article IX. Legal and Contractual Remedies**, which can be found online under "Doing Business with OCFA" at <https://www.ocfa.org/Uploads/Purchasing/OCFA%20Purchasing%20Ordinance.pdf>.

## **19. WITHDRAWAL OF PROPOSAL**

### **19.1 PRIOR TO RFP DUE DATE AND TIME**

At any time prior to the specified due date specified in RFP Section 1, an DBE may formally withdraw the proposal by a written letter, facsimile or electronic mail from the DBE or an authorized representative to the OCFA Purchasing Manager, provided such letter, facsimile or electronic mail is actually and timely received by the OCFA Purchasing Manager. **Telephonic or oral withdrawals shall not be considered.**

### **19.2 AFTER RFP DUE DATE AND TIME**

In accordance with California Public Contract Code sections 5100-5110, DBE shall not be relieved of the obligations of its proposal unless by consent of OCFA, nor shall any change be made in the bid because of mistake. Proposals may be withdrawn for mistake upon mutual written agreement of DBE and OCFA, or if all of the following conditions apply:

- A mistake is made in the proposal; and
- Written notice is provided to OCFA within five (5) working days from the date of the public opening specifying in the notice in detail how the mistake occurred. Telephonic or oral withdrawals will not be considered; and
- The mistake makes the proposal materially different than DBE intended it to be; and
- The mistake was made in filling out the proposal and was not due to error in judgment or to carelessness in inspecting the site of the work, or in reading the plans or specifications.

Any DBE who claims a mistake or who forfeits its bid security (Bidder's Bond) shall be prohibited from participating in further bidding on the project on which the mistake was claimed or bid security was forfeited.

## **20. INDEMNIFICATION**

DBE agrees to protect, defend, indemnify, save and hold harmless the OCFA and its officers, officials, employees and volunteers from any and all claims, liabilities, expenses, or damages of any nature, including attorney fees, for injury to or death of any person (DBE's employees included), and for injury to any property, including consequential damages of any nature resulting there from, arising out of or in any way connected with the DBE's submittal.

## **21. RESERVATIONS (RIGHTS RESERVED TO OCFA)**

OCFA reserves the right to reject any or all proposals or any part thereof; to reissue the solicitation; to reject non-responsive or non-responsible proposals; to reject unbalanced bids; to reject proposals where the terms, prices, and/or awards are conditioned upon another event; to reject individual proposals for

failure to meet any requirement; to award by item, part or portion of an item, group of items, or total; to make multiple awards; to investigate the qualifications of any DBE under consideration; to modify or amend this RFP in writing; to waive minor irregularities, defects, omissions, technicalities or form errors in any proposal. Waiver of one irregularity does not constitute waiver of any other irregularity. OCFA may seek clarification of the proposal from the DBE at any time, and failure to respond is cause for rejection. OCFA is required to make an award that is in the best interest of the OCFA. All decisions on compliance, evaluation, terms and conditions shall be made solely at the OCFA's discretion and made to favor the OCFA. OCFA may cancel this solicitation at any time.

The OCFA may reject any proposal which, in its sole opinion, does not accurately reflect the cost to perform the work as compared to other proposals received and/or to project estimates. In addition, because the OCFA may elect to include or exclude any of the bid items and alternate bid items (if applicable) at its sole and absolute discretion, each DBE must ensure that each bid items contain a proportionate share of profit, overhead and other costs or expenses which will be incurred by the DBE. The OCFA may deem any bid which unevenly weights or allocates costs, including but not limited to overhead and profit to one or more particular bid items as non-responsive. No contract will be executed unless the DBE is licensed in accordance with the provisions of the State law.

The OCFA reserves the right to conduct discussions with DBEs for purposes including, but not limited to, eliminating minor irregularities, informalities, or apparent clerical mistakes in the proposal in order to clarify an offer and assure full understanding of, and responsiveness to, solicitation requirements.

## **22. PRE-PROPOSAL CONFERENCE**

If scheduled, the date and time of a Pre-Proposal conference is indicated Section 1 of this document. Written minutes and/or notes will not be available. Oral statements or instructions will not constitute an amendment to this Request for Proposal.

## **23. INSPECTION OF SITE**

Each DBE is responsible for becoming familiar with the conditions of the project site as well as those relating to the construction and labor of the project, to fully understand the facilities, conditions, difficulties and restrictions which may impact the completion of the project. The DBE shall be responsible for fully understanding the requirements of the subsequent Contract and otherwise satisfy themselves as to the expense and difficulties accompanying the fulfillment of contract requirements. The submission of a proposal will constitute a representation of compliance by the DBE. There will be no subsequent financial adjustment, other than that provided by the subsequent Contract, for lack of such familiarization.

## **24. CONTRACTOR AND SUBCONTRACTOR LICENSING REQUIREMENTS**

DBE and all listed Subcontractors shall possess valid California Contractor's licenses, as required herein and as appropriate for each specialty subcontracted at the time of bid submission, pursuant to California Public Contract Code Section 3300 and Business and Professions Code Section 7028.15. Licenses must be maintained throughout the duration of the contract resulting from this RFP.

Pursuant to Section 7028.15 of the Business and Professions Code, the OCFA shall consider any bid submitted by a contractor not currently licensed in accordance with California law and pursuant to the requirements found in the RFP documents to be nonresponsive, and the OCFA shall reject the proposal. The OCFA shall have the right to request evidence of all valid license(s) currently held by the DBE and each of the subcontractors listed in the proposal before awarding the contract. In such cases, DBEs shall provide evidence of valid licenses satisfactory to the OCFA within five (5) calendar days. Pursuant to Public Contract Code Section 20676, sellers of "mined material" must be on an approved list of sellers published pursuant to Public Resources Code Section 2717(b) in order to supply mined material for this contract.

**25. SB 854 DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION**

No contractor or subcontractor may be listed on an offer for a public works project unless registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5, with limited exceptions from this requirement for bid purposes only under California Labor Code Section 1771.1(a). No contractor or subcontractor may be awarded a contract for public work, or engage in the performance of any public works project unless registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5. Pursuant to SB 854, the DIR registration number of each subcontractor known at the time of submittal must be identified on the proposal; **failure to do so may result in the proposal being deemed non-responsive.**

**The contract resulting from this solicitation is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. OCFA reports all public works contracts to the DIR subsequent to contract execution.**

The OCFA will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining bid pricing, and will not under any circumstances be considered as the basis of a claim against the OCFA on the contract resulting from this solicitation.

**26. PREVAILING WAGE**

This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the applicable prevailing wage rates will be enforced. The work is subject to the payment of not less than prevailing wages under California Labor Code Section 1770 et seq. Contractor must comply with all related provision of the California Labor Code if awarded the agreement, including but not limited to:

- The provisions of California Labor Code Section 1775 relating to payment of prevailing wages, and
- Section 1777.5 relating to employment of apprentices, and
- Section 1811-1813 relating to the payment of overtime.

Failure to comply with the applicable prevailing wage, overtime, and apprenticeship requirements may result in penalties.

Contractors are hereby notified that the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification or type of worker needed to perform the work under the contract which will be awarded to the successful contractor.

Additional information is available at the Department of Industrial Relations website at:

<http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>

Contractors are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Additional information on the Compliance Monitoring Unit requirements can be found at:

<https://www.dir.ca.gov/Public-Works/PublicWorksEnforcement.html>

**27. DEBARMENT OF CONTRACTORS**

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Section 1777.1 or Section 1777.7 of the Labor Code and Federal "Excluded Parties List

System". Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to the OCFA. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project. In order to prohibit the procurement of any goods or services ultimately funded by Federal awards from debarred, suspended or otherwise excluded parties, each Contractor will be screened at the time of response to ensure the Contractor, its principal and their named subcontractors are not debarred, suspended or otherwise excluded by the United States Government in compliance with the requirements of 2 Code of Federal Regulations (CFR) 200.12 7 Code of Federal Regulations (CFR) 3016.35, 28 CFR 66.35, 29 CFR 97.35, 34 CFR 80.35, 45 CFR 92.35 and Executive Order 12549.

## **28. CONTRACT**

A response to this RFP is an offer to contract with OCFA based upon the terms, conditions, and specifications contained within this document, all Addenda, and the Contract Agreement and General Conditions, attached hereto in Section 4. Submission of a proposal confers on the DBE no right to an award or to a subsequent contract. No binding contract will exist between the DBE and the OCFA unless and until the OCFA executes a written contract or purchase order.

## **29. RFP DOCUMENTS & FORMS**

Proposals are to be prepared using the RFP forms which are included in this RFP Document. Proposals shall be executed by an authorized signatory. As a condition of bidding and in accordance with the provisions of Section 20101 of the California Public Contract Code, prospective DBEs are required to submit all the forms listed in the Proposal Documents. Failure to do so may result in the rejection of the proposal.

## **30. PREPARATION OF PROPOSAL**

All proposals shall incorporate the forms provided in this RFP document. It is permissible to copy these forms as required. Facsimiles or electronic mail proposals shall not be considered.

The RFP forms and any solicitation amendments must be signed and returned with the proposal. The forms submitted shall be signed by a person authorized to submit an offer. Authorized signature on the RFP forms shall constitute an irrevocable offer to provide services specified herein. DBE shall submit any additional requested documentation, signifying intent to be bound by the terms of the agreement.

- The authorized person signing the proposal shall initial all interlineations, annotations, deletions, alterations, erasures and other modifications on the proposal.
- Periods of time, stated as days, shall be in calendar days.
- It is the responsibility of all DBEs to examine the entire Request for Proposals package and seek clarification of any requirement that may not be clear and to check all responses for accuracy before submitting a proposal. Negligence in preparing a proposal confers no right of withdrawal after the due date and time.
- OCFA shall not reimburse the cost of developing, presenting, submitting or providing any response to this solicitation.
- DBE must list any subcontractors to be utilized in the performance of the services specified herein. For each subcontractor, details on respective qualifications must be included.
- Each DBE shall submit its proposal in strict conformity with the requirements of the RFP documents. Unauthorized additions, modifications, revisions, conditions, limitations, exclusions or provisions attached to a proposal may render it non-responsive and may cause its rejection. DBEs shall not delete, modify, supplement printed matter on the RFP forms.
- **Verbal, telephonic, facsimile, email or other electronic proposals or modifications will not be considered.**

**31. PROPOSAL CERTIFICATION**

By signature on the RFP Response Forms, DBE certifies:

- The DBE has thoroughly examined and become familiar with the requirements of this RFP;
- Clear understanding of the rules as defined in this RFP and compliance with all terms and conditions specified herein;
- The DBE is an authorized and/or certified retailer and/or installer of the specified items;
- The submission of the proposal did not involve collusion or other anti-competitive practices;
- The proposal is compliant with all state and federal laws;
- The DBE will not discriminate against any employee or applicant for employment in violation of Federal or State law;
- The DBE has not given, offered to give, and does not intend to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to any Director, officer, or employee of OCFA in connection with the submitted offer;
- That the individual signing the submittal is an authorized agent for the DBE and has the actual authority to legally bind the DBE to the Contract;
- That its principal and named subcontractors are not debarred, suspended or otherwise excluded by the United States Government, in compliance with the requirements of 7 Code of Federal Regulations (CFR) 3016.35, 28 CFR 66.35, 29 CFR 97.35, 34 CFR 80.35, 45 CFR 92.35 and Executive Order 12549.

**32. ACCEPTANCE PERIOD**

Unless otherwise specified herein, bids are firm and may be accepted by OCFA at any time within 180 days of the RFP due date.

**33. PROPOSAL OPENING**

All the proposals opened by the OCFA will be subject to further evaluation with respect to responsiveness of the proposal and for purposes of determining that the DBE is responsible. **Please note that there will be no public opening of proposals.**

**34. SUBLETTING AND SUBCONTRACTING.**

Pursuant to the Subletting and Subcontracting Fair Practices Act (commencing with Section 4100 of the Public Contract Code), DBEs are required to list in their proposal the name, business address, California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor known at the time of submittal who will perform work or labor or render services in or about the construction of the work or improvement, or a subcontractor who specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and Specifications in excess of 1/2 of 1% of the prime Contractor's total bid or \$10,000, whichever is greater. If a subcontractor's California contractor license number or public works contractor registration number are submitted incorrectly in the bid, it will not be grounds for filing a protest or grounds for considering the proposal nonresponsive if the corrected subcontractor's California contractor license number is submitted to OCFA within 24 hours after the RFP due date.

If the DBE fails to list a subcontractor for a portion of work or if the DBE lists more than one subcontractor of the same portion of work in excess of 1/2 of 1% of the total bid or \$10,000, whichever is greater, the DBE agrees that it is fully qualified to perform that portion of work itself, and that the DBE shall perform that portion of work itself. If after award of the contract, the DBE actually subcontracts that portion of work, except as provided in Public Contract Code Section 4107 or 4109, the DBE shall be subject to the penalties listed in Section 4111 of the Public Contract Code. It is the OCFA's intent for the Subletting and Subcontracting Fair Practices Act to apply to all phases of the work.

**34.1 NO INCREASE IN BID COST DUE TO SUBSTITUTION OF SUBCONTRACTOR.**

In the event that a subcontractor is substituted in any manner for any reason, any increased cost related to such substitution shall be the sole responsibility of the Contractor. Such

substitution shall not cause or result, directly or indirectly, in any increase in the bid price. This subsection shall not be construed to be prior consent to substitution of subcontractors, nor to authorize any substitution that is prohibited by the Subletting and Subcontracting Fair Practices Act.

### **35. PRICING**

Contractors shall provide itemized pricing. No aggregate bids will be considered. The bid must state the amount for which the contractor offers to supply all labor, materials, equipment, tools, transportation, services and applicable taxes to perform all work specified. Bids shall not contain any conditions, limitations or provisions for the work to be done. Alternative bids will not be considered unless requested. In case of discrepancy between the numerical lump sum price and the written lump sum price, the written lump sum price shall prevail.

### **36. TAXES**

No mention shall be made in the proposal of Sales Tax, Use Tax, or any other tax, as all amounts set forth in the bid will be deemed and held to include any such taxes that may be applicable. DBE acknowledges and agrees that OCFA shall not be responsible for the payment of any increase in any Sales Tax, Use Tax, or any other tax that takes effect after award.

### **37. COMPLIANCE WITH LAWS**

All proposals shall comply with current and applicable federal, state, and local laws relative thereto.

### **38. GROUNDS FOR DISQUALIFICATION**

OCFA may disqualify a submittal for any of the following reasons:

- Contact regarding this procurement is made with any OCFA Director, officer or employee other than those in the Purchasing Department from the time of issuance until the end of the dispute period;
- Evidence of collusion, directly or indirectly, among DBEs regarding the amount, terms, or conditions of this solicitation is found;
- Evidence of submitting incorrect information in the response to this solicitation or misrepresenting or failing to disclose material facts during the award process is found;
- Submittal of added terms, conditions, or agreements with the proposal;
- Offering of gifts or souvenirs, even of minimal value, to OCFA Directors, officers or employees;
- The existence of any lawsuit, unresolved contractual claim or dispute between the DBE and OCFA;
- Evidence of the DBE's inability to successfully complete the responsibilities and obligations of the RFP is found;
- DBE's default under any OCFA agreement.
- No DBE shall be allowed to make, submit or be interested in more than one bid. No person, firm, corporation, or other entity may submit a sub-proposal to a DBE, or quote prices of materials to a DBE when also submitting as a prime on the same project. A person, firm, or corporation who has submitted a sub-proposal to a DBE, or who has quoted prices on materials to a DBE, is not thereby disqualified from submitting a sub-proposal or quoting prices to other DBEs. Reasonable grounds for believing that any DBE is interested in more than one Proposal for the same work will cause the rejection of all Proposals for the work in which a Firm is interested.

### **39. PUBLIC RECORD**

All proposals submitted in response to this RFP shall become the property of OCFA and shall become a matter of public record available for review when required by law, including but not limited to the California Public Records Act. If a respondent believes that any portion of its proposal is exempt from public disclosure, such portion may be marked "confidential." OCFA will use reasonable means to ensure that such confidential information is safeguarded but will not be held liable for inadvertent disclosure of such materials, data and information. **Proposals marked "confidential" in their entirety will not be**

**honored and OCFA will not deny public disclosure of all or any portion of proposals so marked.**

By submitting information with portions marked "confidential", the respondent represents it has a good faith belief that such material is exempt from disclosure under the California Public Records Act and agrees to reimburse OCFA for, and to indemnify, defend and hold harmless OCFA, its officers, fiduciaries, employees and agents from and against: (a) any and all claims, damages, losses, liabilities, suits, judgments, fines, penalties, costs and expenses including, without limitation, attorneys' fees, expenses and court costs of any nature whatsoever (collectively, "Claims") arising from or relating to OCFA's non-disclosure of any such designated portions of a proposal if disclosure is deemed required by law or court order. Additionally, OCFA may request that the DBE/respondent directly defend any action for disclosure of any information marked confidential.

**40. CLAYTON ACT AND CARTWRIGHT ACT**

In accordance with Section 7103.5 of the Public Contract Code, in entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to OCFA all rights, and interest in and all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

**41. INSURANCE**

The successful DBE shall procure the insurance in the form and in the amount specified in the Contract Documents, including but not limited to the General Conditions. Failure to do so may result in forfeiture of the bid guarantee. No time extensions or extra payments shall be made to contractor for delays it may encounter in obtaining such coverage.

Contractor shall not commence work under the agreement until he/she has obtained all required insurance, including any and all endorsements, and the insurance has been approved by the OCFA as to form, amount, and carrier, nor shall Contractor allow any subcontractor to commence any work until all insurance required of the subcontractor has been obtained and approved.

**42. SUBSTITUTION OF SECURITIES**

In conformance with Public Contract Code Section 22300, which is incorporated herein by this reference, the Contractor may substitute securities for any monies retained by the OCFA to ensure performance under the Contract or, in the alternative, may request payment of retention earned directly to an escrow agent.

At the request and expense of the Contractor, the Contractor has the option to deposit securities, which have been approved by the OCFA, with a State or Federally chartered bank as the escrow agent or require the OCFA to deposit 5% of each progress payment with the escrow agent. Said securities will be used as a substitute for retention earnings required to be withheld by the OCFA pursuant to the construction contract. Said securities shall have no obligation to any other construction contract for substitution of securities in lieu of retention. When the Contractor deposits the OCFA approved securities with the escrow agent, the escrow agent shall notify the OCFA within 10 calendar days of the deposit. Said securities shall be evaluated quarterly by the escrow agent to verify the current market value. If the current market value of said securities falls below the required amount, the escrow agent shall notify the Contractor and require additional securities and/or cash to be submitted for OCFA approval, and to be held in the escrow account to meet the Contractor's obligations. The escrow agent shall hold said securities until such time as the escrow agent receives written notification from the OCFA that the Contractor has satisfactorily completed his Contract obligations.

The type of securities deposited and the method of release shall be approved by the OCFA's Office of General Counsel.

If the Contractor chooses not to exercise its rights under Public Contract Code Section 22300, the full five percent (5%) retention will be deducted from all payments. The final retention will be authorized for payment thirty-five (35) days after the date of recordation of the Notice of Completion, if no stop notices have been filed. The OCFA may withhold from release of the final retention amounts authorized under Public Contracts Code Section 7107 and/or 125% of the cumulative amounts identified in all stop notices.

#### **43. AWARD AND EXECUTION OF CONTRACT.**

Following receipt of the Notice of Intent to Award, and no more than ten (10) days prior to submittal of the recommendation for award of contract to the OCFA Board of Directors, the successful DBE shall submit the following items to the Purchasing Manager or designee all documents required in Section 4: Contract Documents including:

- All evidence of insurance as required in the General Conditions
- Two (2) Original Signed Contract Agreements including General Conditions
- Faithful Performance Bond
- Material and Labor Bond
- Award Certifications
- Form W-9

**FAILURE TO COMPLY WITH ALL OF THE ABOVE WILL RESULT IN ANNULMENT OF THE AWARD AND FORFEITURE OF THE PROPOSAL GUARANTEE AT THE SOLE DISCRETION OF OCFA.**

The Contract Agreement shall not be considered binding upon the OCFA until executed by the authorized OCFA officials.

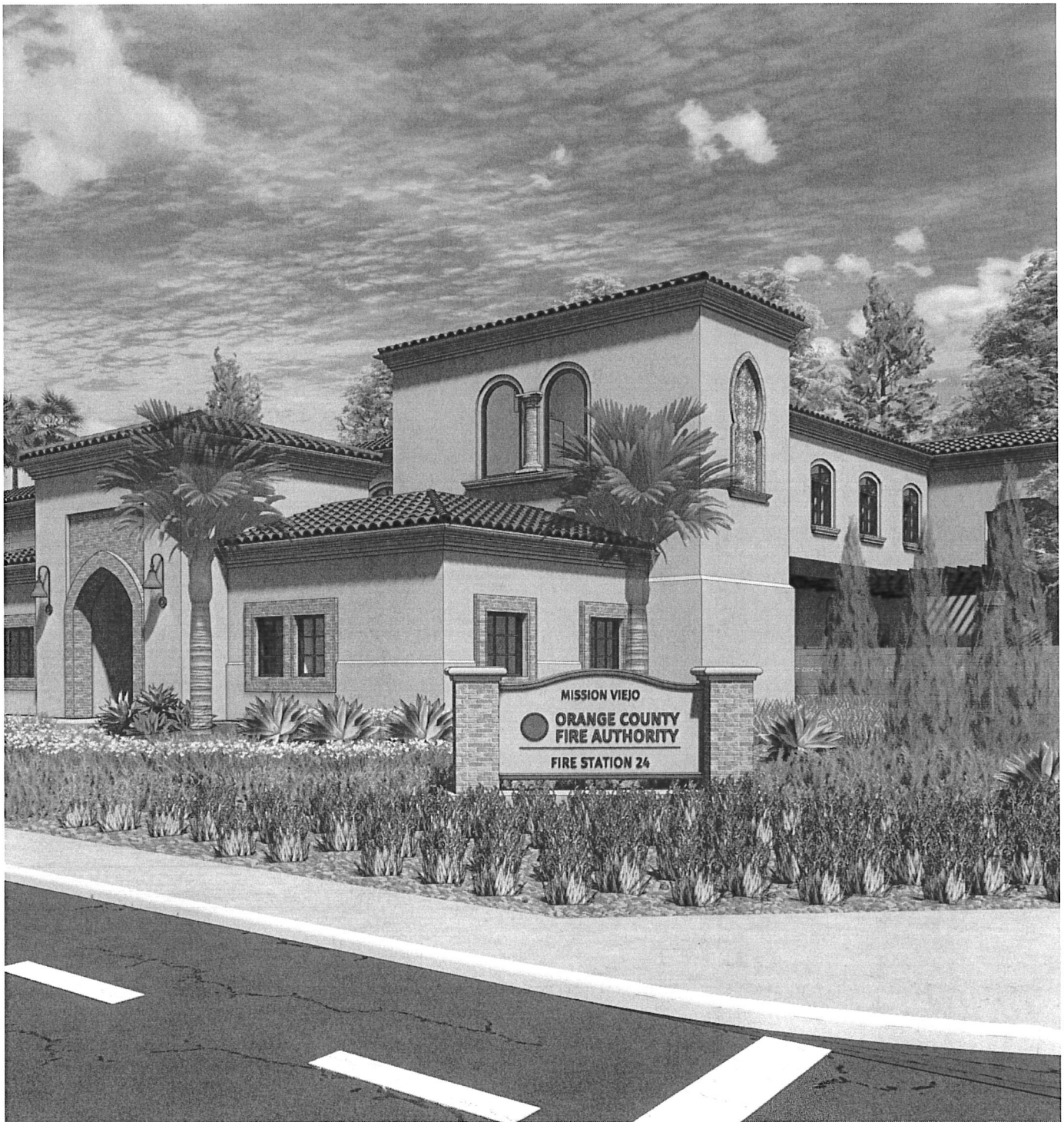
### SECTION 3: PROPOSAL DOCUMENTS

To achieve a uniform review process and obtain the maximum degree of comparability, it is required that the DBE submit the following documents, organized in the manner specified below. All DBEs are expected to provide detailed answers where requested. Additional information, if provided, should be separately identified in the proposal. Failure to submit these documents may result in the proposal being deemed non-responsive.

**Proposal Response Format:**

DBEs shall submit a written proposal that presents the DBE's understanding of the services to be provided and the work to be performed. DBEs are asked to address each evaluation criterion and to be specific in presenting their services. Proposals shall include, at a minimum, the following:

- ☐ **Letter of Transmittal (3A)**
- ☐ **Original Bidder's Bond (3B)**
- ☐ **Certification of Proposal (3C)**
- ☐ **Non-Collusion Affidavit (3D)**
- ☐ **Contractor's Licensing Certification (3E)**
- ☐ **List of Subcontractors (3F)**
- ☐ **Designation of Sureties (3G)**
- ☐ **Bidder's Certification of Compliance with Insurance Requirements (3H)**
- ☐ **Certification of Site Examination (3I)**
- ☐ **Offer / Cost Proposal** *must be submitted under separate sealed envelope.* (3J)
- ☐ **Questionnaire for Minimum Design Requirements (3K)**
- ☐ **Questionnaire for Quality of Design (3L)**
- ☐ **Questionnaire for Method of Approach (3M)**
- ☐ **Party and Participant Disclosure Forms (3N)**



# OCFA MISSION VIEJO FIRE STATION 24

## Design-Build Services Proposal

January 13, 2022

Orange County Fire Authority

Response to RFP Number SK2489b

9834 River Street

Lakeside, CA 92040

Ph: 619.440.7181 Fax: 619.440.7180

Prepared By:



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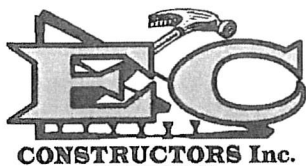
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- Ⓐ Letter of Transmittal
- Ⓑ Original Bidder's Bond
- Ⓒ Certification of Proposal
- Ⓓ Non-Collusion Affidavit
- Ⓔ Contractor's Licensing Information
- Ⓕ List of Subcontractors
- Ⓖ Designation of Sureties
- Ⓗ Bidder's Certification of Compliance with Insurance Requirements
- Ⓘ Certification of Site Examination
- Ⓣ Offer / Cost Proposal
- Ⓚ Minimum Design Requirements
- Ⓛ Quality of Design
- Ⓜ Method of Approach
- Ⓝ Party and Participant Disclosure Forms



# Letter of Transmittal

---



9834 River Street  
Lakeside, CA 92040  
jim@ecconstructors.com  
(619) 440-7181

Orange County Fire Authority  
Purchasing Department  
1 Fire Authority Road  
Building C  
Irvine, CA 92602

Attn: Rothchild Ong  
Assistant Purchasing Agent  
rothchildong@ocfa.org  
(714) 573-6642

Dear Selection Committee:

EC Constructors, Inc. (ECC) is pleased to have the opportunity to submit our proposal for Design Build Services on the Fire Station #24 project with the Orange County Fire Authority. ECC and its design team are well suited to provide superior design and construction services for the new fire station and associated site work. Our team has significant experience designing and constructing similar type facilities. ECC and JKA have recently completed design and construction of six fire station projects as well as several other design build projects.

The ECC team understands that the Authority is hiring a Design Build Entity to collaborate with the Authority Team to provide a quality facility on time and within the guaranteed maximum price. ECC has selected Jeff Katz Architecture (JKA) as the lead design firm for our team. The ECC management team has collaborated with JKA, design consultants, and our major subcontractors to respond to the RFP. The ECC management team assigned to this project has been involved in the RFP response, and will be included in the design and construction process to ensure continuity and efficiency in the communications and execution of the work.

The ECC Management Team is well versed and experienced working collaboratively on past projects. Cory Summers, PM, recently completed two design build fire station projects constructed concurrently in Chula Vista and Toby Wiest, Superintendent completed construction of Fire Station 22 for City of San Diego. ECC has an experienced management staff lead by Jim Summers and has listed highly qualified major subcontractors to work collaboratively with ECC, the Authority, and our design team to complete this project.

The ECC management team and JKA have the necessary experience and expertise to successfully work with Authority Team, City of Mission Viejo, and other Agencies for approval of plans and permitting of the work. The team we have proposed for this project has the required experience to successfully accomplish the design and approval process.

The ECC Team believes in constant and open communication with Owner Representatives throughout the project. This starts with the project kick-off meeting and continues throughout project design & construction, close-out, and warranty period. Our team will set up regular design coordination review meetings and construction coordination meetings with the Authority Staff to insure proper communications and coordination efforts. The ECC Management team assigned to this project will be involved in the proposal, design, construction, close-out and warranty period for the project. We do not utilize a "design team" and then hand-off to a "construction team." This has proven to be the most efficient and effective manner to properly execute a design build project and maintain the best communication with the Owner's Representatives.

ECC acknowledges Addenda 1-5 as issued by the Authority for this solicitation.

ECC understands the requirements to design and construct a facility that operates efficiently and has a life expectancy of 50 years without any significant failures or deficiencies. While there is normal maintenance and normal wear & tear with any facility, this facility will be designed and constructed so there are no unreasonable failures or deficiencies in the architectural, structural, mechanical, and electrical systems.

ECC has a current and valid Contractor's License #585677 with A, B, and C-8 classifications. ECC has a current and valid DIR #1000004249. As noted in the prequalification package we submitted to be shortlisted, ECC and JKA have more than 10 years of experience providing the same or similar services on similar facilities. Specifically, ECC has experience constructing 10 fire stations and several other essential service facilities within the last 10 years.

ECC agrees that proposals shall remain valid for one hundred and eighty (180) days.

Sincerely,

James J. Summers  
President



# **Original Bidder's Bond**

---

Orange County Fire Authority

Solicitation No. SK2489b

**3B: BIDDER'S BOND**

(10% of Agreement Price)

**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, EC Constructors, Inc. as Principal ("Principal"), and Hartford Fire Insurance Company as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of Connecticut and authorized to do business as a surety in the State of California, are held and bound unto the Orange County Fire Authority ("OCFA") of Orange County, State of California as Obligee, in the sum of Ten Percent of the total bid Dollars (\$ 10% of the total bid amount ) lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the OCFA for all work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Project and, within the time and manner required under the Bid Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract ("Agreement"), in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the Agreement and to file the required performance and labor and material bonds, and to meet all other conditions to the Agreement between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to submit and execute the Agreement award documents as required in the Invitation for Bid Document within the timeline specified therein.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the OCFA awards the bid, the security of unsuccessful DBE(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no DBE may withdraw its bid for ninety (180) days after the date of the bid opening.


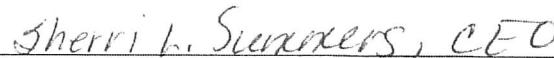
**[Signature Page Follows]**

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 29th day of December, 2021, accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

**CONTRACTOR:**

(Affix Corporate Seal)

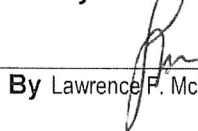
EC Constructors, Inc.

**Principal****By****Print Name and Title of Signatory****SURETY:**

(Affix Corporate Seal)



Hartford Fire Insurance Company

**Surety****By** Lawrence P. McMahon, Attorney-in-Fact

Alliant Insurance Services

**Name of California Agent of Surety**

701 B Street, 6th Floor, San Diego, CA 92101

**Address of California Agent of Surety**

619-238-1828

**Telephone Number of California Agent of Surety**

Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

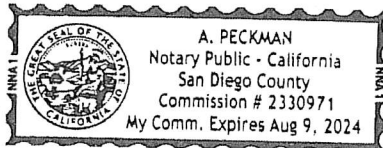
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
 County of San Diego )  
 On 11/10/2022 before me, A. Peckman, Notary Public,  
 Date Here Insert Name and Title of the Officer  
 personally appeared Sherri Summers  
 Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(x) whose name(s) is/~~are~~  
 subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in  
~~his~~/her/~~their~~ authorized capacity(ies), and that by ~~his~~/her/~~their~~ signature(s) on the instrument the person(s),  
 or the entity upon behalf of which the person(x) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws  
 of the State of California that the foregoing paragraph  
 is true and correct.

WITNESS my hand and official seal.



Signature [Signature]  
 Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or  
 fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: Sherri Summers

☒ Corporate Officer — Title(s): CEO

☐ Partner — ☐ Limited ☐ General

☐ Individual ☐ Attorney in Fact

☐ Trustee ☐ Guardian or Conservator

☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_

☐ Partner — ☐ Limited ☐ General

☐ Individual ☐ Attorney in Fact

☐ Trustee ☐ Guardian or Conservator

☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT** Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

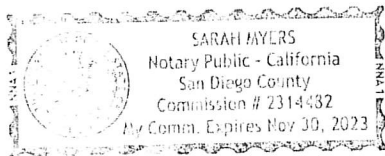
STATE OF CALIFORNIA

County of San Diego

On DEC 29 2021 before me, Sarah Myers, Notary Public,  
Date Insert Name of Notary exactly as it appears on the official seal

personally appeared Lawrence F. McMahon

Name(s) of Signer(s)



Place Notary Seal Above

who proved to me on the basis of satisfactory evidence to be the person(~~he~~) whose name(~~he~~) is/~~he~~ subscribed to the within instrument and acknowledged to me that he/~~he~~ executed the same in his/~~he~~ authorized capacity(~~he~~), and that by his/~~he~~ signature(~~he~~) on the instrument the person(~~he~~), or the entity upon behalf of which the person(~~he~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature

Signature of Notary Public Sarah Myers

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of the form to another document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner ☐ Limited ☐ General  
☒ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

**RIGHT THUMBPRINT  
OF SIGNER**

Top of thumb here

Signer is Representing:

Surety Company

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

**RIGHT THUMBPRINT  
OF SIGNER**

Top of thumb here

Signer is Representing:

# POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-11

One Hartford Plaza

Hartford, Connecticut 06155

Bond.Claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: ALLIANT INSURANCE SERVICES INC

Agency Code: 72-160200

- ☒ Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- ☒ Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- ☒ Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- ☐ Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- ☐ Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- ☐ Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- ☐ Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- ☐ Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of Unlimited :

Lilia De Loera, Maria Guise, Janice Martin, Lawrence F. McMahon, Sarah Myers of SAN DIEGO, California

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



*Shelby Wiggins*

Shelby Wiggins, Assistant Secretary

*Joelle L. LaPierre*

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA

COUNTY OF SEMINOLE

ss. Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.



*Jessica Ciccone*

Jessica Ciccone  
My Commission HH 122280  
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of December 29, 2021.

Signed and sealed in Lake Mary, Florida.



*Keith D. Dozois*

Keith D. Dozois, Assistant Vice President



## **Certification of Proposal**

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**3C: CERTIFICATION OF PROPOSAL**

In responding to RFP SK2489b Design-Build Services for OCFA Mission Viejo Fire Station #24, the undersigned Bidder(s) certifies the following:

1. Bidder agrees to provide all necessary labor, materials, equipment, and services to OCFA per the specifications contained herein and that all furnished labor is able to work in harmony with all other elements of labor employed or to be employed on the work.
2. Bidder further agrees to the terms and conditions specified herein, the following terms and conditions that are a part of this RFP, and the resulting Contract Agreement. **If there are any exceptions to or deviations from the terms of the Contract Documents (Section 4), they must be stated in an attachment included with the proposal.** Where Bidder wishes to propose alternatives to the OCFA's contractual requirements, these should be thoroughly explained. While exceptions will be considered, OCFA reserves the right to determine that an offer is non-responsive based upon any exceptions taken. OCFA's governing body reserves the right to deny any material exceptions to the contract. If no contractual exceptions are noted, Bidder will be deemed to have accepted the form of the contract requirements set forth in Section 4.
3. The Bidder hereby certifies that the individual signing the submittal is an authorized agent for the Bidder and has the OCFA to legally bind the Bidder to the Contract.
4. The undersigned has reviewed the work outlined in the documents and fully understands the scope of work required, understands the construction and project management function(s) as described, and that each contractor who is awarded a contract shall be in fact the prime contractor, not a subcontractor, to the OCFA, and agrees that its offer, if accepted by the OCFA, will be the basis for the contractor to enter into a contract with the OCFA.
5. The undersigned had notified the OCFA in writing any discrepancies or omission or of any doubt, questions, or ambiguities about the meaning of any of the RFP documents.
6. By submitting this Offer Form and signing below, the liquidated damages clause of the Agreement is hereby acknowledged.
7. It is understood that the OCFA reserves the right to reject this proposal and that the proposal shall remain open to acceptance and is irrevocable for a period of one hundred eighty (180) days.
8. Contractor expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the OCFA will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the contractor may be subject to criminal prosecution.
9. Labor Code Section 1735 requires that no discrimination be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status or sex of such persons, except as provided in Government Code Section 12940. Bidder certifies that it does not discriminate in its employment with regard to the factors set forth in Labor Code Section 1735; that it is in compliance with all federal, state and local directives and executive orders regarding non-discrimination in employment; and that it agrees to demonstrate positively and aggressively the principle of equal employment opportunity in employment.
10. The Bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager: (1) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any

Federal agency; (2) has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years; (3) does not have a proposed debarment pending; and (4) has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

**To the Orange County Fire Authority:**

Contractor hereby certifies to the OCFA that all representations, certifications, and statements made by the contractor, as set forth in this offer form, are true and correct and are made under penalty of perjury. The Undersigned hereby offers and shall furnish the services in compliance with all terms, scope of work, conditions, specifications, and amendments in the Request for Proposal which is incorporated by reference as fully set forth herein. The representations herein are made under penalty of perjury.

LEGAL NAME OF CONTRACTOR: EC Constructors IncSIGNATURE OF CONTRACTOR: *Sherri Summers*PRINTED NAME: Sherri SummersTITLE: CEOCONTRACTOR ADDRESS: 9834 River StreetCITY: LakesideSTATE: CAZIP CODE: 92040**IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:**NAME OF CORPORATION: EC Constructors IncDATE OF INCORPORATION: 12-19-2005PRESIDENT: Jim SummersTREASURER: Sherri Summers  
CEOSECRETARY: Cory Summers~~MANAGER:~~ Lyndsi Summers  
CFO

SUBSCRIBED AND SWORN TO BEFORE ME

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_

BY Sherri Summers

(Print Name)

(Signature of Notary Public)

*Sherri Summers*  
(Signature)

(Attach Jurat)

TITLE CEO*SEE ATTACHED*

(SEAL)

(SEAL)

**CALIFORNIA JURAT WITH AFFIANT STATEMENT**

**GOVERNMENT CODE § 8202**

- ☐ See Attached Document (Notary to cross out lines 1-6 below)  
☐ See Statement Below (Lines 1-6 to be completed only by document signer[s], *not* Notary)

\_\_\_\_\_  
*Signature of Document Signer No. 1*

\_\_\_\_\_  
*Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of San Diego

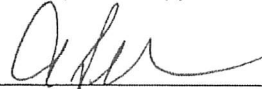
Subscribed and sworn to (or affirmed) before me

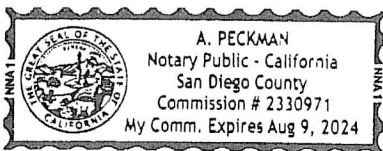
on this 10 day of January, 2027  
by Date Month Year

(1) Sherrill Summers

(and (2) \_\_\_\_\_),  
*Name(s) of Signer(s)*

proved to me on the basis of satisfactory evidence  
to be the person(s) who appeared before me.

Signature   
*Signature of Notary Public*



*Seal*  
*Place Notary Seal Above*

**OPTIONAL**

*Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_



# **Non-Collusion Affidavit**

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**3D: NON-COLLUSION AFFIDAVIT**

STATE OF CALIFORNIA     )  
   ) SS  
 COUNTY OF San Diego     )

In conformance with Public Contract Code Section 7106, the party making the foregoing bid declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that such bid is genuine and not collusive or sham; that said DBE has not directly or indirectly induced or solicited any other DBE to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any DBE or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the DBE has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the DBE or any other DBE, or to fix any overhead, profit, or cost element of the bid price, or of that of any other DBE, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that the DBE has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Any person executing this declaration on behalf of a DBE that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the DBE.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on 1/10/22 [date], at Lakeside [city], CA [state]."

Signed *Steve Hanner*  
 CEO  
 Title

Subscribed and sworn to before me  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
 Signature of Notary Public

(SEAL)

*SEE ATTACHED*

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT****CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

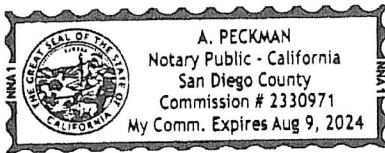
State of California )

County of San Diego )On 1/10/2022 before me, A. Peckman, Notary Public  
Date Here Insert Name and Title of the Officerpersonally appeared Sherri Summers  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(x) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature]  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**Signer's Name: Sherri Summers☒ Corporate Officer — Title(s): CEO☐ Partner — ☐ Limited ☐ General☐ Individual ☐ Attorney in Fact☐ Trustee ☐ Guardian or Conservator☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_☐ Partner — ☐ Limited ☐ General☐ Individual ☐ Attorney in Fact☐ Trustee ☐ Guardian or Conservator☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_



## **Contractor's Licensing Certification**

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**3E: CONTRACTOR'S LICENSING CERTIFICATION**

If the contractor is a sole proprietorship or another entity that does business under a fictitious name, the proposal shall be in the real name of the respondent with a designation following showing "DBA (the fictitious name)," provided however, that no fictitious name shall be used unless there is a current registration with the Orange County Recorder. If the proposal is submitted by a corporation, provide an additional attachment that states the names of the officers who can sign an agreement on behalf of the corporation and whether more than one officer must sign. If the proposal is by a partnership or a joint venture, state the names and addresses of all general partners and joint venture parties.

The undersigned certifies that the contractor is licensed in accordance with the laws of the State of California to do the type of work required. Contractor further certifies that it is regularly engaged in the general class and type of work called for in this Request for Proposals. The successful contractor and subcontractors are required to hold the State of California Contractor's License(s) and DIR registration as required by SB854. Please complete and/or provide all requested information.

**CONTRACTOR'S**  
**LICENSE NO:** 585677 **CLASS:** A,B, C8 **EXPIRATION:** 02/29/24

**CA DIR REGISTRATION NUMBER:** 1000004249 **EXPIRATION:** 06/30/22

**CONTRACTOR TELEPHONE:** 619-440-7181 **CONTRACTOR FAX:** 619-440-7180

**BUSINESS ADDRESS:** 9834 River Street Lakeside CA 92040

**LENGTH OF TIME IN BUSINESS:** 17 years

**LENGTH OF TIME AT CURRENT LOCATION:** 10 years

**NUMBER OF EMPLOYEES:** 60 **NUMBER OF CURRENT CLIENTS:** 7

---

*If the contractor operates as a sole proprietorship:*

**NAME OF INDIVIDUAL CONTRACTOR:** N/A

**SIGNATURE OF OWNER:** N/A

**BUSINESS ADDRESS:** N/A

---

*If the contractor operates under a partnership:*

**NAME OF FIRM:** N/A

**PARTNER NAME:** N/A **PARTNER TITLE:** N/A

**PARTNER ADDRESS:** N/A

**SIGNATURE OF PARTNER:** N/A

**PARTNER NAME:** N/A **PARTNER TITLE:** N/A

**PARTNER ADDRESS:** N/A

**SIGNATURE OF PARTNER:** N/A

*If contractor operates under a corporation:*

NAME OF CORPORATION: EC Constructors Inc

CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF CALIFORNIA:

SIGNATURE OF CORPORATION PRESIDENT

SIGNATURE OF THE CORPORATION SECRETARY

DATE 1/10/22*Management person responsible for direct contact with OCFA:*NAME: Jim SummersTITLE: PresidentTELEPHONE: 619-440-7181E-MAIL: jim@ecconstructors.com*Person responsible for the day-to-day servicing of the account/project.*NAME: Jim SummersTITLE: PresidentTELEPHONE: 619-440-7181E-MAIL: jim@ecconstructors.com

SUBSCRIBED AND SWORN TO BEFORE ME

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_

(Signature of Notary Public)

(Attach Jurat)

BY

Sherri Summers

(Print Name)

(Signature)

TITLE CEO*SEE ATTACHED*

(SEAL)

(SEAL)

**CALIFORNIA JURAT WITH AFFIANT STATEMENT**

**GOVERNMENT CODE § 8202**

- ☐ See Attached Document (Notary to cross out lines 1-6 below)  
☐ See Statement Below (Lines 1-6 to be completed only by document signer[s], *not* Notary)

\_\_\_\_\_  
*Signature of Document Signer No. 1*

\_\_\_\_\_  
*Signature of Document Signer No. 2 (if any)*

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State of California

County of San Diego

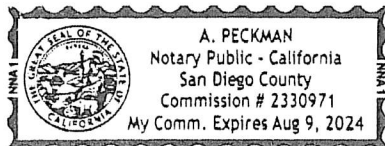
Subscribed and sworn to (or affirmed) before me

on this 10 day of January, 2023  
by Date Month Year

(1) Sheri Summers

(and (2) \_\_\_\_\_),  
*Name(s) of Signer(s)*

proved to me on the basis of satisfactory evidence  
to be the person(s) who appeared before me.



Signature \_\_\_\_\_  
*Signature of Notary Public*

*Seal*  
*Place Notary Seal Above*

**OPTIONAL**

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**Description of Attached Document**

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Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_



## List of Subcontractors

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## PROPOSED SUBCONTRACTORS

Full Company Name, Address, Phone & Email	Scope of Work	% of Total Contract	CA License No. & Classification; DIR Registr. No.
<b>BARRACK - NICKOLS CONTRACTING INC</b> 9915 PROSPECT AVE SANTEE, CA 92071 Business Phone Number:(619) 562-2105 mike@barrack-nickols.com	Plumbing / Site Utilities	4.56%	862897, B,C36; 1000025113
<b>CLEAVENGER MASONRY INC</b> P O BOX 2337 ALPINE, CA 91903 Business Phone Number:(619) 390-7997 andrea@cleavengermasonry.net	Masonry	3.51%	936516, C8,C29;1000004708
<b>E L HOBBS INC</b> PO BOX 966 EL CAJON, CA 92022 Business Phone Number:(619) 401-1708 shobbs@elhobbsinc.com	Plaster / Drywall	5.49%	777073, B,C2,C9,C35; 1000004428
<b>GMAT INC</b> <b>dba INLAND OVERHEAD DOOR CO</b> 12401 SOUTH LA CADENA DR COLTON, CA 92324 Business Phone Number:(909) 783-3131 joe@iohd.com	Appbay Doors	2.00%	492369, C61/D28; 1000017098
<b>MECH ONE INC</b> 3154 AMBERWOOD LN ESCONDIDO, CA 92027 Business Phone Number:(760) 260-8121 laura@mechoneinc.com	Mechanical	3.97%	934023,C20; 1000001944
<b>SJ ELECTRIC</b> 8731 WINTER GARDENS BLVD LAKESIDE, CA 92040 Business Phone Number:(619) 592-2083 pjudd@sjecompany.com	Electrical	6.33%	1035709,C10;1000369720
<b>SYLVESTER ROOFING COMPANY INC</b> 306 N W EL NORTE PKWY #371 ESCONDIDO, CA 92026 Business Phone Number:(760) 743-0048 wes@sylvesterroofing.com	Roofing	1.50%	516696,C39,C43; 1000006357
<b>TITAN FIRE PROTECTION INC</b> 1341 DISTRIBUTION WAY #14 VISTA, CA 92081 Business Phone Number:(760) 295-3436 tscriven@titanfpinc.com	Fire Sprinkler	0.64%	989280, C16; 1000016631



## **Designation of Sureties**

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**3G: DESIGNATION OF SURETIES**

The following are the names, addresses and phone numbers for all brokers and sureties from whom DBE intends to procure insurance and bonds.

<b>Name</b>	Alliant Insurance Services, Inc
<b>Address</b>	701 B Street, 6th Floor, San Diego, CA 92101
<b>Phone No.</b>	(619) 849-3936
<b>Name</b>	The Hartford
<b>Address</b>	One Pointe Drive, Brea, CA 92821
<b>Phone No.</b>	(714) 614-1307
<b>Name</b>	
<b>Address</b>	
<b>Phone No.</b>	
<b>Name</b>	
<b>Address</b>	
<b>Phone No.</b>	



# **Bidder's Certification of Compliance with Insurance Requirements**

**3H: BIDDER'S CERTIFICATION OF COMPLIANCE WITH****INSURANCE REQUIREMENTS FOR PUBLIC WORKS CONSTRUCTION**

BIDDER agrees, acknowledges and is fully aware of the insurance requirements as specified in the INSTRUCTIONS TO BIDDERS FOR Design-Build Services for OCFA Mission Viejo Fire Station #24 AND IN THE SPECIAL PROVISIONS FOR Design-Build Services for OCFA Mission Viejo Fire Station #24 and accepts all conditions and requirements contained therein.

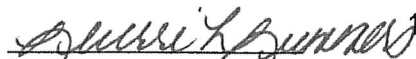
BIDDER acknowledges that ACORD forms will not be accepted when policy forms or endorsements are required.

BIDDER acknowledges that some insurance companies may be unwilling to issue all of the policy coverage and endorsements required in the conditions and requirements. It is BIDDER's responsibility to ensure that it will be able to provide evidence of all required types and amounts of insurance and all policy endorsements required hereunder.

BIDDER represents and warrants that, prior to signing below, BIDDER has confirmed with BIDDER's insurer(s) or insurance broker(s) that all required evidence of the types and amounts of insurance, and all required endorsements of insurance coverage, will be timely provided to OCFA in accordance with the conditions and requirements. Failure to provide all required evidence of insurance and endorsements when required will constitute a material breach of the agreement.

EC Constructors Inc

Bidder

 1/10/22  
By Sherri Summers, CEO Date



# **Certification of Site Examination**

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**3I: CERTIFICATION OF SITE EXAMINATION**

By signing below, DBE certifies each of the following:

1. DBE is fully informed of the conditions relating to the construction of the work and the employment of labor thereon
2. The specifications for the work show conditions as they are believed to exist. The conditions shown do not constitute a representation or warranty express or implied by the OCFA, its officers or agents that such conditions actually exist.
3. DBE has thoroughly examined the site for the work described herein and attended the mandatory pre-proposal inspection of the building(s) and site(s), conducted by the OCFA. Failure to attend the mandatory pre-proposal inspection shall be cause for rejection of the proposal.
4. DBE has observed the designated Contractor work areas, material equipment storage areas, access routes, as well as the ability to protect existing surface and subsurface improvements. No claim for allowance of time or money will be allowed for such matters.
5. DBE is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the work to be performed.
6. DBE acknowledges that there are certain peculiar and inherent conditions existent in the construction of the work that may create, during the work, unusual or peculiar unsafe conditions hazardous to persons and property and expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the work with respect to such hazards.

**To the Orange County Fire Authority:**

I certify that I have examined the site and the proposal is complete and there will be no requests for additional payment for failure to examine the site thoroughly.

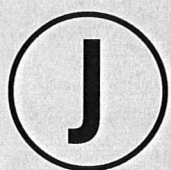
**Date of Site Examination:** 11/08/21

**Company Name:** EC Constructors Inc

**Signature:** \_\_\_\_\_

**Printed Name / Title of Company Representative:** Jim Summers, President

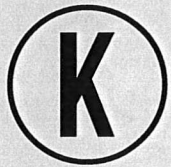
**Date:** 01/10/22



## **Offer / Cost Proposal**

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**(See Price Proposal)**



# **Minimum Design Requirements**

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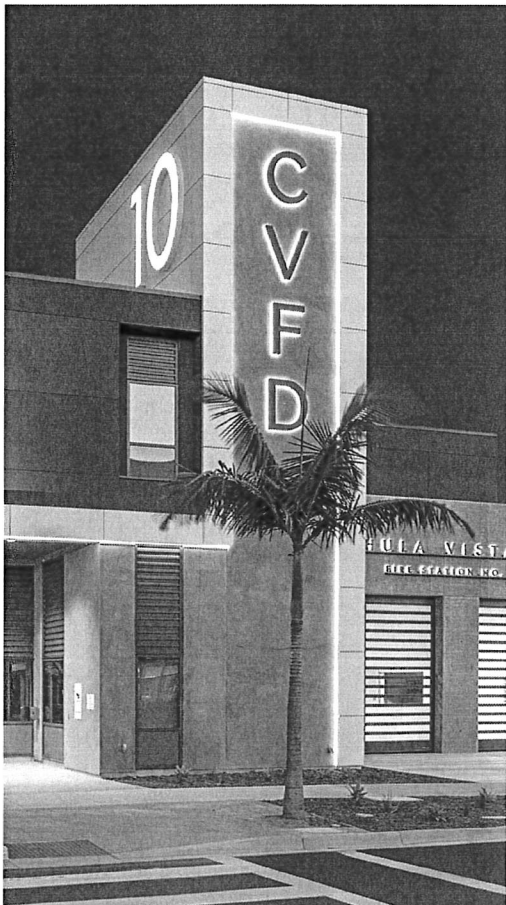
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## **K1** TECHNICAL DESIGN NARRATIVE

The design and construction of this new Fire Station offers the unique and challenging opportunity to create an exciting, modern, functional, and comfortable facility for the Orange County Fire Authority. Our stations are built to last, decrease response time, and provide the community with a landmark structure. Our years of Design-Build Fire Station experience and multitude of successfully completed stations have garnered us national acclaim, and we are able to bring that experience and innovation to you on this station. The proposed facility not only meets the operational requirements for the fire fighters working out of the station but provides an iconic civic structure that will serve as a gateway to the City of Mission Viejo's future development of the Core Area.

Our experience in working with various fire service agencies in the state has provided us with a broad understanding of how these agencies conduct their business. We understand the unique role that the Fire Department serves in the community, and the importance of providing a facility which meets both the fire fighters' living needs, as well as the functional requirements necessary for them to perform their tasks quickly and efficiently. We are well versed in stakeholder engagement and will proactively involve the Fire Authority, City of Mission Viejo, and the nearby HOA's to ensure everyone's concerns are addressed. This collaborative approach will make the project a success for all parties involved.

Our approach to the design of this project minimizes adverse effects on the exterior environment, enhances the quality of the indoor environment, and minimizes consumption of energy, water, and construction materials. This design will provide the Fire Authority a new station with the function, amenities, and comfort required in the RFP while utilizing best practices for fire station design. We believe that our design experience has allowed us to present a design which meets all the functional requirements of the RFP in a highly efficient layout.



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### **Site Design**

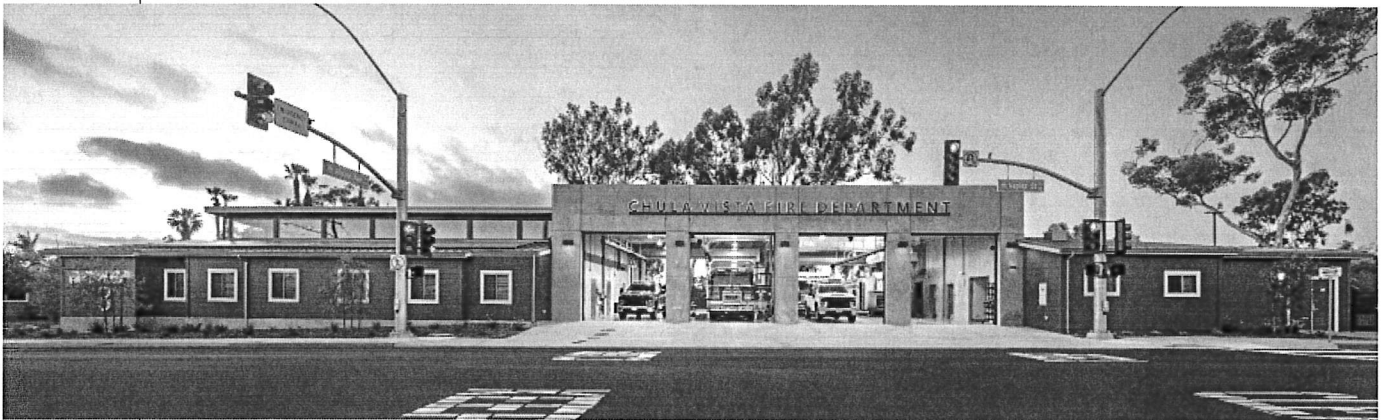
The site design proposed for the station focuses on several key elements:

- Functional layout and rapid response for fire personnel
- Safety and security for fire personnel
- Creating a prominent civic presence and attractive streetscape for the entrance to the Core Area development for the City of Mission Viejo
- Respectful attention to design detail to ensure compliance with Andalusian style architecture prevalent in this area of the community
- Location of apparatus exit drive north to minimize slope on drive and maintain a finish floor elevation that minimizes height of retaining wall in the northeast portion of the site
- Exit drive located north allows for safer and more efficient exit of apparatus to the south on Marguerite Parkway, especially from the two northern app bays
- Emergency Traffic Beacon provided to stop south bound traffic to allow exiting of station by apparatus
- Thoughtful attention to native, locally appropriate, and low water usage landscape design in conformance with the Basis of Design and direction provided in Addendum 3.

Our design addresses each of these items in a cohesive approach that considers the Fire Authority's functional needs while respecting the local community and Core Area development plans.

The first task in creating a cohesive concept design for this station was to analyze the site orientation, existing site utilities, traffic patterns, and proximity to adjacent neighbors. This project will be at the forefront of the Mission Viejo downtown area, so it requires careful design consideration and coordination to not only create an efficient and functional facility for the fire fighter operations, but also providing a clearly defined civic presence for the City. The placement and orientation of the two-story building on the site was a result of thoroughly examining the visibility from Marguerite Parkway, the property line and utility constraints, views from neighboring developments, as well as the circulation and turning radii requirements for the fire apparatus.

The egress driveway on the west side of the site will provide direct access to and from Marguerite Parkway. Emergency vehicle striping and a new emergency traffic beacon for southbound vehicles will be provided to ensure traffic will not interfere with the fire department's incident response operations. Lights in all directions at existing intersection signals will turn red stopping northbound traffic on Marguerite Parkway as well as traffic that would enter the intersection from the connecting street and shopping center exit drive. No Right Turn On Red signs will be posted for exit from shopping center.



The secure site area will be enclosed with a minimum six-foot-high masonry wall and integral colored shotcrete retaining walls will be utilized where necessary at the north and a portion of the east property lines. Twenty-four (24) standard secure parking spaces will be provided for fire personnel and one additional ADA adaptable space is provided in the secure parking area. A rolling vehicular gate and personnel accessible egress gate will be located on the north side of the site. Two public parking spaces, one standard and one ADA, are provided just off the north entry drive.

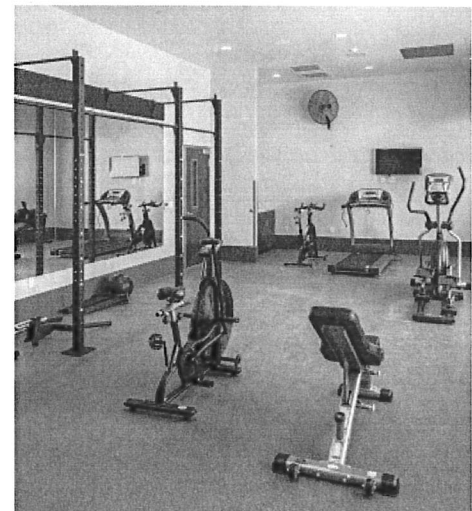
A concrete masonry trash and recycling enclosure with a concrete tile roof is located at the north entry drive and has been designed to integrate seamlessly with the exterior design of the building. The emergency generator and covered fueling station are located just north of the building, adjacent to the electrical room. The generator will be provided with a sound attenuation enclosure to provide sound mitigation.

The location and orientation of the building on the site was developed to meet all fire apparatus turning radius requirements, provide optimal ingress and egress locations while creating an attractive corner presence for Mission Viejo's Core Area. The entire property will be developed as part of this project with new retaining walls, landscaping, and slope modifications will be coordinated with the adjacent HOA's. The relocation of an existing piece of electrical gear to make way for the new driveway will be coordinated with the utility company. We have obtained utility maps from SDG&E which show this electrical gear to be a single feed which easily facilitate relocation of the gear without impact to others. The existing bus stop will be relocated just to the north of the site with accessible pathway provided to the fire station from this position.

### Performance and Functionality

A critical aspect of the layout of the interior of the Fire Station is the organization of the spaces to ensure the most efficient and direct access to the Apparatus Bay in order to minimize response time. We are extremely cognizant of the latest in industry trends for Hot Zone design, including spatial separation of clean and dirty functions, and specifically appropriate mechanical design of systems to maintain positive pressure ventilation to insure elimination of cross contamination. In addition to the "dirty" crew restroom directly off the app bay, we have also provided a decontamination room on the dirty side of the station. This decon space allows personnel returning from a call to clean up themselves and their equipment, both of which will help maintain the cleanliness of the living quarters and reduce the risk of contamination. This decon space also includes Washer/Dryer to allow potentially contaminated items to be laundered in this space rather than taken into the living quarters for cleaning. Additionally, this is an emergency response facility and an Essential Services Building. As such we have incorporated very specific functional effectiveness requirements into the design, some of which are defined below:

- Provide for continued services in the case of a disaster (Structural, communication systems, transformers & switch gear, emergency back-up systems, mechanical systems and operations)
- Efficient circulation from various spaces within the building accommodate quick access to systems in case of an emergency.
- Building Systems are functional and user friendly for daily operations.
- Adequate equipment storage and ease of access is provided for daily operations and maintenance of systems is minimized.



The proposed Fire Station meets all setback requirements, provides for accessibility including a hydraulic elevator, and has a maximum height of 32'-6". The Fire Station program includes 12 sleeping quarters for up to 12 fire fighters and 6 single occupancy restrooms with showers. The design proposes individual restrooms to easily accommodate variations in gender makeup of the future staff.

A critical aspect for the layout of the interior spaces of a Fire Station is ensuring the most efficient and direct access to the Apparatus Bay from all areas of the station, in order to minimize response time. We have accomplished this by providing fire poles at the ends of both upstairs hallways directly to the apparatus bay floor. In addition to the interior staircase, a second emergency egress stair is located exterior on the south east side of the station for code-required egress from the second floor.

The building construction shall be Type V-B, fully sprinklered. The first-floor spaces are a mix of concrete masonry walls at the apparatus bay for durability, and wood stud framing and gypsum wallboard with batt insulation as required by Title-24 for the living quarters side of the station. The bunk room walls will receive additional sound attenuating gypsum board and acoustical insulation.

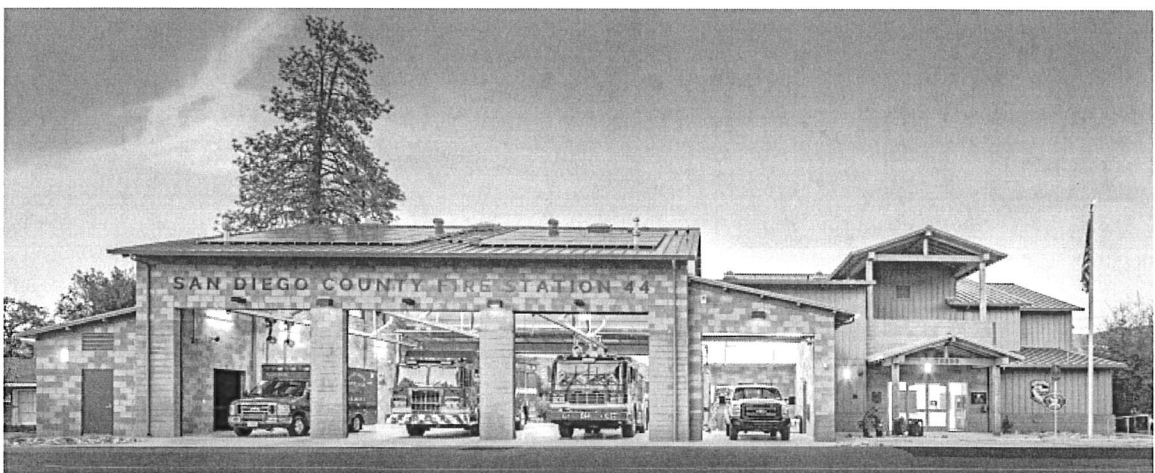
## K1 TECHNICAL DESIGN NARRATIVE

The Kitchen/Dining area is directly accessible to a shaded outdoor patio area which accommodates a BBQ and exterior seating. Extensive casework is provided within the kitchen for daily use storage including four pantry cabinets and upper and lower casework throughout. A small portion of the worksurface area will be ADA height in order to meet minimum design standards.

The Fitness Room is sized to accommodate a variety of free weights and functional training equipment and is provided with 11' high ceilings. We recognize that fitness needs are changing and evolving and the space should be flexible enough to accommodate future modification. An overhead coiling door is provided from the fitness room to facilitate indoor/outdoor training programs.

In addition to the functional amenities stated above, our design also provides the following added value and benefits to the project:

- Bi-fold doors in the front of the apparatus bay
- Enhanced fitness area square footage with a large, partially covered outdoor patio and roll up door for indoor/outdoor exercise opportunities.
- Janitorial, storage, and laundry facilities on both floors
- Exhaust fan in apparatus bay to provide for continual ventilation and ensure negative pressure relative to occupied areas of the facility.
- High Density concrete flooring in the Apparatus Bay
- Daylighting through large windows and tubular skylights will enhance the quality of the indoor environment and minimize energy usage during day-time hours.
- Corner guards to protect the corners and edges of the walls from rolling equipment and regular wear and tear.
- Paint and finishes on surfaces will be selected for washability and low absorption of fumes and microorganisms.
- Two ladder training braces (one high and one low) mounted on rear of the apparatus bay
- Vehicle wash down area with fox drain provided at rear driveway



### **Durability and Ease of Maintenance**

The true measure of design excellence is the facilities' ability to hold up over time. This fire station will be designed and constructed paying close attention to the wear and tear that emergency response facilities must withstand to achieve a 50+ year service life. Our stations receive high marks from all our end users for the innovative design and durable, low maintenance finishes and materials that we utilize. The following materials were selected for their durability, quality, attractiveness, and cohesive aesthetic that complements the surrounding Mission Viejo neighborhood.

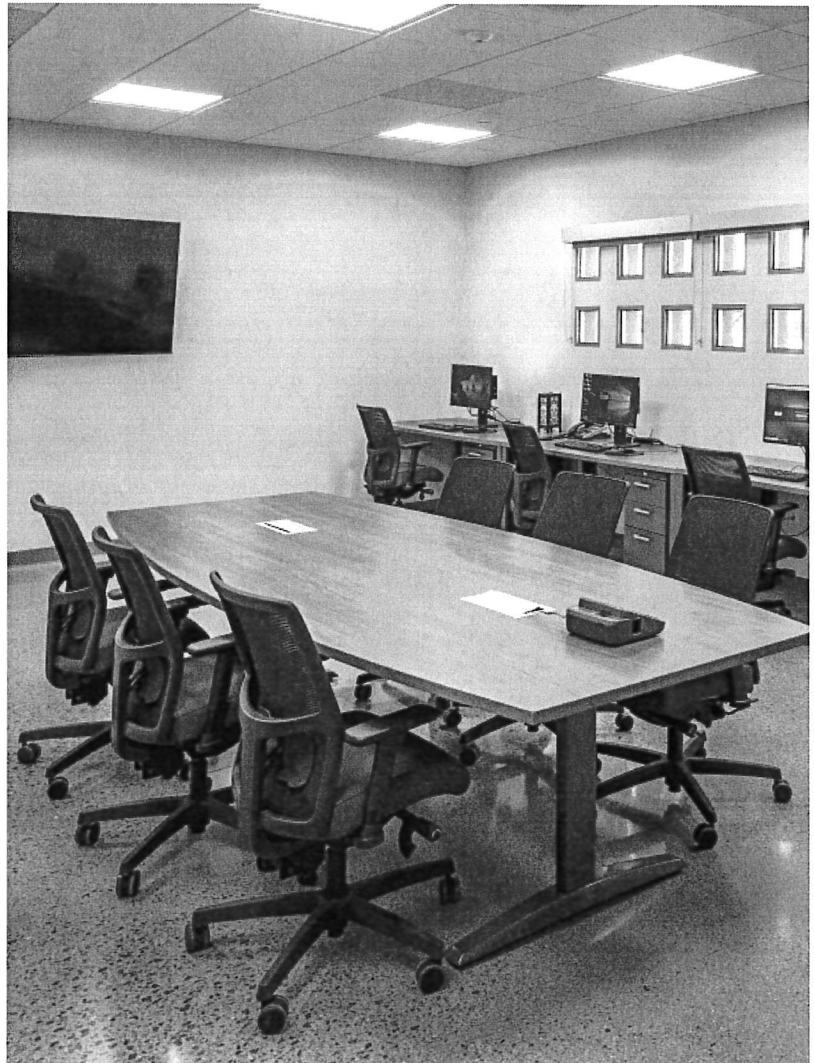
Proposed exterior finishes include multi-colored concrete masonry walls at the apparatus bay to provide a durable interior and exterior finish while accentuating the Andalusian style and complimenting the finishes on the rest of the building. Bi-fold apparatus bay doors will be utilized for their aesthetic quality and functionality at the front of the fire station. Coiling doors with vision lights will be used at the rear of the apparatus bay. The materials utilized for the balance of the station exterior include stucco, brick veneer, concrete tile roofing, mosaic accent tile, hollow metal doors and frames. Thermoplastic membrane roofing will be used for the flat roof areas.

Interior Finishes have been chosen for long life span, durability, and ability to maintain without requiring special equipment or specific skills.

Flooring in the apparatus bay will be high density polished concrete while the adjacent support spaces, administrative and living spaces on the first floor will be polished concrete. Sealed concrete will be utilized in the compressor room, elevator equipment room, and electrical room.

The fitness room will have rubberized flooring and we recommend low-maintenance luxury vinyl plank flooring to provide some sound control for the raised platform seating in the day room. The second-floor bunk rooms, laundry room, hallway, and storage spaces will also utilize vinyl plank flooring. The restrooms will have ceramic tile flooring with solid surface panels for showers and 4' high wainscot.

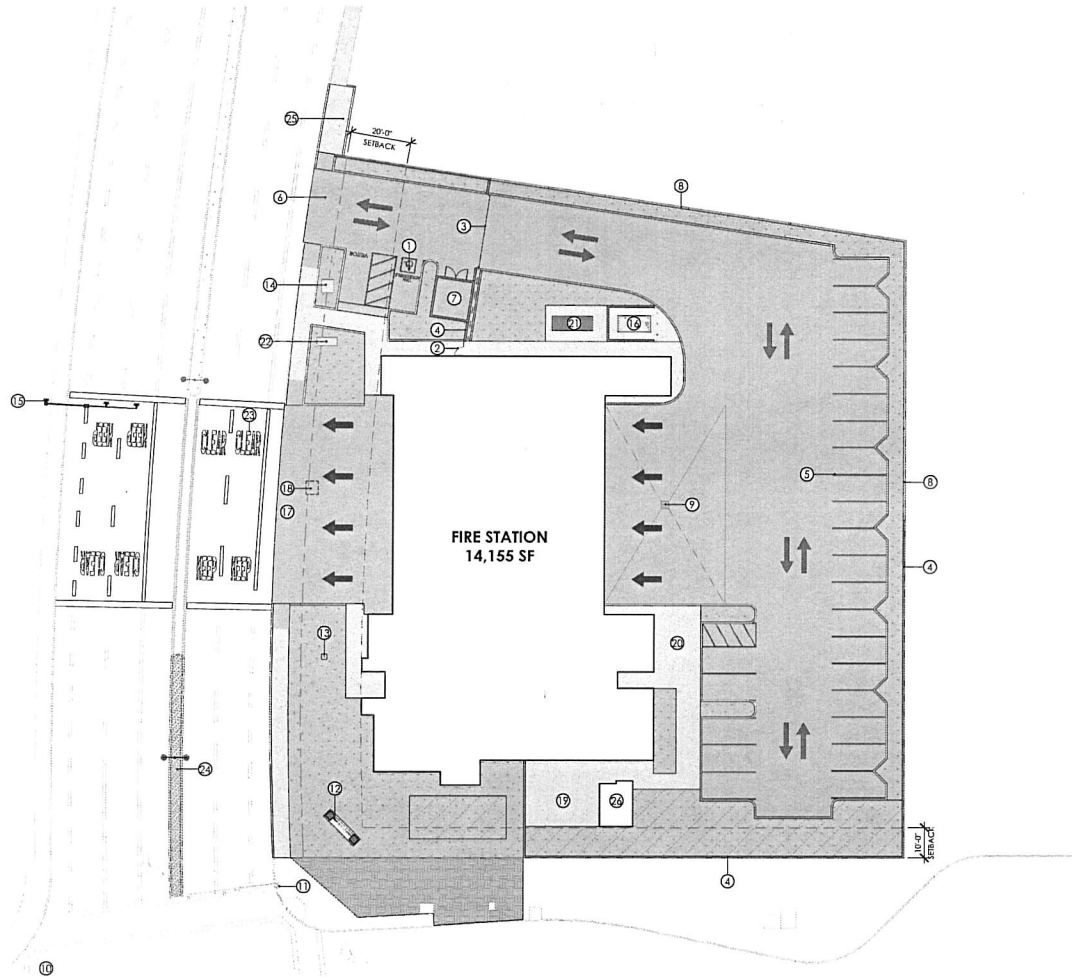
Plastic laminate cabinets to be provided throughout the station for aesthetics and longevity; Kitchen counters to be custom fabricated stainless steel with integral sink; solid surface countertops will be utilized in restrooms, day room, crew office, rip & run, laundry, and fitness room.





**DRAWINGS AND  
OTHER DOCUMENTS**

## SITE PLAN



- ① PUBLIC PARKING (1 STANDARD & 1 ADA)
- ② PERSONNEL GATE
- ③ 6' HIGH ROLLING SECURITY GATE
- ④ MINIMUM 6' HIGH CONCRETE MASONRY SITE WALL
- ⑤ SECURE PERSONNEL PARKING (25 SPACES)
- ⑥ RETURN DRIVEWAY
- ⑦ COVERED CMU TRASH ENCLOSURE
- ⑧ SHOTCRETE RETAINING WALL SEE CIVIL DRAWING
- ⑨ VEHICLE WASH AREA WITH FOX DRAIN
- ⑩ "NO RIGHT TURN ON RED" SIGN AT INTERSECTION
- ⑪ EXISTING TRAFFIC SIGNAL TO REMAIN
- ⑫ MONUMENT SIGN
- ⑬ FLAG POLE
- ⑭ RELOCATED ELECTRICAL EQUIPMENT
- ⑮ EMERGENCY TRAFFIC BEACON
- ⑯ COVERED FUEL TANK
- ⑰ RESPONSE DRIVEWAY
- ⑱ RELOCATE EXISTING ELECTRICAL EQUIPMENT
- ⑲ PATIO
- ⑳ FITNESS PATIO
- ㉑ EMERGENCY GENERATOR
- ㉒ FIRE SERVICE BACKFLOW PREVENTER
- ㉓ EMERGENCY VEHICLE TRAFFIC STRIPING TO BE COORDINATED WITH MISSION VIEJO TRAFFIC ENGINEERING DEPARTMENT
- ㉔ OPPORTUNITY FOR FUTURE PLANTED MEDIAN AND BELL STREET LIGHT
- ㉕ RELOCATED BUS STOP
- ㉖ EXTERIOR EGRESS STAIR

## LEGEND

- PROPERTY LINE
- CONCRETE WALKWAY AND PATIO
- CONCRETE DRIVEWAY
- DETECTABLE WARNING SURFACE
- PLANTED STORMWATER BASIN, SEE CIVIL AND LANDSCAPE PLANS
- ROCK MULCH WITH LOW-WATER PLANTING AND TREES, SEE LANDSCAPE PLAN
- OFFSITE ENHANCED CORNER PLANTING, SEE LANDSCAPE PLAN
- ← ONE-WAY TRAFFIC
- ↔ TWO-WAY TRAFFIC

SCALE: 0 10 20 40 80  
1" = 20'-0"



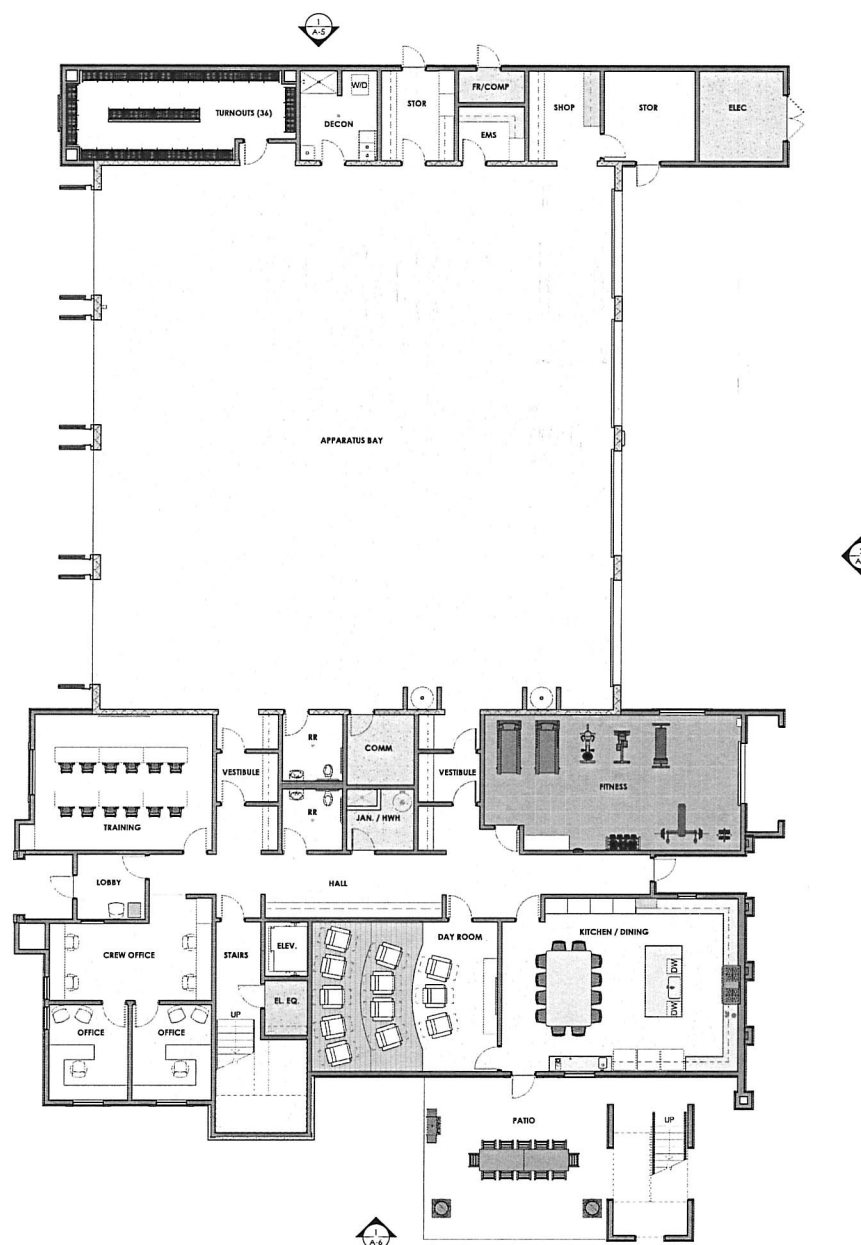
**ORANGE COUNTY FIRE AUTHORITY**  
**MISSION VIEJO FIRE STATION 24**

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# FLOOR PLAN - LEVEL 1

A-2



ROOM NAME	NET AREA
LOBBY	78 SF
HALL	610 SF
CREW OFFICE	250 SF
OFFICE	132 SF
OFFICE	133 SF
STAIRS	244 SF
ELEV.	41 SF
EL. EQ.	41 SF
DAY ROOM	488 SF
KITCHEN / DINING	703 SF
FITNESS	600 SF
VESTIBULE	53 SF
COMM	84 SF
JAN. / HWH	73 SF
RR	65 SF
RR	71 SF
VESTIBULE	52 SF
TRAINING	433 SF
APPARATUS BAY	4935 SF
TURNOUTS (36)	327 SF
DECON	120 SF
STOR	116 SF
FR/COMP	37 SF
EMS	63 SF
SHOP	113 SF
STOR	144 SF
ELEC	133 SF
TOTAL NET SF - LEVEL 1	10141 SF
CORE	885 SF
TOTAL GROSS SF - LEVEL 1	11022 SF
TOTAL BUILDING GROSS SF	14155 SF

## LEGEND

	LUXURY VINYL PLANK
	POLISHED CONCRETE
	SEALED CONCRETE
	RUBBER MAT

SCALE: 1/8" = 1'-0"

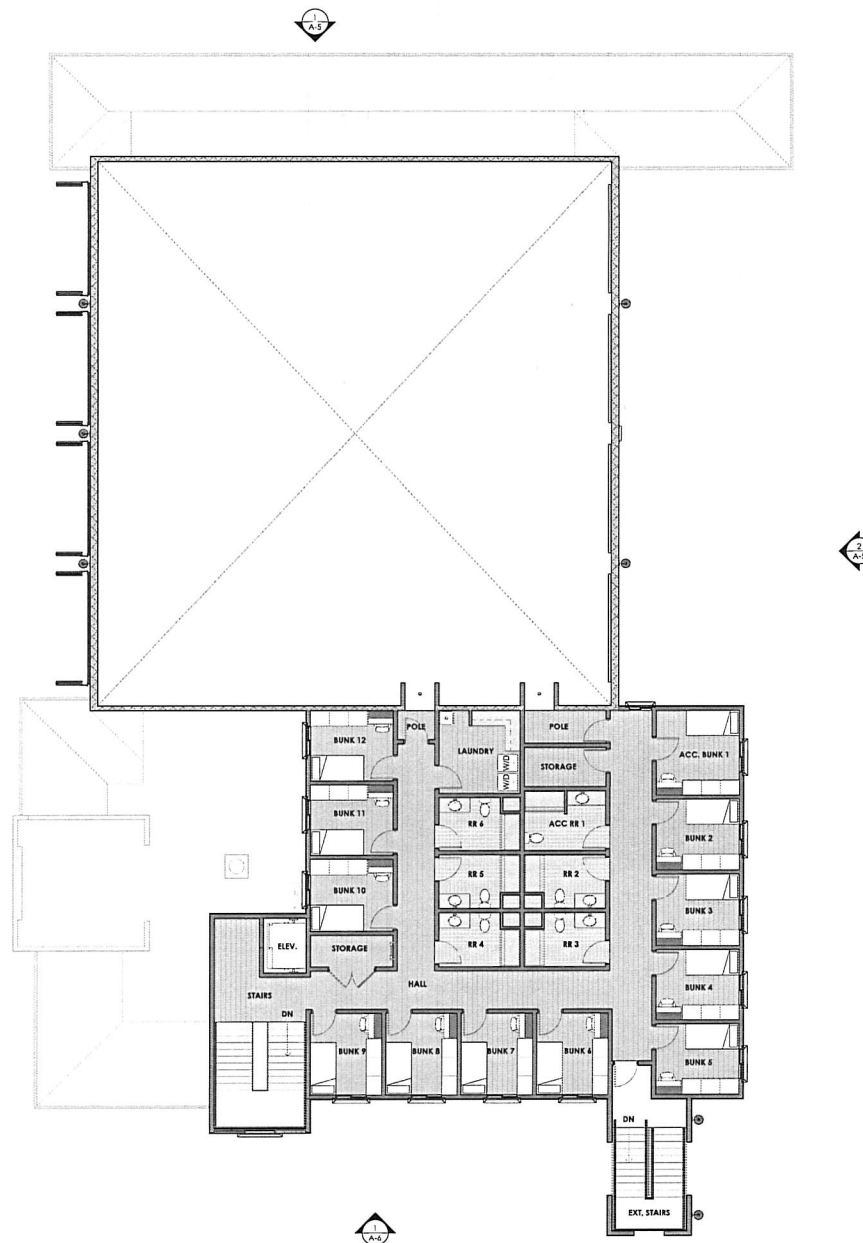


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# FLOOR PLAN - LEVEL 2

A-3



ROOM NAME	NET AREA
ACC. BUNK 1	126 SF
BUNK 2	104 SF
BUNK 3	104 SF
BUNK 4	104 SF
BUNK 5	104 SF
BUNK 6	104 SF
BUNK 7	104 SF
BUNK 8	104 SF
BUNK 9	104 SF
BUNK 10	103 SF
BUNK 11	103 SF
BUNK 12	104 SF
POLE	19 SF
LAUNDRY	120 SF
POLE	48 SF
STORAGE	57 SF
ACC RR 1	85 SF
RR 2	70 SF
RR 3	71 SF
RR 4	71 SF
RR 5	71 SF
RR 6	71 SF
HALL	614 SF
STORAGE	46 SF
STAIRS	121 SF
TOTAL NET SF - LEVEL 2	2730 SF
CORE	403 SF
TOTAL GROSS SF - LEVEL 2	3133 SF
TOTAL BUILDING GROSS SF	14155 SF

## LEGEND

	LUXURY VINYL PLANK
	CERAMIC TILE

SCALE: 1/8" = 1'-0"

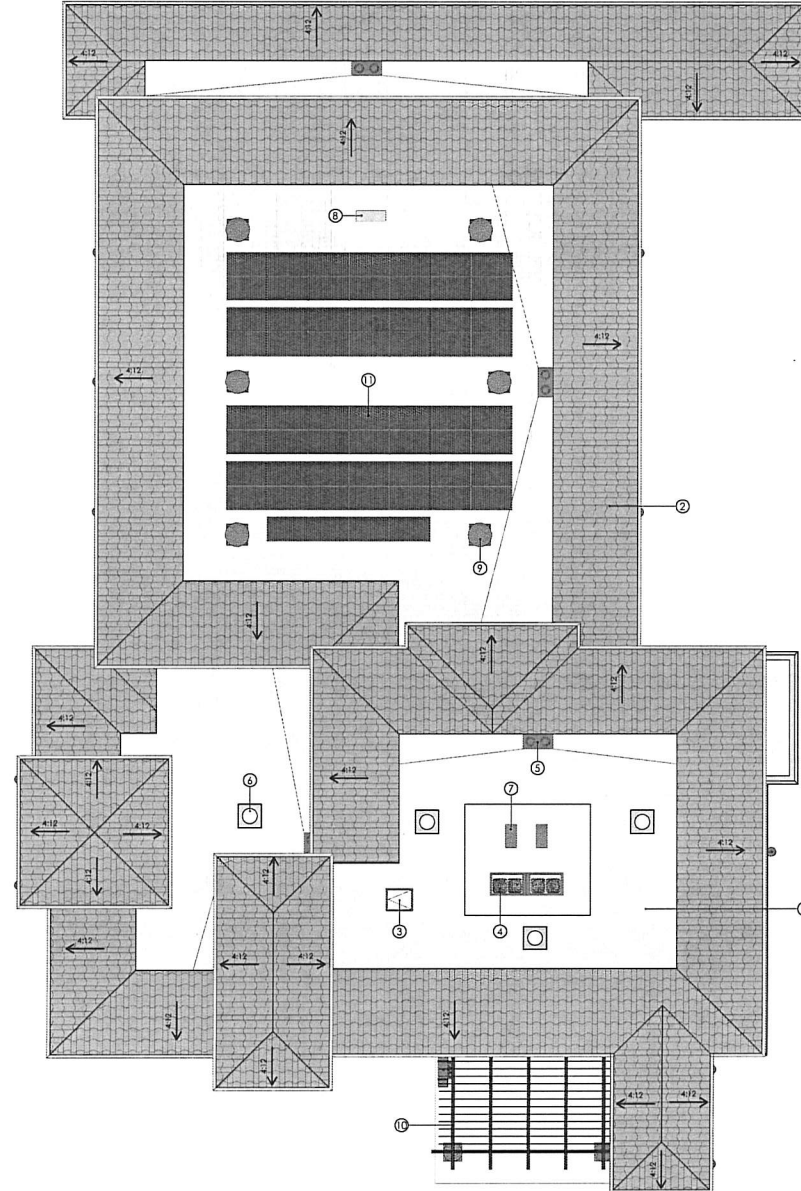


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## ROOF PLAN



- ① TPO MEMBRANE ROOFING, TYP.
- ② CONCRETE TILE ROOFING, TYP.
- ③ ROOF ACCESS HATCH
- ④ VRF CONDENSING UNIT, TYP.
- ⑤ ROOF DRAIN, TYP.
- ⑥ TUBULAR SKYLIGHT, TYP.
- ⑦ SPLIT SYSTEM CONDENSING UNIT, TYP.
- ⑧ PLYMOVENT EXHAUST FAN
- ⑨ APPARATUS BAY EXHAUST, TYP.
- ⑩ TRELLIS
- ⑪ PHOTOVOLTAIC PANELS

SCALE: 1/8" = 1'-0"



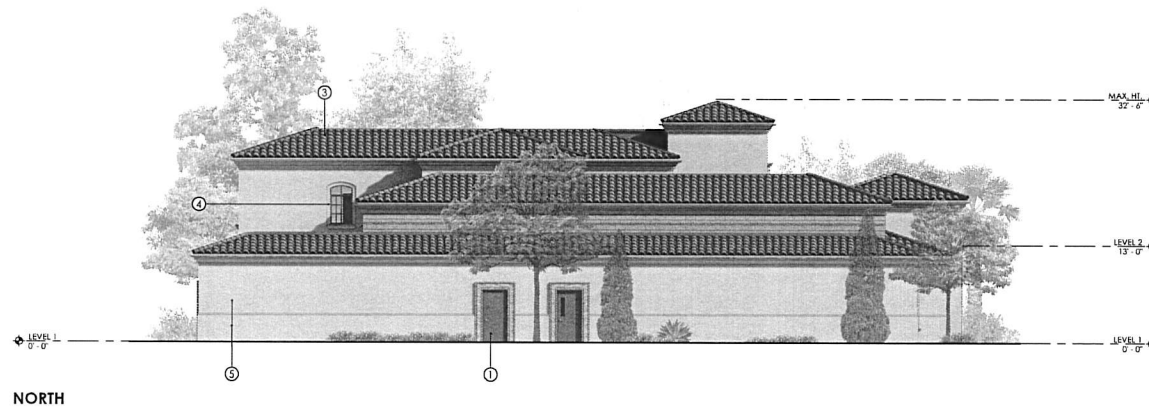
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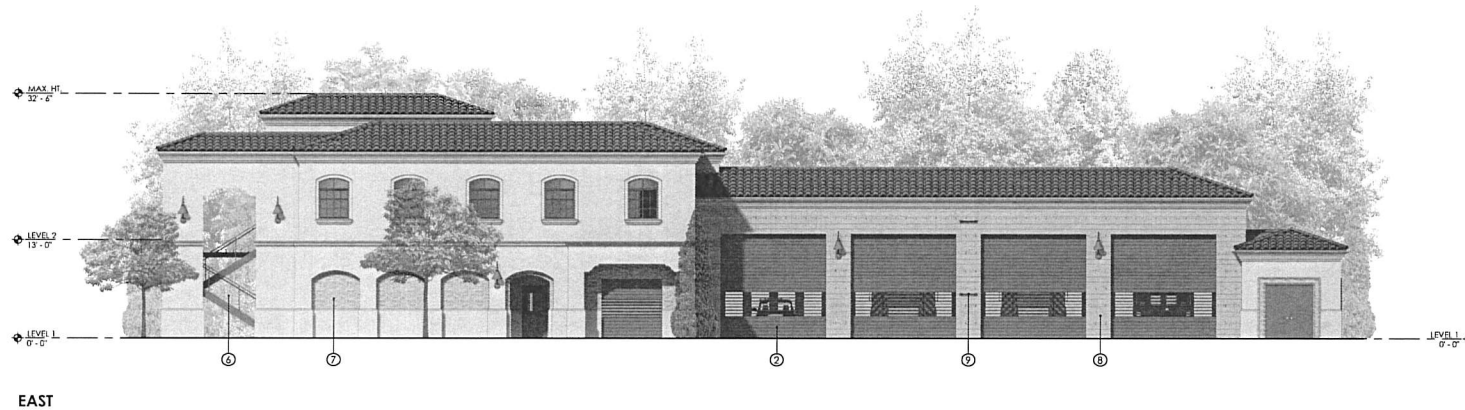
01/13/22

# EXTERIOR ELEVATIONS

A-5



- ① HOLLOW METAL DOORS AND FRAMES, TYP. AT EXTERIOR
- ② OVERHEAD COILING DOORS WITH VISION LITES
- ③ CONCRETE TILE ROOFING
- ④ ENERGY EFFICIENT COMPOSITE WINDOWS
- ⑤ INTEGRAL COLOR STUCCO, TYP.
- ⑥ DECORATIVE STAIR RAILING
- ⑦ BRICK VENEER
- ⑧ CONCRETE MASONRY WALLS
- ⑨ LADDER TRAINING BRACES



SCALE: 1/8" = 1'-0"



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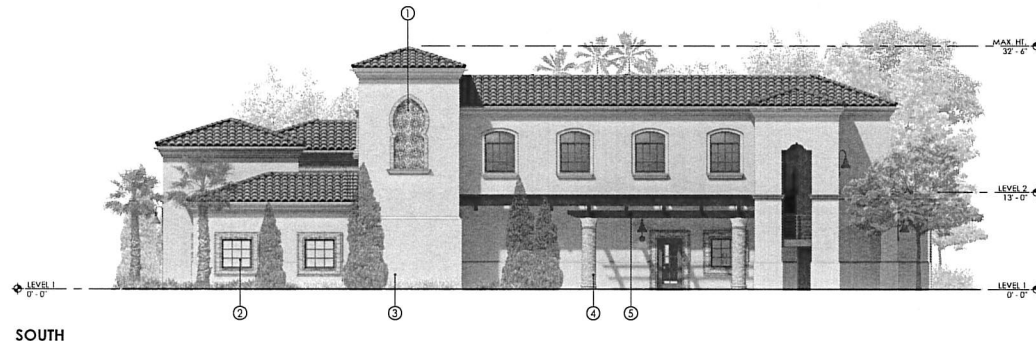
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# EXTERIOR ELEVATIONS

A-6

- ① MOSAIC ACCENT TILE
- ② ENERGY EFFICIENT COMPOSITE WINDOWS
- ③ INTEGRAL COLOR STUCCO
- ④ PRECAST CONCRETE COLUMN WITH BRICK VENEER
- ⑤ TRELLIS
- ⑥ OUTSWING BI-FOLD DOORS
- ⑦ BRICK VENEER
- ⑧ DECORATIVE LIGHT FIXTURE
- ⑨ DECORATIVE STAIR RAILING

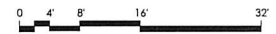


SOUTH



WEST

SCALE: 1/8" = 1'-0"



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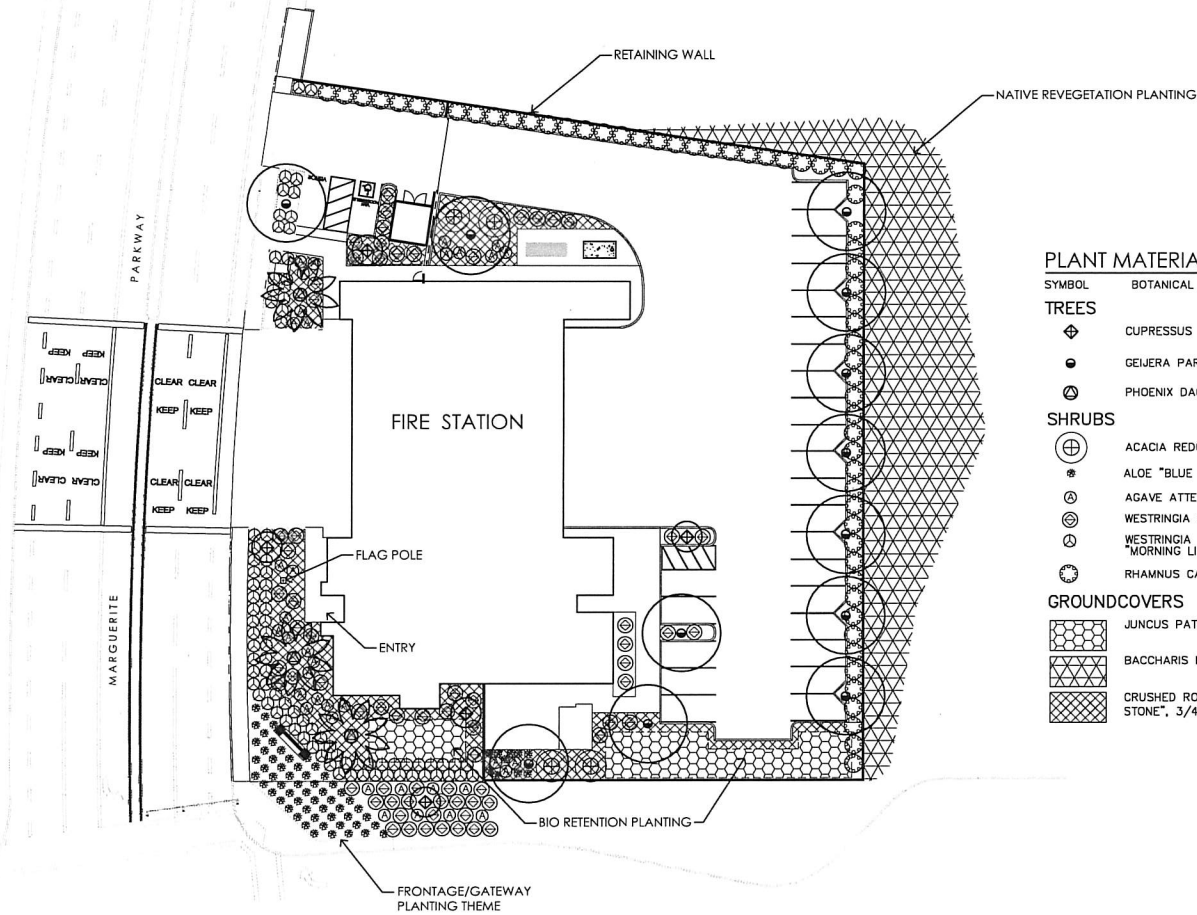
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## PLANT MATERIAL LEGEND - TREE / SHRUBS / GROUNDCOVER

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE CATEGORY
<b>TREES</b>				
⊕	CUPRESSUS SEMPERVIRENS	ITALIAN CYPRESS	36" BOX	LOW
●	GEIJERA PARVIFOLIA	AUSTRALIAN WILLOW	36" BOX	LOW
⊗	PHOENIX DACTYLIFERA	DATE PALM	20' BTH	LOW
<b>SHRUBS</b>				
⊕	ACACIA REDOLENS "DESERT CARPET"	PROSTRATE ACACIA	1 GAL.	LOW
⊗	ALOE "BLUE ELF"	BLUE ELF ALOE	5 GAL.	LOW
⊗	AGAVE ATTENUATA "NOVA"	AGAVE	5 GAL.	LOW
⊗	WESTRINGIA FRUTICOSA "MUNDI"	LOW COAST ROSMARY	5 GAL.	LOW
⊗	WESTRINGIA FRUTICOSA "MORNING LIGHT"	MORNING LIGHT COAST ROSMARY	5 GAL.	LOW
⊗	RHAMNUS CALIFORNICA	COFFEEBERRY	5 GAL.	LOW
<b>GROUNDCOVERS</b>				
⊕	JUNCUS PATENS "ELK BLUE"	SPREADING RUSH	1 GAL.	LOW
⊗	BACCHARIS PILULARIS "PIGEON POINT"	DWARF COYOTE BRUSH	1 GAL.	LOW
⊗	CRUSHED ROCK MULCH WITH BROWN WEED BARRIER BASE, "HORSE CREEK CRUSHED STONE", 3/4" SIZE, 3" DEPTH			

SCALE: 1" = 20'-0"



**ORANGE COUNTY FIRE AUTHORITY**  
**MISSION VIEJO FIRE STATION 24**

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## Exterior Design Aesthetic

Fire Station 24 has been designed to follow the guidelines established for the project, while maintaining the look of the building as an important civic landmark. The design utilizes a modern Andalusian architectural style with complementary building materials that satisfy the aesthetic direction provided by the City of Mission Viejo. The finishes and color palette were carefully selected to maximize the use of low maintenance, durable materials and maintain the appropriate architectural character.

### Civic Presence

We understand the desire of the Fire Authority and the City to have this new station be a beacon for the Mission Viejo community and provide a visual statement at this intersection. This, along with the previously noted functional items, is why we developed the design to place the more visually pleasing two-story portion of the building and the enhanced landscaping on the corner facing the intersection. This provides a softer aesthetic for the corner than the exit drive in the RFP concept design.

### Architectural Style

It is our goal for the fire station to have a strong civic presence that embraces the Andalusian architectural language outlined in the RFP and requested by the City. The monument signage, color selections, and apparatus bays space clearly denote the building as a fire station, while the materiality, building massing, and Andalusian architectural aesthetic is comparable to and fits well within the surrounding neighborhood. The architecturally enhanced public entrance is easily visible and accessible.



### **Exterior Materials**

The exterior material selections include colored concrete masonry in 4" and 8" heights arranged in a linear pattern similar to the Andalusian architecture example provided in the RFP. Integral colored stucco for the walls of the living quarters will be highlighted with the use of battered wall and cornice profiles to give the building a rich, ornate appearance. Brick veneer will be used to accentuate openings in the façade and compliment the masonry utilized on the apparatus bay. Cool colored concrete tile roofing is not only durable, it provides texture and an aesthetic quality often seen in Andalusian buildings. The use of brightly colored mosaic accent tile provides small bursts of color to create interest and accentuate the architectural style of the fire station.

### **Functional Design**

All firefighting operations are contained on the ground floor. The day room, kitchen, dining room, fitness room, and outdoor patios are positioned for privacy and screened with site walls. The patio off the kitchen and dining room will be shaded by a trellis. More private by nature, the second floor is comprised of the living quarters for fire personnel inclusive of dorm rooms, single occupancy crew restrooms, laundry, and storage rooms. This proposed design also moves the bunk rooms further from the busy street. Two staircases, one interior and one exterior, provide code compliant ex-iting from the second floor as well as enhance the architectural composition of the building.

### **Interior Design Aesthetic**

The interior design of the building addresses safety and functionality requirements while providing a modern, comfortable atmosphere for the fire fighters. Materials have been selected for their aesthetic quality as well as their durability and ease of maintenance. The material and color palette proposed will complement the exterior aesthetic as well as meet the latest Fire Station and Facilities Design Standards. Final selections will ultimately be developed in collaboration with the Orange County Fire Authority.

### **Stakeholder Consensus**

Our Team understands the importance of the exterior look of the building and how it fits within the Mission Viejo community. We are well versed in working collaboratively with public entities, HOA's, and local community groups to develop designs that fit within and respect the immediate area and its neighbors. We take the approach that the inside of a public facility belongs to the occupants, and the exterior of the facility belongs to the community.



### Building Framing

This is a two-story fire station with flat roofs. The roof framing above the Living Quarters/Administrative area will be framed with wood TJI type I-joists spaced at 24-inch o.c. The roof framing will be supported by wood beams and 2x6 wood stud walls. The 2nd floor of the Admin./Living area will be 1-1/2" gypcrete over 3/4" plywood supported by 16" TJI joists at 16" o.c.

The roof of the Apparatus area will be framed with wood TJI type I-joists (20 inch deep) spaced at 24-inches o.c. The main support system will be 68'-0" long tube steel trusses spaced at 17'-0" o.c.

The lateral framing system for the building will be 8" reinforced masonry walls and 12" reinforced masonry piers/lintels at the Apparatus area and wood framed shear walls with plywood sheathing at the 1st and 2nd floor of the administration/living quarters.

### Building Foundation

The foundation will consist of reinforced concrete slabs-on-grade with continuous perimeter edge and interior bearing/ shear wall footings (24" wide x 24" deep) and individual spread footings at columns and line footings at interior bearing and shear walls. The slab in the living quarters/administration/fitness area will be 5-inch thick and the slab in the apparatus area will be 8-inch thick.

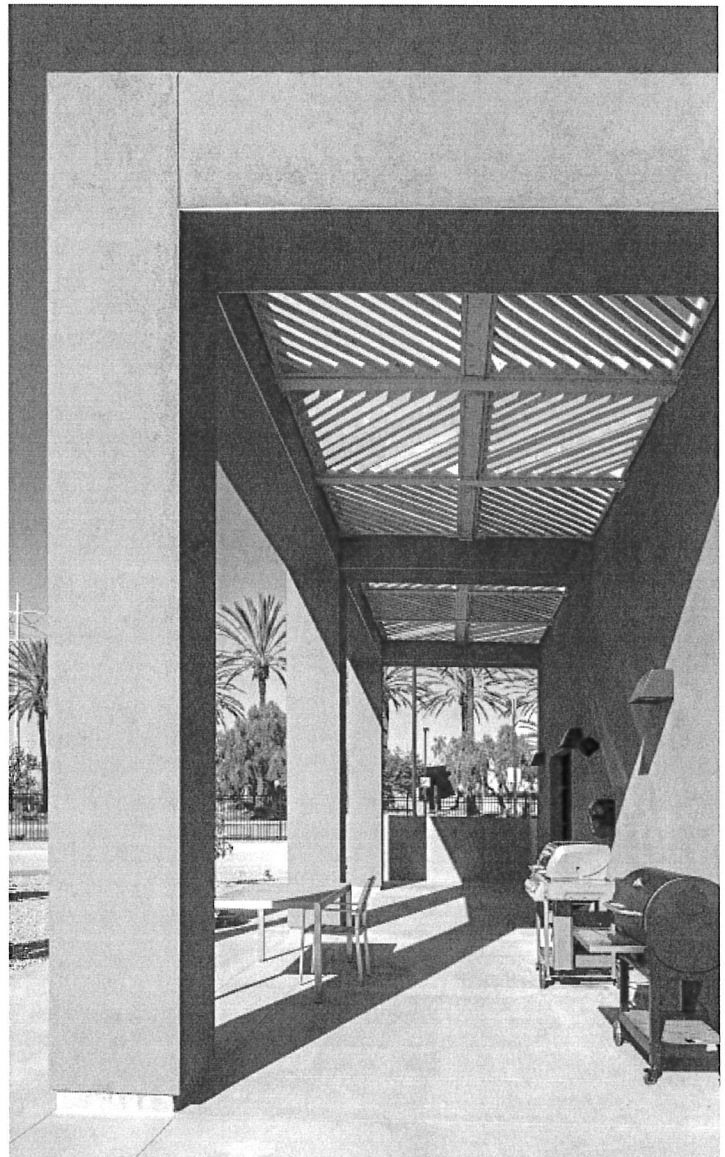
### Design Codes

Building will be designed to the latest adopted code, California Building Code (CBC), 2019 Edition.

- Seismic and Wind design will conform to 2019 CBC and ASCE 7-16 with Use Occupancy Category IV (IE = 1.5)
- Seismic Design Category is D
- Basic Seismic Force Resisting System: Special Reinforced Masonry Shearwalls at Apparatus area and Wood Shearwalls at other areas.
- Roof Live Loads: Use 20 psf
- Floor Live Loads: Use 50 psf

### Special Inspections

All Concrete including Foundations and Slabs, Masonry, and all Steel Field Welding will require Special Inspection.



**Mechanical Systems**

The indoor design conditions for all spaces in the building shall be based upon ASHRAE standards, anticipated occupancy and ventilation rates as prescribed per the most current version of California Mechanical Code and Title-24 Standards. In general, occupied spaces shall be designed to 70 degrees Fahrenheit cooling and 68 degrees Fahrenheit heating. Equipment rooms shall be designed to 72 degrees Fahrenheit cooling. No humidity control will be provided.

The outdoor design conditions to be used in this project are based on ASHRAE 0.5% annual cooling dry bulb and mean coincident wet bulb temperatures, and the 99.6% heating dry bulb temperature.

The HVAC system serving the building will be designed observing the following:

- 2019 California Mechanical Code
- 2019 California Energy Efficiency Standards (Title-24)
- ASHRAE 90.1- 2019
- ASHRAE 62.1- 2019
- ASHRAE 55.1- 2019
- ASHRAE Handbook of Fundamentals
- NFPA 30 for Emergency Generator
- 2019 California Fire Code
- 2019 California Green Code
- SMACNA

The project includes the design of the heating, ventilating, air conditioning (HVAC) system required to control and maintain space indoor conditions appropriate for occupancy during the cooling and heating seasons at the OCFA Fire Station No. 24 located in Orange County, California. This system is comprised of HVAC equipment, air distribution, and controllers as described in the paragraphs below.

All spaces within the fire station shall have either conditioned ventilated air, ventilation only, or exhausted. All HVAC systems to maintain minimum 70°F cooling and 68°F heating set point and will include low ambient control systems for cooling modes.

The Air Conditioning base system shall be high-efficiency Variable Refrigerant Flow (VRF) system using indoor fan coils and remote condensing units located away from quiet spaces such as dormitories, day rooms, dining rooms, study rooms, and offices. The Air Conditioning alternative system may be gas heating/electric cooling package units with economizers on all units serving common areas.

All VRF/split HVAC equipment exposed refrigerant piping shall be metallic aluminum jacket cladding and fittings. High efficiency thermal insulation shall be installed to ASTM and California Mechanical Code standards and shall minimize any insulation lining in the air stream.





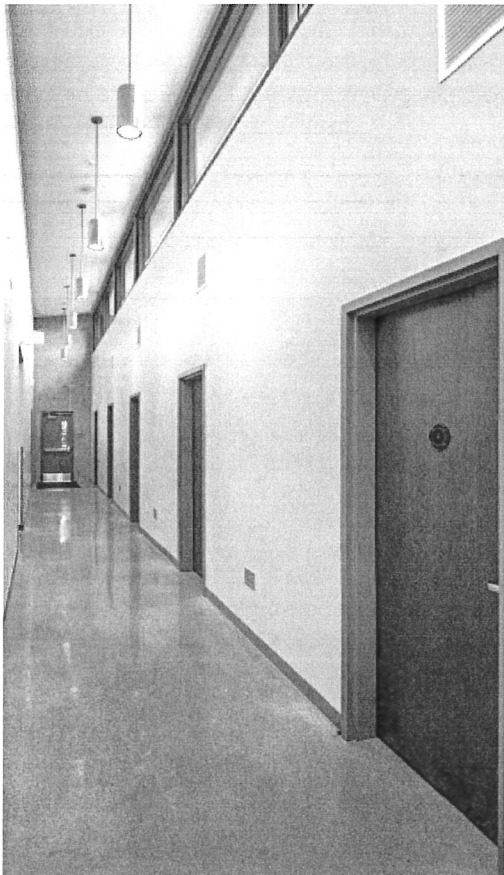
## MECHANICAL & PLUMBING BASIS OF DESIGN

Dormitory spaces shall be on a system that allows independent control of each room. The common living areas shall have a separate air conditioning unit. The office area shall have a separate air conditioning unit and a specific air conditioning unit will be provided for the Fitness Room. Kitchen exhaust for the hood over the stove (residential type) and make-up air.

The Elevator Machine room and Telecomm room shall be provided with individual 24-7 cooling unit systems separate of adjoining hallway or office area to maintain minimum 72°F cooling set point. Systems shall be equipped with low ambient controls. Make-up air will be provided as required at the Compressor and Hot Water Heater Room, forced air matched volume exhausted. Exhaust provided for the laundry area, turnout area, bathrooms, and electrical rooms.

Unit heaters will be provided for the Apparatus Bay. Plymovent Vehicle exhaust for apparatus bay. System will include rails, snorkels, fire truck tailpipe connections, fan, and controls. General Ventilation system for the apparatus bay compromised of louvers and an exhaust fan. Apparatus Bay general exhaust system to have CO/NO2 controls.

The location of outdoor condensing units shall be sound sensitive to site requirements. EMS controls for HVAC system with remote monitoring capabilities will be provided. All refrigerant piping, ductwork, distribution, controls and test and balance to ensure a complete and operational system. Mechanical outside air provisions for A/C units shall maintain positively pressurized conditioned spaces. The project shall employ energy savings equipment and exhibit design features that will reduce energy consumption throughout the life of the building. The design shall encompass the goals of sustainability, reduced operating costs, and a healthy, productive workspace.



### HVAC Equipment

The HVAC equipment to be installed as part of this project are selected based upon individual controllability and efficiency and will be comprised for the following systems:

Comm Room & Elevator Equipment Room: Individual Split system air conditioning (cooling only) system with the outdoor unit to be installed on the Roof. The indoor unit will be installed inside the building (in the Comm Room and Elevator Machine Room above entry door) with refrigerant pipes connecting it to the outdoor unit.

Occupied Conditioned Areas - Base System: Variable refrigerant flow (VRF) system, which will be comprised of indoor fan coil units and ceiling cassettes with filter boxes, connected to one or more centralized outdoor units.

The indoor units will be connected to the centralized outdoor roof-mounted units via refrigerant piping. Among other features, the VRF system has the capability of providing simultaneous heating and cooling as demanded by the individual zones of the building. Outside air will be provided to the indoor fan units by booster fans or DOAS unit.

Occupied Conditioned Areas - Alternate System: High Efficiency gas heating/electric cooling package units with low ambient controls and economizers.

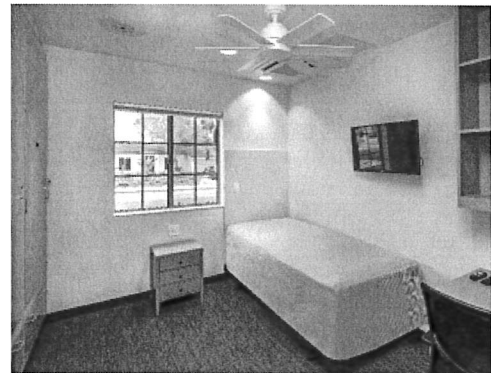
All mechanical equipment serving occupied areas shall be provided with Merv 13 filters.

### **Air Distribution System**

The air distribution system associated with HVAC equipment will be mainly comprised of sheet metal round/rectangular ductwork, air devices (diffusers and grilles), and accessories (such as dampers, louvers, flexible duct, flexible connections, etc.). The ductwork layout will be installed and supported following the design procedures outlined by ASHRAE and SMACNA. Balancing dampers will be incorporated to ensure proper air balance in the spaces. Aluma flex duct is not allowed.

### **Apparatus Bay Area**

Ventilation system will be provided by roof exhaust fans and intake through intake hoods or louvers. Exhaust and make up air shall be provided for Decon, EMS Storage and Turnout Area adjacent to Apparatus Bay. Exhaust air fans will also be installed to discharge environmental air to outdoors, to properly ventilate spaces, and to maintain the proper area pressurization. All areas adjacent to apparatus bays shall maintain positive pressurization. Dedicated vehicle tail piece exhaust shall be provided for apparatus bay and shall include all rails, snorkels, connections, fan, and controls. All HVAC systems selected will be designed as mandated by the standards mentioned above and according to all code and local jurisdictional requirements to ensure complete, operational, and balanced system.



### **Control System**

The operation of the HVAC system will be controlled by an electronic control system that will allow the scheduling and adjustment of space temperature set points. System will be equipped with remote monitoring capabilities from a centralized location and include the following:

- The central or main controller shall oversee the operation of all HVAC units.
- Split system units will be controlled by dedicated/individual electronic controller with the ability to implement the control strategies mentioned above.
- Dedicated exhaust fans serving equipment rooms will be controlled by space thermostats.
- Exhaust fans serving the Turnout Rooms will run at all times.
- Exhaust fans serving individual/single restrooms will typically be controlled through corresponding space wall switch or EMS timer controls.
- Kitchen exhaust fan will be controlled by manual switch on hood.
- Window/Door HVAC interlocks shall be provided for all operable windows and hold-open doors.
- Anticipated system type is the Carrier i-View controls systems. Team will coordinate with the Fire Authority to have system communicate with their existing Energy Management System through appropriate BacNet interface devices.

### **Test & Balance**

At the completion of the installation, the HVAC system will be tested and balanced according to approved standards such as NEBB and/or AABC. In addition, the performance of the HVAC system will comply with the 2019 California Green Building Code. Test and Balance contractor shall be a third-party contractor.



	<p><b>Plumbing Description</b></p> <p>The project includes the design of plumbing systems required for the operation of OCFA Fire Station 24. The systems are comprised of cold water, hot water return, waste and vent, natural gas, condensate, sand oil waste, storm drain, compressed air, and all associated supports, valves &amp; equipment to ensure a complete and functional system.</p> <p>The Plumbing system serving the building will be designed observing the following:</p> <ul style="list-style-type: none"><li>• 2019 California Green Building Code</li><li>• 2019 California Plumbing Code</li><li>• 2019 California Building Code</li><li>• 2019 California Building Energy Standards for Residential and Non-Residential Buildings (Title 24)</li><li>• IAPMO Installation Standards</li></ul>	<p><b>Plumbing Fixtures</b></p> <p>Plumbing fixtures will comply with maximum flow requirements per CAL Green. Fixtures include flush valve water closets, flush tank water closets, lavatories, kitchen sink, showers, mop sinks, wash box at the clothes washer, and hose bibs along the exterior walls and apparatus bay. Kitchen shall be equipped with a stainless steel integral large, 12" deep, double compartment sink.</p> <p>Floor drains will be provided in toilet rooms, laundry rooms, and where required per code. Floor sinks will be provided at the air compressor, water heater, and ice machine.</p> <p>A hub drain shall be provided at the base of the fire riser. Heavy duty floor drains or trench drains shall be provided in the apparatus bay and shall drain to a sand-oil interceptor prior to connection to the site sewer system.</p>
	<p><b>Plumbing Systems</b></p> <p>Plumbing systems will consist of natural gas, domestic hot and cold water, compressed air, condensate, sand-oil waste, storm drain and sanitary waste and vent systems.</p> <p>The building drain will connect to the sewer main serving site. A water stub out will be provided for the refrigerators and ice makers. Gas for the range, water heater, clothes dryers, and barbeque grill will be provided.</p> <p>Compressed air for shop air usage and apparatus bay will be provided by an air compressor with an air dryer, filters, oil separator and a vertical receiver tank.</p> <p>A sand-oil interceptor will be provided for the drains in the apparatus bay. Systems selections are predicated upon performance, efficiency, and reliability.</p>	<p><b>Hot Water System</b></p> <p>The hot water system shall be located on the first floor and hot water shall be circulated by means of an in-line circulating pump. System shall comply with the following requirements:</p> <ul style="list-style-type: none"><li>• Centralized tankless unit.</li><li>• System shall be protected with an expansion tank and a thermostatic mixing valve (ASSE certified) to limit hot water temperature supply to a maximum of 120°F.</li><li>• Water heater shall be set at 140°F and provide with thermostatic mixing valve.</li><li>• All hot water and recirculating piping shall be insulated per current Title-24 requirements.</li><li>• Kitchen insta-hot booster heater shall be provided.</li></ul>

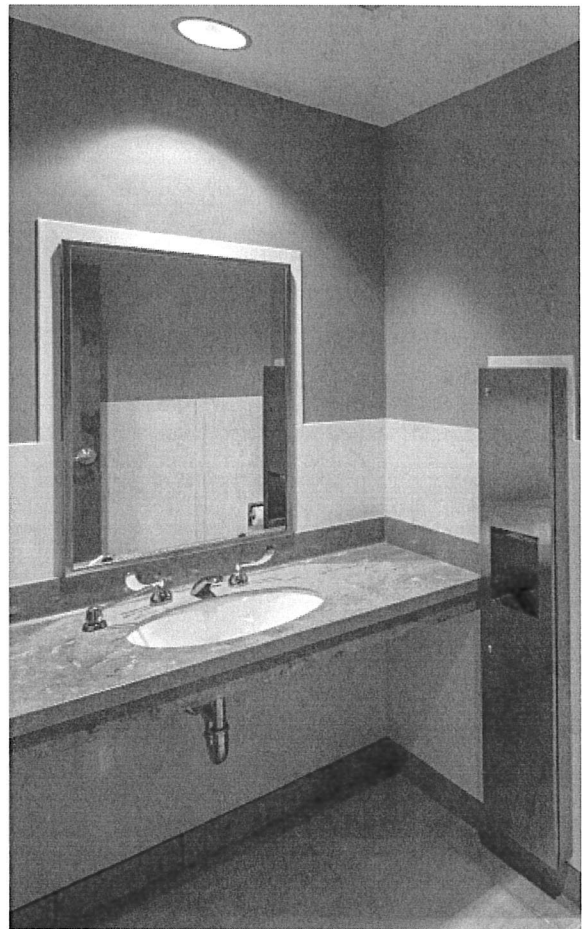
### **Water Supply & Distribution System**

The potable water system shall be Type L copper above grade and Type K below grade. A water meter and backflow preventer shall be installed and coordinated with the project civil engineer. Supply pressure shall be designed to remain between 30 and 80 PSI. Maximum pipe velocities shall be as follows:

- Cold: 8 fps
- Hot: 5 fps
- Recirculation: 2 fps

System shall include the following:

- Garden hose bibs will be provided at a minimum on all four sides of the building and at patio area.
- Roof top hose bibs for periodic maintenance of clean HVAC units shall be provided above the Apparatus Room and above the living/office areas.
- The ice machine, kitchen main sink and coffee maker shall be equipped with a filtered water connection.
- The refrigerators shall each be equipped with a water connection with wall shutoff valve.



### **Storm Drainage System**

Storm drainage system shall be sized for 2.0 in/hr rainfall per Chapter 11 2019 California Plumbing Code.

Roof Drains for flat roofs will be hidden within wall cavities and tied directly underground into the storm drain system. Flat roof drain and overflow component strainers shall be metallic. Overflow drains will be hidden within wall cavities and deposited per code onto hard scape in a visible location. Pitched roofs will be drained to an exposed gutter and downspout system. Down spouts shall be metallic in composition.

### **Drainage System**

PVC piping shall be used for sanitary and storm water drainage piping located within the building envelope. All sanitary horizontal piping runs shall be provided with clean-out access ports for servicing with drain-cleaning equipment and include the follow-ing requirements:

- Waste line serving apparatus bay shall be equipped with sand-oil intercep-tor. Apparatus Bay shall include the heavy-duty area drains or trench drains and minimum 2 hose bibs located inside the apparatus floor.
- Sand/oil clarifier shall be provided on the discharge side of Apparatus Bays' drains. Size and quantities shall be for appropriate drainage.

**Gas System**

Gas piping shall be provided from the main service entry location to all gas utilizing fixtures and equipment for the building including, but not limited to water heater, oven, dryers, HVAC equipment and site BBQ. System shall include/comply with the following requirements:

- Pressure regulators shall be furnished as required.
- Gas will be distributed in Schedule 40 black steel piping with threaded malleable iron fittings.
- Solenoid valves shall be furnished for emergency shut off to all gas utilizing cooking equipment.
- Patio areas will be equipped with a gas stub-out with gas cock for a BBQ, although BBQ will not be a built in unit per RFP directives.
- Natural gas shut off valves, dirt legs, testing and flexible connections.

**Condensate Waste System**

A condensate drainage system shall be provided for all HVAC and condensing equipment via insulated Type M copper piping (insulated). Connections to the units shall be trapped and vented. The system shall discharge to approved receptors.

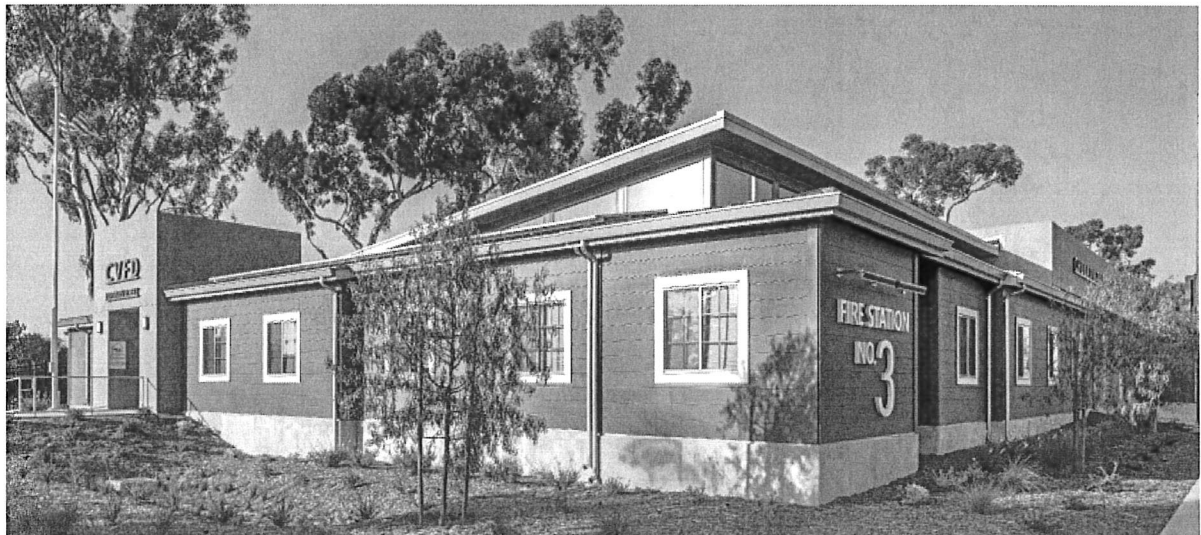
**Compressed Air System**

Air Compressor shall include the following: an ASME certified vertical tank mounted air compressor (140 PSI minimum) complete with pressure regulator and automatic condensate drain. All compressed service air to be filtered. Unit shall be Ingersoll Rand, 140 gallon tank with Bleed.

Apparatus bay shall have a minimum of eight (8) compressed air outlets.

**Fuel Tank and Dispensing System**

Provide and install all components to ensure a fully functional system to support fuel fill and generator support. System shall include an above ground fuel dispensing tank with City approved card reader and shall integrate with building communications systems.



### Design Criteria

- CEC: California Electrical Code 2019
- CEC: California Energy Commission T-24 2019
- IESNA: Illuminating Engineering Society of North America
- NFC: National Fire Codes
- NFPA 70: National Electrical Code Handbook
- OSHA: Occupational Safety and Health Association
- UL: Underwriters' Laboratories, Inc.

### Design Approach

The Fire station building electrical system will be served from a new pad mounted service transformer located Marguerite Rd. on the project site. It is anticipated that this service transformer will be fed from an existing primary circuit previously feeding the existing transformer.

The existing transformer will be removed, and a utility handhole will be installed to facilitate extension of the primary. 2-5" primary conduits will be extended from the vault to the new pad mounted transformer. From the pad mounted transformer, there will be 4-4" secondary conduits to the service/meter underground pull section.

The station electrical system will include an 800A, 208Y/120V three phase, four wire main service switchboard board. The service switch board will include utility metering, surge protection unit, line side tap for PV system and feeder circuit breakers.

The full electrical system for the new station will be backed up with standby power from a diesel engine generator (to be verified during programming) with an associated above grade mounted 72 hour rated fuel tank. The service will also include an 800A 4-pole automatic transfer switch.

CATV and Telephone system will be fiber. The existing service pedestal located adjacent to the existing transformer will be relocated outside of the new drive isle. 2-4" conduits with pull string shall be provided for ISP cabling. Point of connection and routing will be verified and coordinated with the ISP planner and shop drawings during design.

A code minimum Fire Alarm System will be provided. Pull stations, horns, speakers and strobes will be placed per NFPA 72. The fire alarm control panel will be installed in the main telephone room. The remote annunciator will be installed in the lobby. The Fire Alarm System will be interconnected with the existing base-wide FA systems for reporting and monitoring. A sign will be added for the alarm bell indicating "Fire Alarm."

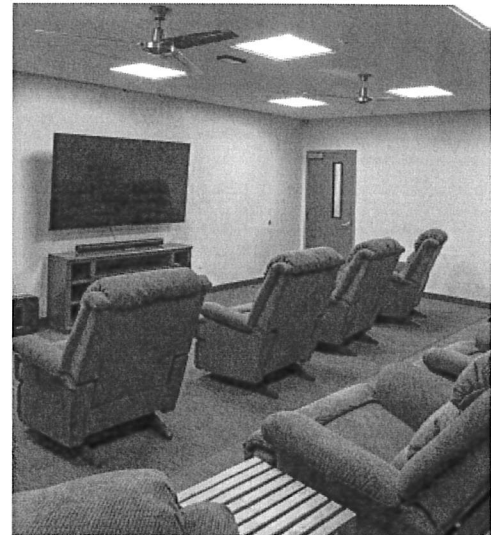


### Power for General Use

Branch circuit panels will be provided for lighting, power, kitchen equipment and HVAC loads with copper bussing. All panels will include bolt-on type circuit breakers. Recessed branch panels will be located in corridors on the first and second floors. Exterior weatherproof GFCI outlets will be located around the building perimeter.

All branch circuit home run wiring for lighting fixtures and outlets will be copper conductors installed in minimum 3/4" conduit. MC cable is anticipated to be utilized for power distribution to lighting and power outlets from boxes with circuit home runs.

All electrical conductors shall be solid or stranded copper, in conduit. Final motor connections will be made with flexible conduit. Room specific power requirements will be provided per the prescriptive requirements of the RFP.



### Lighting

The building interior lighting system for each station will be provided in compliance with RFP and IES recommendations. The lighting calculations will be performed for each different type of space using modern software.

The interior lighting system will include surface mounted, recessed, and direct/indirect LED light fixtures with energy efficient 0-10V dimming modules. Low level, red LED lighting fixtures will be provided in nighttime sleeping areas, including engineer offices, hallways leading to the apparatus bays, and as approved by the fire department. Red low-level lighting shall interface with the alert paging system. Architectural LED lighting fixtures including indirect mounted lights will be provided in the main lobby.

Exterior Lighting System for building façade, outdoor work areas and parking areas will include pole and building mounted LED type fixtures. Concrete pole bases will be a minimum of 18", with steel light fixture poles. (1) Site pole nearest the apparatus bay will be equipped with a 120V receptacle for apparatus charging. Exterior Lighting in select locations can be powered with integral PV.

A red colored light shall be provided at the entrance of the fire station, to be controlled via manual switch and photocell. Path of egress and building exits will be illuminated with lighting fixtures and exit signs supplied from the generator and integral batteries for interior fixtures and Central Emergency Lighting Inverter for exterior fixtures.

Energy saving measures will be used in in this project to design in accordance Title 24 and local ordinances. Systems will include but not be limited to multi-level switching and motion sensors in all areas to include private offices, apparatus bay areas and storage rooms. Light fixtures in open areas will be controlled by multiple day-light sensors. The entire exterior building lighting system will be controlled by a central electronic lighting control system with photocell and time-clock functions. All LED lighting will be provided dimming capabilities in conformance with 2019 Title-24 requirements.

### Grounding

Grounding System will comply with NEC Article 250. The system will include a bounding jumper at the main service panel board. A telecommunication Main Ground Bus (TMGB) ground will be provided in the communications room and will be connected to the building grounding system.

### Low Voltage Systems

Provide MPOE in the tele/data room with a minimum of 4-4 plex receptacles. All systems (I.T., data, security) will be installed in EMT conduit with min. 3/4" conduit size.

The station will be wired for Wi-Fi capabilities, to include conduit and cable for Wire-less Access Points.

2-2" conduits from telecommunications room and weather head shall be provided on the exterior of the building, located adjacent to the antenna mount.



All critical IT and Communications equipment, including City IT, alerting (WestNet) Alarm/ Station Phone System/Data Wiring/IT/Com shall be on UPS. UPS Size and location to be determined in programming.

A WESTNET PA and Alerting system will be provided and installed by Westnet for this station and will include Strobes, Horns, Paging Modules, volume controllers etc. Point of connection for line voltage and interconnection will be provided. The station alerting system is part of FF&E. Conduit for station alerting is included in base price for the station.

### Existing Conditions

Existing development on the site will be removed as necessary to accommodate new station development. We will work with the Fire Authority and HOA to clean up slopes on adjacent property and replant to remove current fire hazard as well as allow for grading & construction of site walls. We have included an allowance of \$120,000 for clearing and re-planting of existing slopes since this cannot be properly quantified during the proposal process.

### Civil Utilities

The site will use the existing domestic water service from the existing 12" water main on the far side Marguerite Parkway. The existing 4" sewer lateral from Marguerite Pkwy will also be utilized. Proposed fire water lines and hydrants will be required to meet the sprinkler system and 150ft hose length coverage of all new buildings. This will include a new 8-inch fire service lateral from the existing 12" water main on the far side Marguerite Parkway, then an 8-inch double detector check assembly (DDCA). From the DDCA one 6-inch fire line to the riser room, and one 8-inch line to the proposed onsite fire hydrant. The Civil Utility Drawings will provide the new wet (sewer / water / storm drain) utility laterals as needed.

### Dry Utilities

The layout of dry (electrical / communication / natural gas) utility relocation and extensions will be addressed on the Site Electrical Plan by the MEP. The MEP Drawings for the dry utilities (telephone / CATV / natural gas / electrical power & lighting) will provide confirmation and support documents that the project can be supported by all existing dry utilities and public services.

### Site Grading

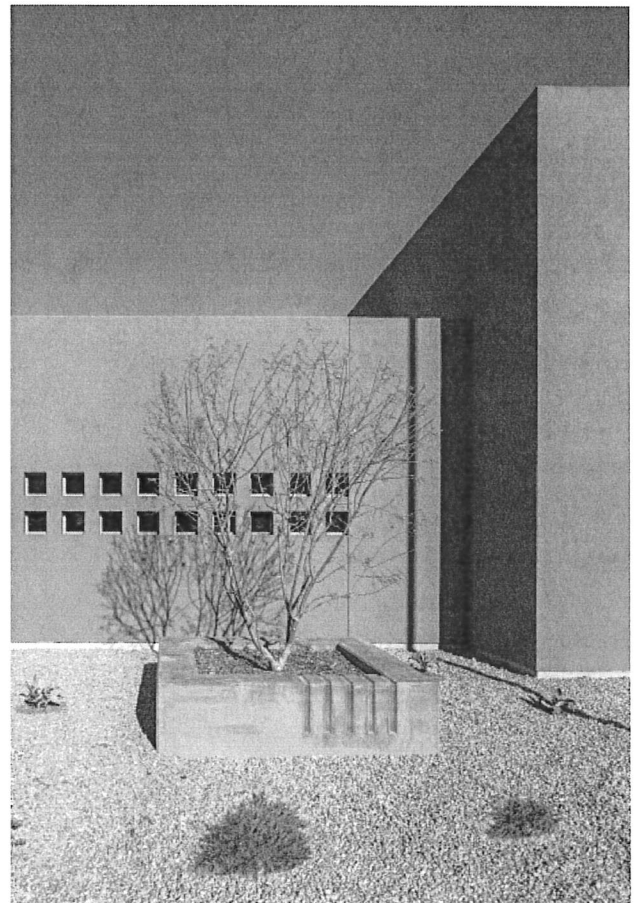
In terms of existing grades, the existing developed site is relatively flat with an average slope of 1% towards to the south with a storm drain inlet that takes drainage west to the curb face. The proposed site will maintain the general existing pad elevation but will expand the developable site area by adding perimeter retaining walls.

This grading will generate export material, and will include re-establishing site surface drainage to the south to proposed storm water quality treatment basins along with basin drains to a parkway culvert to direct flows to the gutter along Marguerite Parkway.

### Storm Water Mitigation

Storm water will be conveyed to storm water treatment basins to percolate, if infiltration is feasible. Any overflow will be directed to the storm drain inlet that will drain to a new parkway culvert that will drain to the street at the south west corner of the site. The overflow pipe will prevent the storm water from reaching the building face in cases of extreme storm or treatment failure conditions.

Typically, a preliminary WQMP and Final WQMP are required since over 2,500 sf of exterior surface is being modified. A SWPPP that addresses storm water quality during construction, will also be required since the proposed design disturbs more than an acre of land.



### Landscape Design Concept

Andalusian landscapes are exemplified by a Mediterranean style of garden design. Design and plant selection is based on attention to climate, soil, and water usage. The concept of hydrozoning or grouping plant material based on solar exposure and similar water needs is fundamental to Mediterranean garden design.

Taking design cues from the historic palace complex, the Alhambra located in Granada, Andalusia, Spain, there are elements of Fire Station 24's architecture and landscape that can express the spirit of the Andalusian style. Relative to the landscape the incorporation of dominant vertical trees such as Date Palms and Italian Cypress will accentuate the station's architecture in the Andalusian style. Another palm species such as a native California Fan Palm may be considered as an alternate. The ground plane will be low water usage/low profile shrubs and groundcovers in a semi-formal pattern to present a civic image to the surrounding community.

Maintenance considerations will be prominent in developing the landscape design. A traditional design theme of lawn with close massing of shrubs and groundcovers is not appropriate for the fire station site. A Mediterranean design theme emphasizing a 50/50 mix of inert groundcovers such as crushed rock and/or decomposed granite with low water use shrubs and groundcovers will complement the neighborhood's visual quality and be a signature landscape within the surrounding Core Area district.

### Irrigation Systems

Consideration will be given to what extent the existing irrigation systems can remain or be upgraded to be compliant with City, County and State current water use irrigation standards. Accurate as-built plans are critical to beginning the design work, assuming plans are available.

Irrigation systems will be designed to avoid runoff, seepage, low head drainage, overspray or other similar conditions onto adjacent property, non-irrigated areas, walks, roadways or structures. Overhead irrigation will not be permitted within 24 inches of an impermeable surface.

The irrigation systems will be automatic and installed to provide coverage for all planting areas shown on the plans. Low precipitation equipment will provide sufficient water for plant growth with a minimum of water loss due to run-off. Irrigation systems will use high quality automatic control valves, timers, moisture sensing devices, and other necessary irrigation equipment.

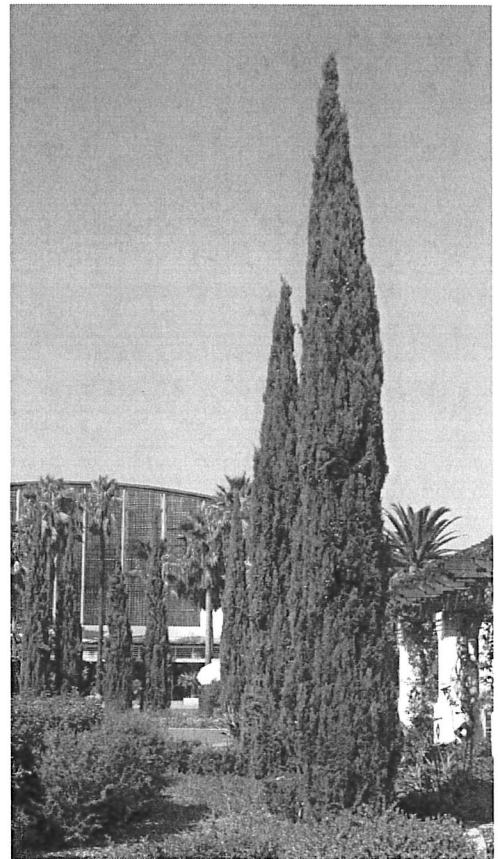
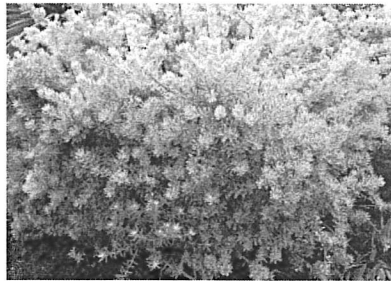
All drip systems will be adequately filtered and regulated per the manufacturer's recommended design parameters. Irrigation components will be of non-corrosive materials. Moisture sensing devices will be installed as required to monitor soil moisture levels. All irrigation improvements will conform with the Fire Authority's standards as well as the County's Water Efficient Landscape Ordinance and Standard Details for installation.



## K8 LANDSCAPING BASIS OF DESIGN

### Planting

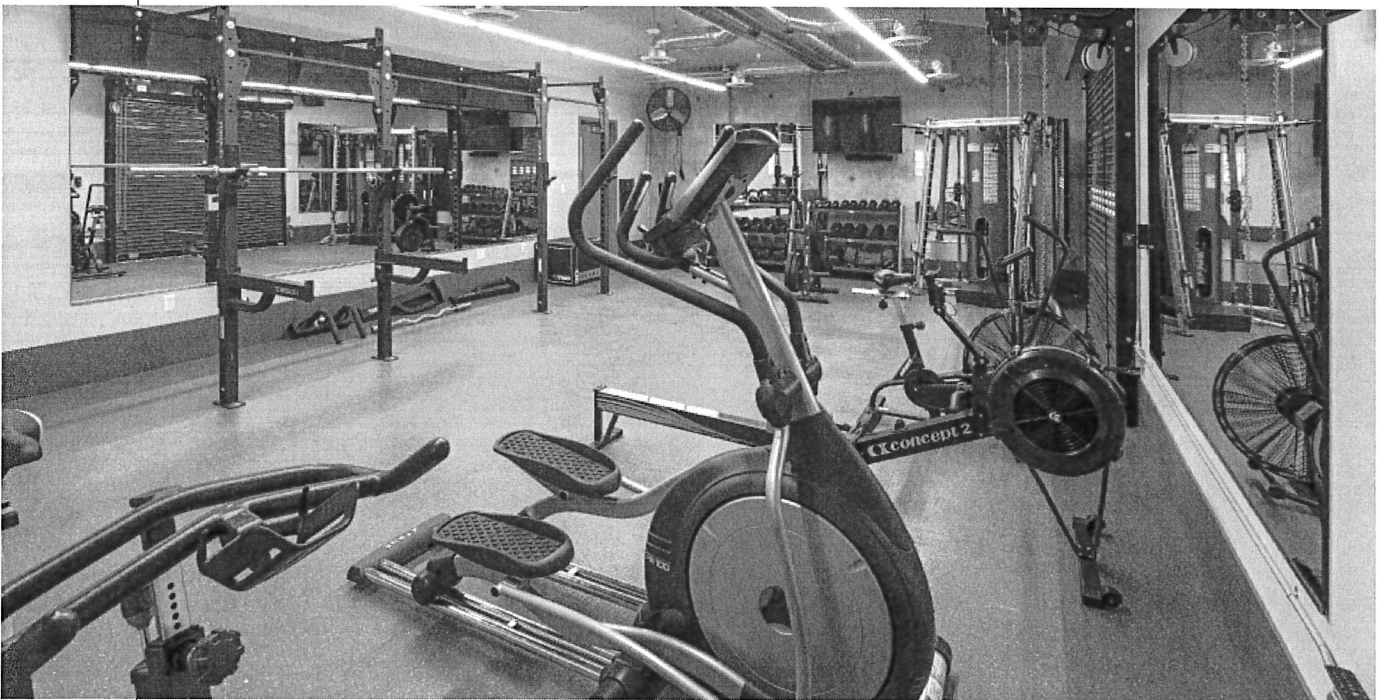
Landscape area plant material will be selected based on their adaptability to the climate, soil, exposure, established water budget and location within the project site. Hydrozoning principals will be observed in tailoring individual irrigation systems to trees, shrubs and groundcovers of similar watering requirements. Low-water use and deep-rooted plants will be installed. Restrictions will be placed on tree placement based on proximity to paving and visibility from truck exiting driveways adjacent to public streets. A minimum ninety day maintenance establishment period for planting and irrigation prior to turnover to the Fire District will be provided.



**We have validated the FF&E program provided in the RFP for all furniture, fixtures, and equipment and confirmed that the level of quality meets or exceeds best practices for public buildings and essential facilities.**

Having completed many Fire Station projects, ECC and JKA have also taken the lead on developing detailed FF&E (Furnishings, Fixtures and Equipment) information for these stations. FF&E often includes not only the furnishings for the station (chairs/tables/desks) but can include beds, pots and pans, office supplies, tools, and equipment. Having knowledge of what is required in an operational fire station, along with years of experience selecting the FFE for these stations, we understand how to select durable, high quality, and cost-effective products.

We have reviewed the FF&E listing included in Section 5F in the RFP. We have utilized this to evaluate the FF&E budget pricing and verified the level of quality necessary for this type of facility is obtainable for the allowance provided. In the design process, we would review these preliminary FF&E selections with the Fire Authority to update the FF&E schedule and pricing. As the design of the station progresses, we will ensure that the FF&E items selected fit within the designed spaces and appropriate utility connections are provided for each item where required. We will also keep an up-to-date inventory of equipment model numbers and availability as we have learned through our extensive experience that manufacturers often discontinue and update their product numbers periodically over the duration of a design-build project.



ECC will coordinate with the Fire Authority and West Net to develop design for the station and finalize budgets as part of the FF&E process. Page 39 of the RFP indicates mechanical controls and software as part of FF&E. We have included the internal HVAC controls required for the local operation of HVAC systems utilizing Carrier i-View system that is compatible with the VRF system. We will work with Fire Authority to coordinate and provide additional controls to connect this system to existing EMS System owned by the Authority as part of the FF&E budget.

We will develop a detailed binder of FF&E items with final selections, finishes, manufacturer options and cost data. Our team will work diligently with the Fire Authority to formulate final FF&E purchase/installation to ensure the station functions efficiently and provides the fire fighters the necessary furnishings & equipment to live comfortably and provide protection to the community.



## **Quality of Design**

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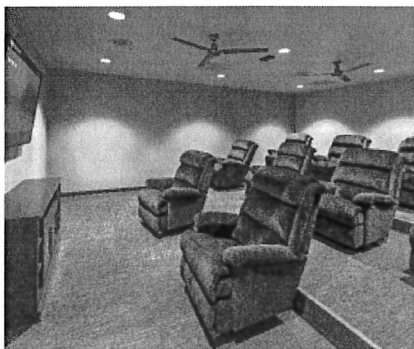
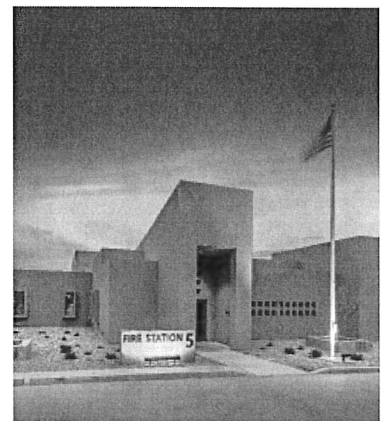
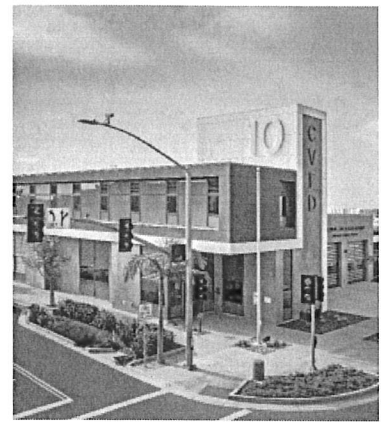
## **L1** FEATURES OF DESIGN EXCELLENCE, INNOVATION, & OCFA COMPLIANCE

### **Enhancing the Exterior Environment**

Careful consideration was given when determining the best placement of the building and driveways on the site. The design team assessed the site constraints and sought to address the City's concerns about creating an attractive and welcoming corner presence for the future Core Area development. Orienting the building with the living quarters located on the south side of the site creates opportunities for visually interesting building massing and a prominent entry point for the fire station off Marguerite Parkway.

This design also moves the egress driveway away from the signalized intersection which in turn decreases the slope of the driveway and increases the safety for exiting fire apparatus. We understand the current exit drive works sufficiently with a two-bay station in close proximity to the intersection. However, when you lay out the new four-bay station there is increased potential for vehicles stopped in the southbound lanes to interfere with safe exiting. Our proposed design stops southbound traffic north of the exit drive to allow for a safer exit path for the apparatus from the station in both directions, but definitely when heading south.

Maximizing the distance of the living quarters from the south property line allows for enhanced landscaping, monument signage, and added privacy for fire personnel. The site design incorporates storm water mitigation measures to ensure minimal impact on the surrounding land uses. Proposed grading at the north and east sides of the site has been designed to minimize the retaining wall height to the greatest extent practical. The stand-by generator has been located away from all occupied spaces to reduce noise impacts to fire personnel and neighboring properties.



### **Enhancing the Quality of the Indoor Environment**

The building has been designed and materials selected which enhance indoor air quality and minimize the spread of infectious diseases often found in Fire Stations. Understanding the critical features of "Hot Zone" design in fire stations is a feature of all our stations, so that we minimize the inherent risk to fire personnel, from the elements they bring back to the station from their calls. This is accomplished by locating certain functions away from the living quarters of the station, creating air lock vestibules between the living quarters and apparatus bay, the use of hard surface materials which are easier to clean, the convenient location of restrooms and hand washing stations to prevent the spread of contaminants, the proper design of vehicle exhaust removal systems, and creating positive pressure ventilation in the living quarters of the station.

Another design enhancement for the living quarters portion of the station is the location of the bunk rooms, which are set back a minimum of 70'-0" from Marguerite Parkway and 50'-0" from the shopping center access road. Placing the bunk rooms on the second level and away from the busy street will provide acoustic separation from traffic noise and reduce disturbances while fire personnel are in their individual dorm spaces. Sound attenuating gypsum board and acoustical insulation for the second-floor demising walls will be provided for acoustic separation within the interior of the fire station.

### 50+ Year Service Life

This fire facility is designed and constructed for a functional service life of 50+ years. We have selected building materials that will allow this facility to serve the Mission Viejo community for the next 50 years plus. Specific materials include, but are not limited to, multi-colored concrete masonry walls at the Apparatus Bay, stucco as the exterior finish material at the two-story portion of the facility; the use of concrete tile roofing; and polished and stained concrete floors throughout the first floor of the facility. Mechanical, plumbing, and electrical equipment and systems were selected for their efficiency and extended service life.

### Minimize Consumption of Energy, Water, and Construction Materials

Lighting systems and mechanical systems described in Section K BODs were selected due to their high efficiency and low operating costs. Plumbing fixtures were selected to minimize water consumption while providing a quality system to meet the service demands of the fire fighters that will occupy the facility. The construction materials selected for this project are extremely durable which will minimize the need to replace and or repair the surfaces which eliminates consumption of future materials as the facility ages.

For the OCFA Fire Station 24, we are specifying a very efficient envelope, fenestration, and heating ventilation and air conditioning

system called a Variable Refrigerant Flow system that includes a single heat pump and two condensing units that are roof mounted. In addition to these inherent efficiencies, we are proposing to install a 22kW roof mounted photovoltaic system to offset a portion of the electrical and mechanical loads on the building. This value-added enhancement is not only a fantastic and environmentally responsible addition to the building, but will result in energy cost savings for the Fire Authority.

EC Constructors takes a proactive approach to their projects for Construction Waste Management by implementing a mandated separation of recyclable materials on site to offset the materials that end up in landfills. In a recent project, we were able to divert almost 75% of the construction debris from landfills to be recycled. Sustainability is of utmost importance to this Design-Build team.

Equally important is the indoor environmental air quality, and even though we are not pursuing certification through LEED, our team implements a Construction IAC management plan on every project. Clean, sustainable materials installed will support cleaner air for the occupants, and it is the responsible way to build. We are taking advantage of natural daylighting via large windows and tubular skylights in the interior living spaces. Natural ventilation will be available through operable windows throughout the station.



The following list of items have been included as Value Added Benefits to the project and exceed the minimum program requirements, demonstrate excellence in design, durability of materials, and optimized life-cycle energy and maintenance costs.

• **22kW Photovoltaic System**

We will be installing roof mounted solar panels as part of this project, which is a minimum 22 kW system. This includes conduit, wiring, and inverters. An additional meter section will be installed in the electrical room.

• **VRF Mechanical System**

Our team has elected to utilize a VRF system for the primary heating, cooling, and ventilation requirements for this project. The initial installation cost of the VRF system is greater than a split system, but the efficiency and operational costs will pay for itself in a very short timeframe, making the overall cost of the system much more advantageous for the long-term life cycle cost of the building. The VRF system also allows for individual control for each bunk room.

• **Multi-Colored Concrete Masonry Site Walls**

We are utilizing minimum 6' high concrete masonry screen walls around entire site for durability, privacy, security, and a cohesive look that compliments the materials of the fire station.

• **Decontamination Room with Shower and Utility Sink**

These elements provide proper decontamination protocol opportunities along with wash areas for larger items like backboards, etc.

• **Stacking Washer/Dryer in Decontamination Room**

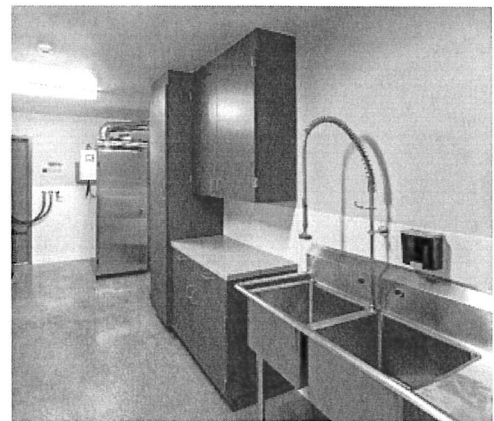
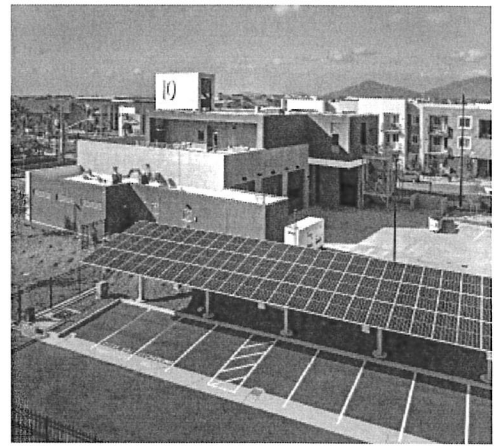
In addition to two sets of stacking washer/dryers on the second floor, we are providing a high-capacity stacking washer and dryer in the Decon room for laundering contaminated items other than turnouts.

• **High Density Concrete Flooring in Apparatus Bay**

We are providing a high density polished concrete finish at the Apparatus Bays utilizing an Ameripolish 3D HS Densifier product. We have utilized this system at several fire stations and have found it to be superior for maintenance and durability.

• **Concrete Masonry Walls at Apparatus Bay**

We have utilized multi-colored concrete masonry walls at the apparatus bay which will provide the Fire Authority 100+ years of low-maintenance performance.



- **Negatively Pressurized Apparatus Bay with Redundant Ventilation System**

In addition to providing direct capture of vehicle exhaust for the apparatus, the apparatus bay will be negatively pressurized to prevent airborne contaminants from entering the living quarters. A continuous ventilation system will be provided with fresh air intake and an exhaust fan. This fan will be variable speed and connected to CO Sensor which will kick the fan to high-speed if needed to evacuate any buildup of particulates in the air.

- **Janitorial Facilities on Both Levels of the Station**

Added convenience for cleaning the station and reduces the spread of contaminants between floors.

- **Enhanced Fitness Room and Patio Size**

A 600 square foot fitness room with overhead coiling door provides ample space for a variety of fitness equipment and indoor/outdoor training activities.

- **Water Bottle Fill Station in Fitness Room**

Allows personnel working out on the ground level to fill their water bottles without accessing the kitchen.

- **Building Information Modeling**

Our team's mastery of BIM from Architect to subcontractor has allowed us to maximize its potential. The Fire Authority will be able to gain the benefit of realistic interior and exterior visual aids during the design phase and post-construction to assist with maintenance and operational needs.





## **Method of Approach**

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## PROJECT SCHEDULE & PLAN

Enclosed is a schedule to demonstrate how we plan to execute the project for design and construction. The schedule illustrates our understanding of the anticipated processes for design collaboration, required approvals, and construction. The schedule anticipates completing a Demo/Grading/Retaining Wall design package for approval to allow for this work to take place concurrent with final design and permitting of the building. The goal being to have a graded pad that can be certified for issuance of the final building permit. We have successfully work with other public agencies to coordinate this effort.

This schedule does not include detailed information for the Temporary Station site. However, this proposed schedule gives the team from Project Kick-off (shown as 3/23/22 in the proposal schedule) to Mobilization to Site (shown as 12/27/22) to complete the planning, design, and set-up of the Temporary Site. This works out to approximately 9 months for this process to take place before the existing station is required to be vacated. We think this is a reasonable amount of time for the project team to complete this effort.

The schedule illustrates the durations anticipated for Schematic Design, Demo/Grading/Site Wall, Design Development, and Construction Documents in a coordinated manner. The schedule anticipates a seven-week process (35 work days) for the team to collaborate and review the plans included in the proposal to complete Schematic Design to move to Design Development. We are currently showing coordination with City Planning Department for the design as part of the Design Development process but we can certainly start that process earlier if desired by the Authority. The goal is to make sure we have sufficient time to vet the proposed design with OFCA to implement and necessary adjustments and then engage the City for their feedback and approvals.

We are not showing anything on the proposal schedule but we understand that we will be working with OFCA to provide appropriate information to engage the HOA for their comments. We will also coordinate with

We understand there is a need to schedule Public Meetings and presentations to Parks & Recreation Commission as well as City Council. These meetings are not currently shown in the proposal schedule but will be inserted once we can sit down and collaborate with City Staff to determine the best times in the design process to hold these important meetings.

The proposal schedule illustrates the same process that was utilized for Stations 5 & 9 as it relates to Design Development and Construction Documents process. We anticipate project review meetings with the City during the DD and CD phase as noted in the RFP. These meetings will be added to the final schedule once we can establish those in conjunction with City Staff. We recommend meeting every other week with City Staff to discuss the design as it develops throughout the DD and even into the early CD process. These meetings help to alleviate potential design changes and allow for adjustments in the design as it progresses rather than after a City Review. These meetings also help make City reviews more efficient as there is continual collaboration through the design process. We are showing three weeks (15 days) for each City review throughout the DD and CD process.

Our proposal schedule demonstrates our understanding of the Building Permit and approval process with City Building Department. We are showing submission of 95% CD for the initial Building Department Review and allowing the four weeks (20 days) indicated in the RFP for initial review and 10 days for subsequent rechecks prior to issue of building permit.



## PROJECT SCHEDULE & PLAN

To meet the overall project schedule, we are showing bidding out the project to establish the GMP upon completion of 50% CD packages. Utilizing the collaborative approach we illustrate for the early design process, we have been successful in bidding out the work at this stage on past projects. By bidding out the work and developing the GMP at this phase of the design, it allows us to meet the RFP schedule for City Council approval of project in February 2020 as indicated in the RFP. Although the GMP is not submitted in December as noted in the RFP schedule, what we have laid out in this proposal schedule for Bidding, GMP, and Subcontracting Process is what developed and implemented with success for Stations 5 & 9. We are collecting subcontractor bids in early January and giving the Project Team six weeks (30 days) to evaluate the bids and negotiate the final GMP to be prepared for City Council action on 2/16/21.

The design process and permitting process will continue concurrent with finalizing the GMP and preparing to start the work. The critical path for this tear-down and replace project is actually getting subcontractors on board, mobilizing to the site and getting the site prepared for the Segment 1 replacement construction. We can complete the demolition and grading work at the site concurrent with finalizing the building permits with City Building Department. This is important as they will want a letter from geotechnical consultant for building pad improvements prior to issuance of building permit.

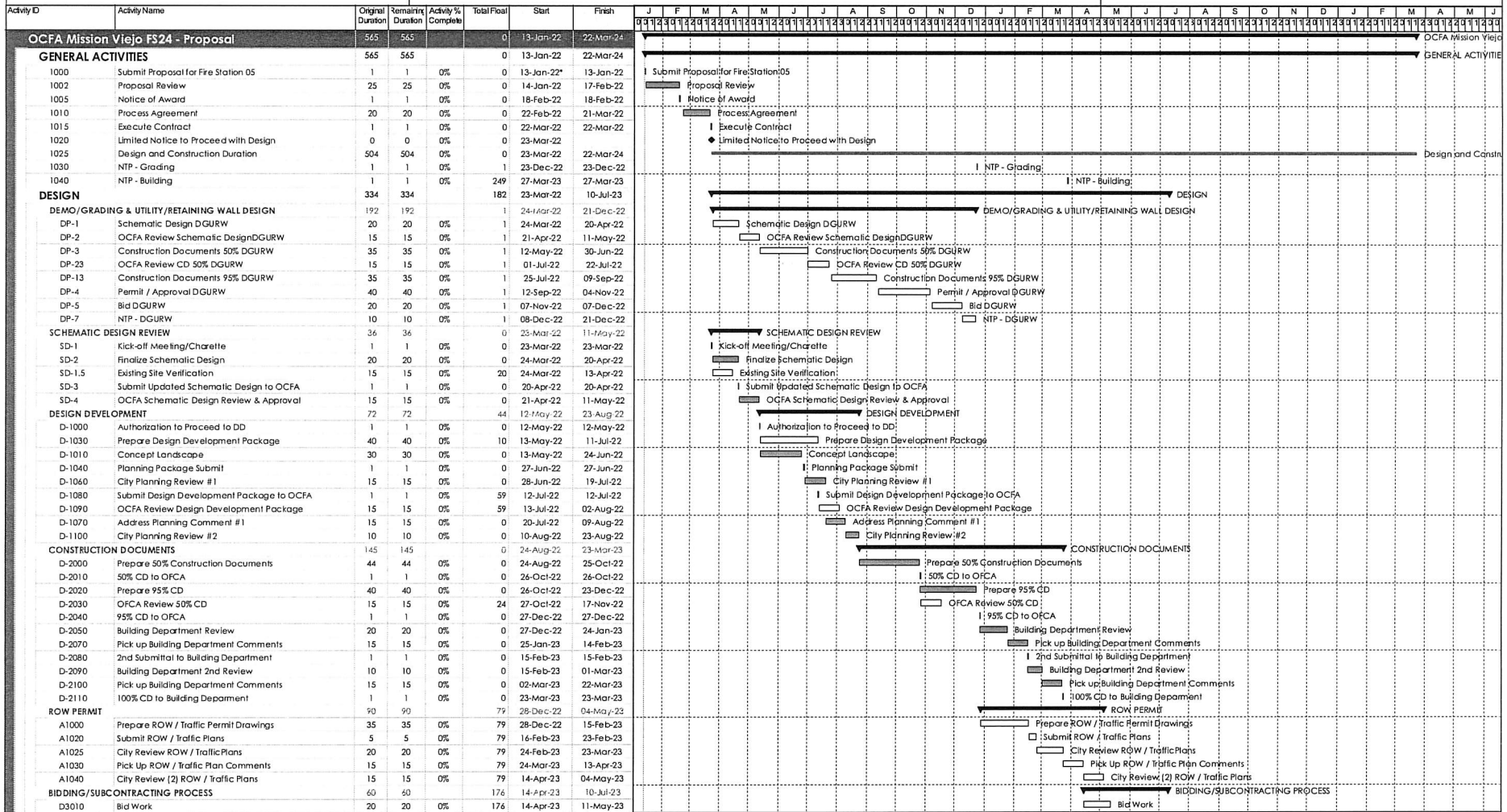
This proposal schedule shows Milestone Activities for Demolition & Grading process, Building Foundation & Shell, Rough Framing & Systems Rough-ins within the shell, Interior Finishes, Site work, and Project Close-out activities meeting the 3/31/22 completion per the grant requirements. The milestone portions of the work will be further developed into a more detailed schedule as the design develops and the actual work activities are better defined.

The proposal schedule meets the Proposed Project Schedule in the RFP for completion of work and turnover not later than 3/31/22. The ECC/JKA team will work with City Staff to take this proposal schedule and adjust it to meet the mutually agreed upon goals and objectives of the Project Team once we have had a chance to engage in further discussions of the overall process and objectives. Our goal is to be proactive members of the overall team to create a mutually agreeable schedule that will facilitate the most efficient and cost-effective design and construction process for all parties. Our goal is to be proactive members of the overall team to create a mutually agreeable schedule that will facilitate the most efficient and cost-effective design and construction process for all parties.

Calendar = 5-Day Workweek w/Holidays  
Data Date: 13-Jan-22  
Finish Date: 22-Mar-24

ORANGE COUNTY FIRE AUTHORITY  
MISSION VIEJO FIRE STATION 24  
25862 MARGUERITE PKWY, MISSION VIEJO, CA 92692

Remaining Level of Effort  
Actual Level of Effort  
Actual Work  
Remaining Work  
Critical Remaining Work  
Milestone



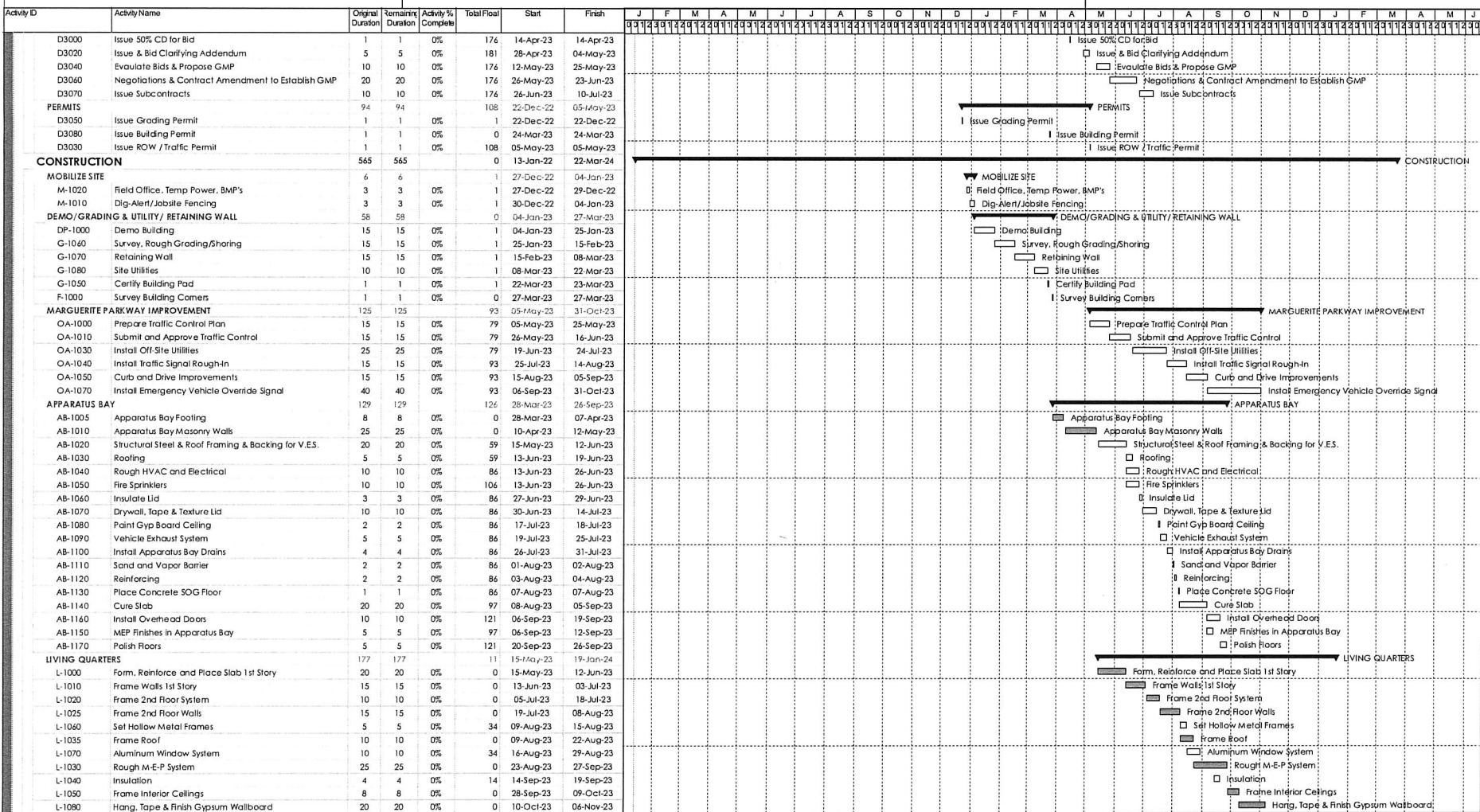
RFP SCHEDULE  
ALL ACTIVITIES  
Page 1 of 4



Calendar = 5-Day Workweek w/Holidays  
 Data Date: 13-Jan-22  
 Finish Date: 22-Mar-24

ORANGE COUNTY FIRE AUTHORITY  
 MISSION VIEJO FIRE STATION 24  
 25862 MARGUERITE PKWY, MISSION VIEJO, CA 92692

Remaining Level of Effort    Remaining Work  
 Actual Level of Effort    Critical Remaining Work  
 Actual Work    Milestone



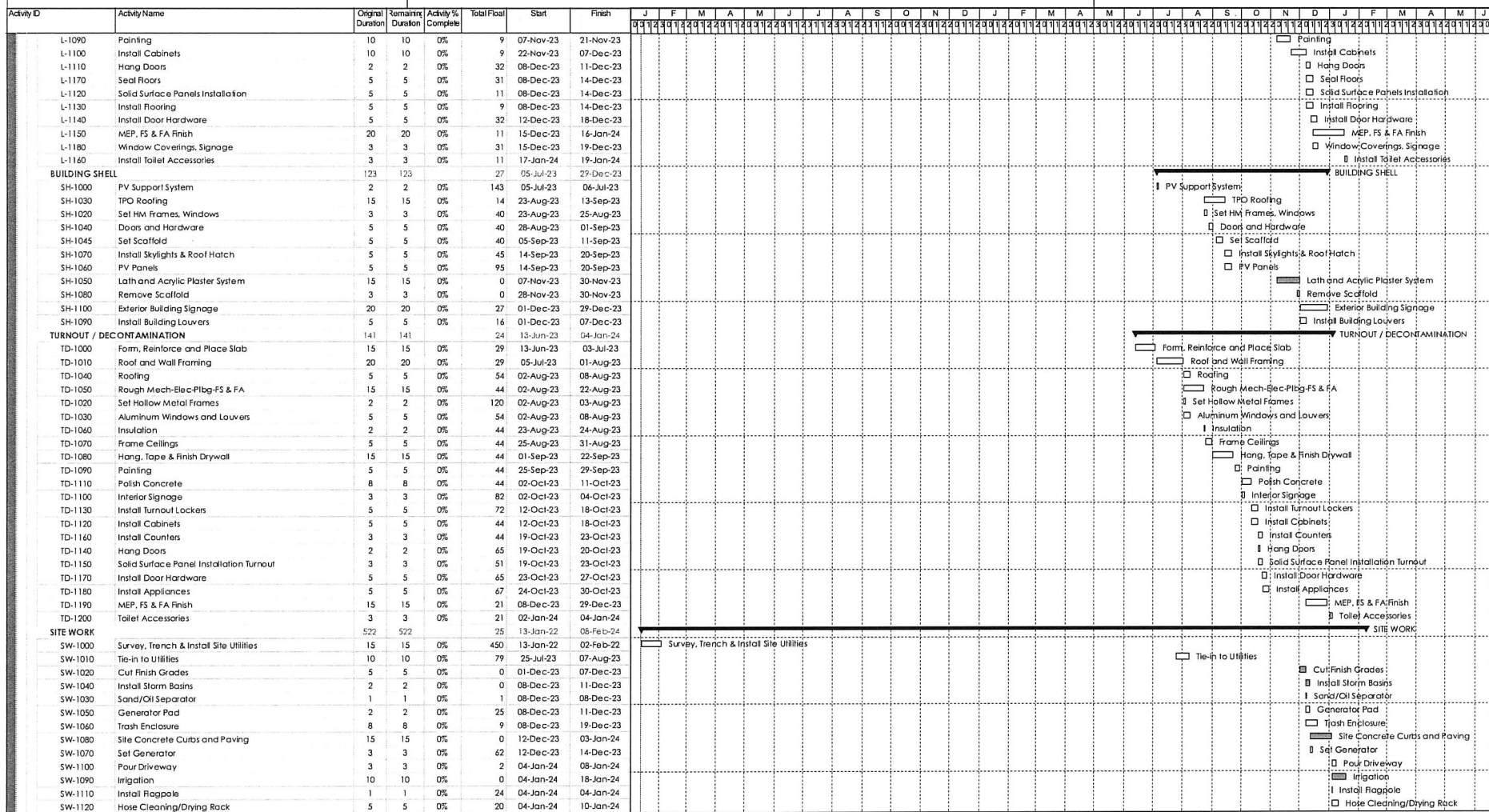
RFP SCHEDULE  
 ALL ACTIVITIES  
 Page 2 of 4



Calendar = 5-Day Workweek w/Holidays  
 Data Date: 13-Jan-22  
 Finish Date: 22-Mar-24

ORANGE COUNTY FIRE AUTHORITY  
 MISSION VIEJO FIRE STATION 24  
 25862 MARGUERITE PKWY, MISSION VIEJO, CA 92692

Remaining Level of Effort  
 Actual Level of Effort  
 Actual Work  
 Remaining Work  
 Critical Remaining Work  
 Milestone



RFP SCHEDULE  
 ALL ACTIVITIES  
 Page 3 of 4





### **Skilled Workforce Plan & Methodology**

EC Constructors Inc (ECC) and its subcontractors at every tier shall comply with requirements of Public Contract Code relative to Skilled and Trained Workforce (STW) and we will provide OCFA with evidence, on a monthly basis when field work is being performed. Included as follow-on page in this proposal is an example of the Monthly Report that all subcontractors working on the project are required to complete in compliance with the reporting protocol in the regulations.

EC Constructors has agreement to train apprentice for Carpentry, Laborer (Building), and Cement Mason trades with the Associated General Contractors San Diego (AGCSD). AGCSD has State approved apprenticeship training program that operates in San Diego and Riverside Counties and turns out a significant quantity of apprentices each year. In addition to training apprentice with AGCSD, our trades personnel are made up of skilled journeypersons that have graduated from a State approved apprenticeship program and journeypersons currently being certified as skilled tradespersons as allowed by State regulations.

Subcontractors listed in this proposal have all worked successfully with ECC on other design build projects with the STW compliance and reporting requirements. These subcontractors are committed to training apprentices and maintaining a workforce of personnel that have graduated from a State approved apprenticeship program allowing them to meet the percentage requirements mandated in the regulation. We have found that the best plan to meet the requirements is to utilize subcontractors that are familiar with the requirements and have met the requirements on previous design build projects.

Should it be necessary for ECC to bid out any of the work over ½ of 1% of the value of the Prime Contract, we shall do so utilizing a best value selection process where price and other factors are considered in the selection of the subcontractor per the regulations related to design build projects. One of the criteria that will be considered for best value selection will be whether the firm can and has met STW requirements on previous projects. The requirements to comply with STW regulations on this design build project will be clearly denoted in any bid advertisement as well as in any bid invites sent out by ECC.



## Skilled and Trained Workforce

(Public Contract Code section 2600 et seq.)

Subcontractor understands that the Subcontract Work and Subcontract Documents may require compliance with Public Contract Code section 2600 et. seq. regarding the use of workers in apprenticeable occupations. Subcontractor shall provide workers to the project that are skilled journeypersons and graduates of approved apprenticeship programs in the required percentage as set forth in the Public Contract Code. Subcontractor agrees to comply with the requirements in effect during performance of the Subcontract Work on the project with respect to all of Subcontractor's workers. Subcontractor shall provide a completed report demonstrating its compliance with these requirements on a monthly basis. The report shall be in the form required by the Prime Contract, or in the form below if no form is provided by Owner in Prime Contract.

### MONTHLY REPORT

Month: \_\_\_\_\_, 2022

Occupation/Trade: \_\_\_\_\_

In accordance with Public Contract Code section 2600 et seq., all the workers of \_\_\_\_\_ [SUBCONTRACTOR NAME] performing work in an apprenticeable occupation in the building and construction trades on the project known as \_\_\_\_\_

[PROJECT NAME AND LOCATION] are either skilled journeypersons or apprentices registered in an apprenticeship program approved by the Chief of the Division of Apprenticeship Standards of the California Department of Industrial Relations (the "Chief"). "Skilled journeyperson" means a worker who either:

- (1) Graduated from an apprenticeship program for the applicable occupation that was approved by the Chief or located outside California and approved for federal purposes pursuant to the apprenticeship regulations adopted by the Federal Secretary of Labor, or
- (2) Has at least as many hours of on-the-job-experience in the applicable occupation as would be required to graduate from an apprenticeship program for the applicable occupation that is approved by the Chief.

In addition, the required percentage of the skilled journeypersons employed by \_\_\_\_\_ [SUBCONTRACTOR NAME] to perform work on the project are graduates of an apprenticeship program for the applicable occupation.<sup>1</sup> A graduate of an apprenticeship program means either of the following:

- (1) An individual that has been issued a certificate of completion under authority of the California Apprenticeship Council for completing an apprenticeship program approved by the Chief pursuant to Section 3075 of the Labor Code; or

<sup>1</sup> Skilled journeypersons employed to perform work on the project by Contractor or its subcontractors at every tier must be graduates of an apprenticeship program for the applicable occupation at the following percentages per Section 2601: at least 30 percent for work performed on or after January 1, 2017; at least 40 percent for work performed on or after January 1, 2018; at least 50 percent for work performed on or after January 1, 2019; and at least 60 percent for work performed on or after January 1, 2020. The increases for 2018, 2019, and 2020 shall not apply to work performed in the following occupations: acoustical installer, bricklayer, carpenter, cement mason, drywall installer or lather, marble mason, finisher, or setter, modular furniture or systems installer, operating engineer, pile driver, plasterer, roofer or waterproofer, stone mason, surveyor, terrazzo worker or finisher, and tile layer, setter, or finisher. A percentage of graduates does not apply to the teamster occupation.

- (2) An individual that has completed an apprenticeship program located outside California and approved for federal purposes pursuant to the apprenticeship regulations adopted by the federal Secretary of Labor.

Exhibit A shall be utilized to demonstrate that all workers are either skilled journeypersons or apprentices registered in an apprenticeship program, pursuant to Public Contract Code Section 2601, subdivision (d)(1). Either Exhibit B or C must be completed to demonstrate compliance with Skilled and Trained Workforce "graduate" requirements, pursuant to Public Contract Code Section 2601, subdivision (d)(2). Exhibits are to be completed for each trade utilized by subcontractor.

\_\_\_\_\_ If this is marked, Subcontractor certifies there was less than 10 hours of work for this trade for this month and is exempt from filing report per 2601(d)(5).

Subcontractor declares under penalty of perjury the information provided in this report, including Exhibits A – C is true and correct. Subcontractor additionally declares under penalty of perjury that any and all documentary proof supporting the information provided in Exhibits A – C is in Subcontractor's possession and will be supplied upon request.

Date: \_\_\_\_\_

Subcontractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

EXHIBIT A:

\_\_\_\_\_ [MONTH] REQUIREMENT OF SKILLED JOURNEYPERSONS OR APPRENTICES

[Identify each **worker** as one of the following]

<b>Name of Employee</b>	<b>Journey person who Graduated from Apprentice Program (Yes/No)</b>	<b>Journey person with Sufficient On-The-Job Experience (Yes/No)</b>	<b>Apprentice Registered in an Approved Program (Yes/No)</b>

I declare, under penalty of perjury under the laws of the State of California, that the foregoing is true and correct and complies with Public Contract Code Section 2601, subdivisions (d)(1) and (e).

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Subcontractor: \_\_\_\_\_

Date: \_\_\_\_\_

EXHIBIT B:  
 \_\_\_\_\_ [MONTH] HEADCOUNT OF APPRENTICESHIP GRADUATES

List all Skilled Journeypersons in \_\_\_\_\_ [applicable occupation/trade] Classification

Name of Skilled Journeyperson	Last 4 Digits of Social Security	Graduate of Apprenticeship Program? (Yes/No)	Name of Apprenticeship Program or Meets § 2601, Subdivision (d)(3) Exception	Graduation Documentation on file? (Yes/No)

Total Number of Apprenticeship Graduates Worked in \_\_\_\_\_ [applicable occupation] Classification  
 ÷ Total Number of Skilled Journeypersons Worked in \_\_\_\_\_ [applicable occupation]  
 Classification = \_\_\_\_%

I declare, under penalty of perjury under the laws of the State of California, that the foregoing is true and correct and complies with Public Contract Code Sections 2601(d)(2) – (4).

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Subcontractor: \_\_\_\_\_

Date: \_\_\_\_\_

\*\* See attached plan to achieve substantial compliance per PCC § 2602 if Subcontractor falls short of required percentage of participation.

EXHIBIT C:

Name of Skilled Journeyperson	Last 4 Digits of Social Security	Graduate of Apprenticeship Program? (Yes/No)	Name of Apprenticeship Program or Meets § 2601, Subdivision (d)(3) Exception	Graduation Documentation on file? (Yes/No)	Total Hours Worked

\_\_\_\_\_ [MONTH] HOURS WORKED OF APPRENTICESHIP GRADUATES

List all Skilled Journeypersons in \_\_\_\_\_ [applicable occupation/trade] Classification

Total Hours of Apprenticeship Graduates Worked in \_\_\_\_\_ [applicable occupation] Classification  
 ÷ Total Hours of Skilled Journeypersons Worked in \_\_\_\_\_ [applicable occupation]  
 Classification = \_\_\_\_%

I declare, under penalty of perjury under the laws of the State of California, that the foregoing is true and correct and complies with Public Contract Code Section 2601, subdivisions (d)(2) – (4).

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Subcontractor: \_\_\_\_\_

Date: \_\_\_\_\_

\*\* See attached plan to achieve substantial compliance per PCC § 2602 if Subcontractor falls short of required percentage of participation.



## Party and Participant Disclosure Forms

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**3N: PARTY AND PARTICIPANT DISCLOSURE FORMS**

**Campaign Contributions Disclosure:** In conformance with the statutory requirements of the State of California Government Code Section 84308, part of the Political Reform Act and Title 2, California Code of Regulations 18438 through 18438.8, regarding campaign contributions to members of appointed Boards of Directors, DBE is required to complete the attached Party and Participant Disclosure Forms and submit as part of the proposal, **if applicable**.

DBE is required to submit only one copy of the completed form(s) as part of its proposal. This/these form(s) should be included in the original RFP. The DBE and subcontractors must complete the form entitled "Party Disclosure Form". Lobbyists or agents representing the DBE in this procurement must complete the form entitled "Participant Disclosure Form". Reporting of campaign contributions is a requirement from the proposed submittal date up and until the OCFA Board of Directors takes action.

**ORANGE COUNTY FIRE AUTHORITY  
BOARD OF DIRECTORS**

<b>David John Shawver, Chair</b> City of Stanton	<b>Michele Steggell, Vice Chair</b> City of La Palma
<b>Ross Chun, Director</b> City of Aliso Viejo	<b>Sunny Park, Director</b> City of Buena Park
<b>Frances Marquez, Director</b> City of Cypress	<b>Joseph Muller, Director</b> City of Dana Point
<b>John O'Neill, Director</b> City of Garden Grove	<b>Anthony Kuo, Director</b> City of Irvine
<b>Don Sedgwick, Director</b> City of Laguna Hills	<b>Sandy Rains, Director</b> City of Laguna Niguel
<b>Noel Hatch, Director</b> City of Laguna Woods	<b>Mark Tettemer, Director</b> City of Lake Forest
<b>Shelley Hasselbrink, Director</b> City of Los Alamitos	<b>Ed Sachs, Director</b> City of Mission Viejo
<b>Carol Gamble, Director</b> City of Rancho Santa Margarita	<b>Kathy Ward, Director</b> City of San Clemente
<b>Troy Bourne, Director</b> City of San Juan Capistrano	<b>Jessie Lopez, Director</b> City of Santa Ana
<b>Joe Kalmick, Director</b> City of Seal Beach	<b>Letitia Clark, Director</b> City of Tustin
<b>Vince Rossini, Director</b> City of Villa Park	<b>Tri Ta, Director</b> City of Westminster
<b>Eugene Hernandez, Director</b> City of Yorba Linda	<b>Donald Wagner, Director</b> County of Orange
<b>Lisa Bartlett, Director</b> County of Orange	

**PARTY DISCLOSURE**

The attached *Party Disclosure Form* must be completed and submitted by the DBE and subcontractors with the proposal by all firms subject to the campaign contribution disclosure requirements stated in Section VI this solicitation. It is anticipated that a recommendation for award of this contract will be presented to the Board of Directors of OCFA for approval. (Please see next page for definitions of these terms.)

**IMPORTANT NOTICE**

## Basic Provisions of Government Code Section 84308

- A. If you are an applicant for, or the subject of, any contract award, you are prohibited from making a campaign contribution of more than \$250 to any board member or his or her alternate. This prohibition begins on the date the solicitation is initiated, and the prohibition ends three months after a final decision is rendered by the Board of Directors. In addition, no board member or alternate may solicit or accept a campaign contribution of more than \$250 from you during this period.
- B. These prohibitions also apply to your agents, and, if you are a closely held corporation, to your majority shareholder as well. These prohibitions also apply to your subcontractor(s), joint venturer(s), and partner(s) in this proceeding. Also included are parent companies and subsidiary companies directed and controlled by you, and political action committees directed and controlled by you.
- C. You must file the attached disclosure form and disclose whether you or your agent(s) have in the aggregate contributed more than \$250 to any board member or his or her alternate during the 12-month period preceding the contract award.
- D. If you or your agent have in the aggregate contributed more than \$250 to any individual board member or his/or her alternate during the 12 months preceding the decision on the contract award or proceeding, that board member or alternate must disqualify himself or herself from the decision. However, disqualification is not required if the board member or alternate returns the campaign contribution within 30 days from the time the director knows, or should have known, about both the contribution and the fact that you are a party in the proceeding. The Party Disclosure Form should be completed and filed with your proposal, or with the first written document you file or submit after the proceeding commences.
  1. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements<sup>1</sup> for use, including all entitlements for land use, all contracts<sup>2</sup> (other than competitively bid, labor or personal employment contracts), and all franchises.
  2. Your "agent" is someone who represents you in connection with a proceeding involving a license, permit or other entitlement for use. If an individual acting as an agent is also acting in his or her capacity as an employee or member of a law, architectural, engineering, consulting firm, or similar business entity, both the business entity and the individual are "agents."
  3. To determine whether a campaign contribution of more than \$250 has been made by you, campaign contributions made by you within the preceding 12 months must be aggregated with those made by your agent within the preceding 12 months or the period of the agency, whichever is shorter. Contributions made by your majority shareholder (if a closely held corporation), your subcontractor(s), your joint venturer(s), and your partner(s) in this proceeding must also be included as part of the aggregation. Campaign contributions made to different directors or their alternates are not aggregated.

This notice summarizes the major requirements of Government Code Section 84308 of the Political Reform Act and 2 Cal. Adm. Code Sections 18438-18438.8 as it relates to contract awards.

<sup>1</sup> Entitlement for the purposes of this form refers to contract award. <sup>2</sup> All Contracts for the purposes of this form refer to the contract award of this specific solicitation.

**PARTY DISCLOSURE FORM**Party's Name: N/AParty's Address: N/AParty's Telephone: N/ASolicitation Title and Number: N/A

Based on the party disclosure information provided, are you or your firm subject to party disclosures?  
No ☒ If no, check the box and sign below. Yes ☐ If yes, check the box, sign below and complete the form.

Date: N/A N/A**Signature of Party and/or Agent**

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***To be completed only if campaign contributions have been made in the preceding twelve (12) months. Attach additional copies if needed.***

Board Member(s) to whom you and/or your agent made campaign contributions and dates of contribution(s) in the preceding 12 months:

Name of Member: N/AName of Contributor (if other than Party): N/ADate(s): N/AAmount(s): N/AName of Member: N/AName of Contributor (if other than Party): N/ADate(s): N/AAmount(s): N/A

**PARTICIPANT (AGENT) DISCLOSURE**

The *Participant Disclosure Form* must be completed by lobbyists or agents representing the DBE in this procurement. It is anticipated that a recommendation for award of this contract will be presented to the Board of Directors of OCFA for approval.

**IMPORTANT NOTICE**

Basic Provisions of Government Code Section 84308

- A. If you are a participant in a proceeding involving any contract award, you are prohibited from making a campaign contribution of more than \$250 to any Board member. This prohibition begins on the date you begin to actively support or oppose an application for contract award pending before OCFA or any of its affiliated agencies, and continues until three months after a final decision is rendered on the application or proceeding by the Board of Directors. No Board member may solicit or accept a campaign contribution of more than \$250 from you and/or your agency during this period if the Board member knows or has reason to know that you are a participant.
- B. The attached disclosure form must be filed if you or your agent has contributed more than \$250 to any Board member for OCFA or any of its affiliated agencies during the 12-month period preceding the beginning of your active support or opposition (The disclosure form will assist the Board members in complying with the law).
- C. If you or your agent have made a contribution of more than \$250 to any Board member during the 12 months preceding the decision in the proceeding, that Board member must disqualify himself or herself from the decision. However, disqualification is not required if the Board member returns the campaign contribution within 30 days from the time the Board member knows, or should have known, about both the contribution and the fact that you are a participant in the proceeding.

The Participant Disclosure Form should be completed and filed with the proposal submitted by a party, or should be completed and filed the first time that you lobby in person, testify in person before, or otherwise directly act to influence the vote of the Board members of OCFA or any of its affiliated agencies.

1. An individual or entity is a "participant" in a proceeding involving an application for a license, permit or other entitlement for use if:
  - a. The individual or entity is not an actual party to the proceeding, but does have a significant financial interest in the OCFA's or one of its affiliated agencies' decisions in the proceeding; **AND**
  - b. The individual or entity, directly or through an agent, does any of the following:
    - i. Communicates directly, either in person or in writing, with a Board member of OCFA or any of its affiliated agencies for the purpose of influencing the Board member's vote on the proposal;
    - ii. Communicates with an employee of OCFA or any of its affiliated agencies for the purpose of influencing a Board member's vote on the proposal; or
    - iii. Testifies or makes an oral statement before the Board of Directors of OCFA or any of its affiliated agencies.
2. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements for use, including all entitlements for land use; all contracts (other than competitively bid, labor, or personal employment contracts) and all franchises.
3. Your "agent" is someone who represents you in connection with a proceeding for this proposed involving a contract award. If an agent acting as an employee or member of a law, architectural, engineering, or consulting firm, or a similar business entity or corporation, both the business entity or corporation and the individual are agents.
4. To determine whether a campaign contribution of more than \$250 has been made by a participant or his or her agent, contributions made by the participant within the preceding 12 months shall be aggregated with those made by the agent within the preceding 12 months or the period of the agency, whichever is shorter. Campaign contributions made to different Board members are not aggregated.

This notice summarizes the major requirements of Government Code Section 84308 and 2 Cal. Adm. Code Sections 18438-18438.8

**PARTICIPANT (AGENT) DISCLOSURE FORM**Prime's Firm Name: N/AParty's Name: N/AParty's Address: N/AParty's Telephone: N/A

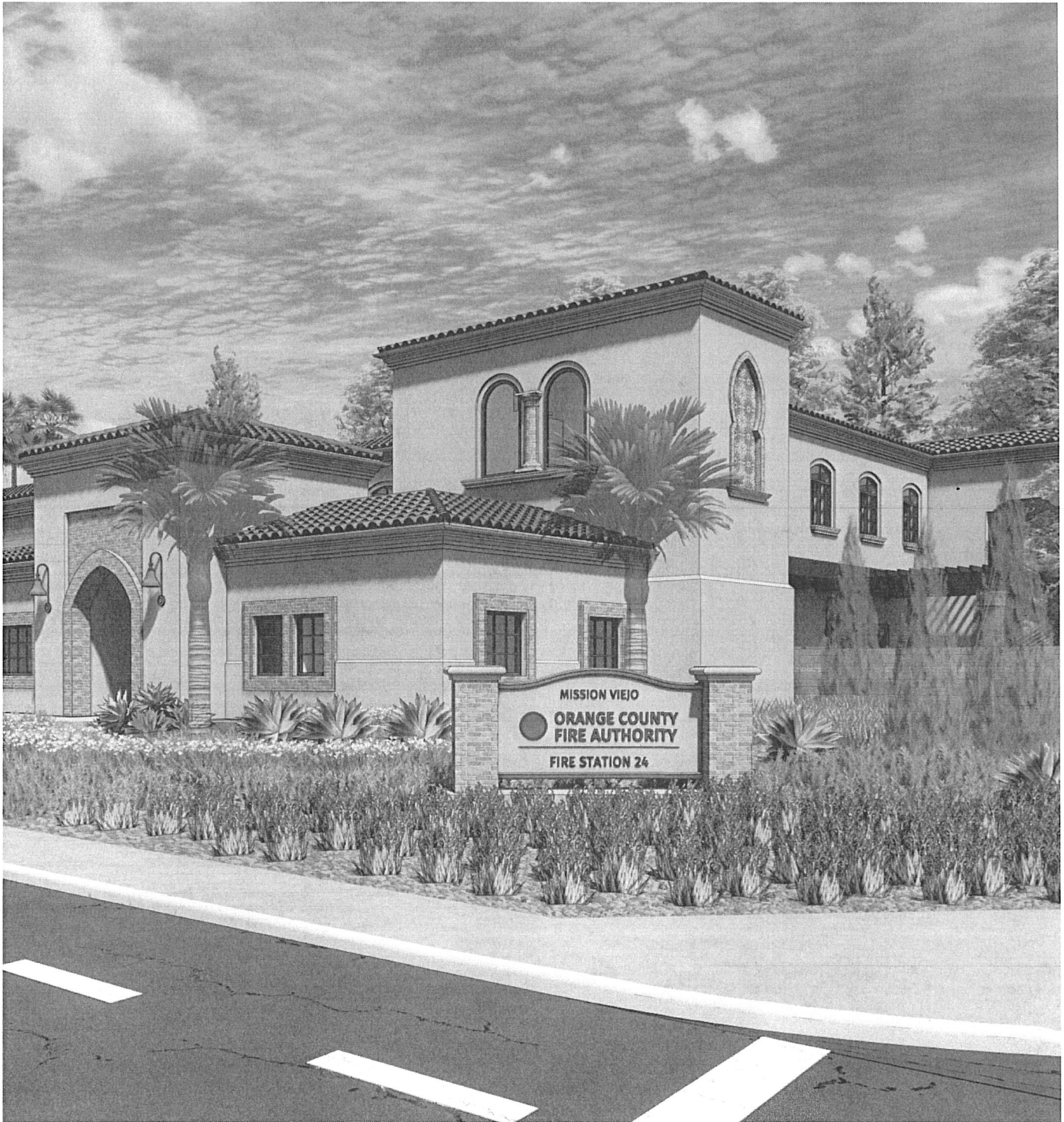
Solicitation Title and Number:

Based on the participant disclosure information provided, are you or your firm subject to participant disclosures?

No ☒ If no, check the box and sign below. Yes ☐ If yes, check the box, sign below and complete the form.Date: N/AN/A**Signature of Party and/or Agent*****To be completed only if campaign contributions have been made in the preceding twelve (12) months. Attach additional copies if needed.***

Board Member(s) to whom you and/or your agent made campaign contributions and dates of contribution(s) in the preceding 12 months:

Name of Board Member: N/AName of Contributor (if other than Party): N/ADate(s): N/AAmount(s): N/AName of Board Member: N/AName of Contributor (if other than Party): N/ADate(s): N/AAmount(s): N/A



## OCFA MISSION VIEJO FIRE STATION 24

### Price Proposal

January 13, 2022

Orange County Fire Authority

Response to RFP Number SK2489b

9834 River Street

Lakeside, CA 92040

Ph: 619.440.7181 Fax: 619.440.7180

Prepared By:



**3J: OFFER/COST PROPOSAL**

The following information is relevant to a determination of the best value in light of the Scope of Services to be provided. **Failure to submit the information in the format requested will result in the proposal being deemed non-responsive.**

**Instructions:**

- **NOTE:** This information must be submitted in a sealed envelope separate from all other components of the proposal.
- Input your information in the blank cells as described below.
- Include additional items and/or descriptions on additional sheets as necessary.
- Insert the lump sum subtotal for each category
- Add all categories to arrive at the Project Grand Total

**3J.1. Contract Price (15 Points Maximum)**

CATEGORY I: Preconstruction Phase		
Line	Description	
1	<b>Pre-Construction Service Fees</b> <i>(including but not limited to):</i> <ul style="list-style-type: none"> <li>• Cost Estimating &amp; Value Engineering</li> <li>• Scheduling</li> <li>• Constructability Review</li> <li>• Site Evaluation/Investigation (as necessary)</li> <li>• Reproduction Costs</li> <li>• Delivery</li> <li>• Permits and Fees</li> <li>• Other (Please list in an attachment)</li> </ul>	
	<i>Line Item Total:</i>	\$170,375
2	<b>Design Fees</b> <i>(including but not limited to the following disciplines):</i> <ul style="list-style-type: none"> <li>• Architectural</li> <li>• Interior Design</li> <li>• Civil</li> <li>• Landscape &amp; Irrigation</li> <li>• Structural</li> <li>• Mechanical</li> <li>• Plumbing</li> <li>• Fire/Life Safety</li> <li>• Electrical</li> <li>• Telecom/Data</li> <li>• Building Security</li> <li>• Signage</li> <li>• Permits and Fees</li> <li>• Specialty/Other (Please list in an attachment)</li> </ul>	
	<i>Line Item Total:</i>	\$980,000
<b>SUBTOTAL PRECONSTRUCTION PHASE:</b>		\$1,150,375
CATEGORY II: Construction Phase		
Line	Description	

3	<b>Design Team:</b> <ul style="list-style-type: none"><li>Construction Administration</li></ul>		
	<i>Line Item Total:</i>		\$145,000
	<b>Temporary Fire Station #24</b> <ul style="list-style-type: none"><li>Facilities</li><li>Utilities</li><li>FF&amp;E (Estimated at approximately \$325,000)</li></ul>		
	<i>Line Item Total:</i>		\$1,000,000
	<b>Demolition &amp; Construction of Replacement Fire Station #24</b> <ul style="list-style-type: none"><li>Demolition &amp; Construction Services</li><li>FF&amp;E (Estimated at \$650,000) \$750,000</li><li>Inspections, Permits &amp; Fees (<i>Provide an estimate; these fees will be reimbursed at actual cost or may be paid directly to the regulating agency by OCFA</i>)</li><li>Temporary Jobsite Facilities</li><li>Temporary Jobsite Utilities, Services &amp; Supplies</li></ul>		
	<i>Line Item Total:</i>		\$11,760,290
	<b>SUBTOTAL CONSTRUCTION PHASE:</b>		\$12,905,290
<b>PROJECT SUBTOTAL (Categories I &amp; II):</b>		\$14,055,665	
<b>CATEGORY III: OVERHEAD &amp; PROFIT</b>			
<b>Line</b>	<b>Description</b>	<b>%</b>	<b>\$</b>
4	Provide the percentage of the project subtotal (above) and corresponding amount for overhead/indirect costs.	4	\$563,000
5	Provide the percentage of the project subtotal (above) and corresponding amount for profit.	2.7	\$377,824
<b>SUBTOTAL OVERHEAD &amp; PROFIT (IN DOLLARS)</b>			\$940,824
<b>PROJECT GRAND TOTAL</b>			\$14,996,489
<b>CATEGORY IV: ADDITIONAL</b>			
<b>Extended Daily Rate:</b> Provide the daily rate for extended overhead, temporary fire station, and temporary jobsite facilities applicable to this project during construction.			\$1,500

**3J.2. Life Cycle Cost Analysis (10 Points Maximum):**

The information below will be used to prepare a simple life cycle cost analysis for the purpose of comparing the respective values of the fire stations proposed by the three DBEs over a 15-year period using the following formula:

$$\text{Life Cycle Cost} = \text{Category I} + (\text{Category II} \times 15 \text{ Years}) + \text{Category III} - \text{Category IV}$$

Provide the following estimated costs for proposed systems:

<b>CATEGORY I: INITIAL COST OF SYSTEMS</b>	
Provide the estimated initial cost for the following proposed systems.	
Structural	\$2,145,303
Mechanical	\$595,000

Plumbing	\$461,500
Electrical	\$949,000
Landscaping and Irrigation	\$189,000
<i>Total Initial Cost:</i>	\$4,339,803
<b>CATEGORY II: ANNUAL OPERATION, MAINTENANCE &amp; REPAIR</b>	
Provide the estimated annual costs including utilities and fuel to operate, maintain and repair the following proposed systems	
Structural	\$0
Mechanical	\$20,000
Plumbing	\$2,500
Electrical	\$40,000
Landscaping and Irrigation	\$22,000
<i>Total Annual Operation, Maintenance &amp; Repair Cost:</i>	\$84,500
<b>CATEGORY III: SYSTEM REHABILITATION OR REPLACEMENT</b>	
Include the estimated costs to rehabilitate (if applicable) or replace any systems with a usable life less than 15 years. Prorate the estimated costs if additional useful life remains at the end of the time period.	
Structural	\$0
Mechanical	\$0
Plumbing	\$0
Electrical	\$0
Landscaping and Irrigation	\$0
<i>Total System Rehabilitation or Replacement Cost:</i>	\$0
<b>CATEGORY IV: SALVAGE VALUE</b>	
Provide estimated salvage or other residual value (if any) for the proposed systems below.	
Structural	\$50,000
Mechanical	\$0
Plumbing	\$0
Electrical	\$5,000
Landscaping and Irrigation	\$0
<i>Total Estimated Salvage Value:</i>	\$55,000

Orange County Fire Authority

Solicitation No. SK2489b

**3B: BIDDER'S BOND**

(10% of Agreement Price)

**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, EC Constructors, Inc. as Principal ("Principal"), and Hartford Fire Insurance Company as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of Connecticut and authorized to do business as a surety in the State of California, are held and bound unto the Orange County Fire Authority ("OCFA") of Orange County, State of California as Obligee, in the sum of Ten Percent of the total bid Dollars (\$ 10% of the total bid amount ) lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the OCFA for all work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Project and, within the time and manner required under the Bid Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract ("Agreement"), in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the Agreement and to file the required performance and labor and material bonds, and to meet all other conditions to the Agreement between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to submit and execute the Agreement award documents as required in the Invitation for Bid Document within the timeline specified therein.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the OCFA awards the bid, the security of unsuccessful DBE(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no DBE may withdraw its bid for ninety (180) days after the date of the bid opening.

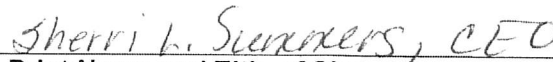
**[Signature Page Follows]**

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 29th day of December, 2021, accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

**CONTRACTOR:**

(Affix Corporate Seal)

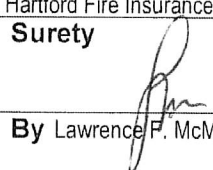
EC Constructors, Inc.

**Principal****By****Print Name and Title of Signatory****SURETY:**

(Affix Corporate Seal)



Hartford Fire Insurance Company

**Surety**  
**By** Lawrence P. McMahon, Attorney-in-Fact

Alliant Insurance Services

**Name of California Agent of Surety**

701 B Street, 6th Floor, San Diego, CA 92101

**Address of California Agent of Surety**

619-238-1828

**Telephone Number of California Agent of Surety**

Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )

County of San Diego )

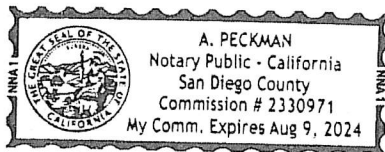
On 11/10/2022 before me, A. Peckman, Notary Public,  
Date Here Insert Name and Title of the Officer

personally appeared Sherri Summers  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(x) whose name(x) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(x) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature [Signature]  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: Sherri Summers

☒ Corporate Officer — Title(s): CEO

☐ Partner — ☐ Limited ☐ General

☐ Individual ☐ Attorney in Fact

☐ Trustee ☐ Guardian or Conservator

☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_

☐ Partner — ☐ Limited ☐ General

☐ Individual ☐ Attorney in Fact

☐ Trustee ☐ Guardian or Conservator

☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

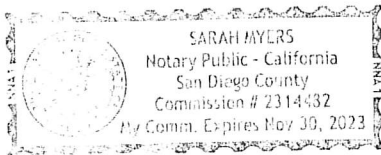
STATE OF CALIFORNIA

County of San Diego

On DEC 29 2021 before me, Sarah Myers, Notary Public,  
Date Insert Name of Notary exactly as it appears on the official seal

personally appeared Lawrence F. McMahon

Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person(~~ss~~) whose name(~~ss~~) is/~~ss~~ subscribed to the within instrument and acknowledged to me that he/~~ss~~ executed the same in his/~~ss~~ authorized capacity(~~ss~~), and that by his/~~ss~~ signature(~~ss~~) on the instrument the person(~~ss~~), or the entity upon behalf of which the person(~~ss~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature

Signature of Notary Public Sarah Myers

Place Notary Seal Above

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of the form to another document.

### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner ☐ Limited ☐ General  
☒ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER

Top of thumb here

Signer is Representing:

Surety Company

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER

Top of thumb here

Signer is Representing:

# POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-11

One Hartford Plaza

Hartford, Connecticut 06155

Bond.Claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: ALLIANT INSURANCE SERVICES INC

Agency Code: 72-160200

- ☒ Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut  
☒ Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana  
☒ Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut  
☐ Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut  
☐ Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana  
☐ Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois  
☐ Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana  
☐ Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of Unlimited :

Lilia De Loera, Maria Guise, Janice Martin, Lawrence F. McMahon, Sarah Myers of SAN DIEGO, California

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



*Shelby Wiggins*

Shelby Wiggins, Assistant Secretary

*Joelle L. LaPierre*

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA

COUNTY OF SEMINOLE

ss. Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.



*Jessica Ciccone*

Jessica Ciccone  
My Commission HH 122280  
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of December 29, 2021.

Signed and sealed in Lake Mary, Florida.



*Keith D. Dozois*

Keith D. Dozois, Assistant Vice President

**SECTION 4: CONTRACT DOCUMENTS****CONTRACT SUBMITTALS (SUCCESSFUL DBE ONLY)**

Within fourteen calendar days (14) of the issuance of the Notice to Proceed, the successful DBE must submit the documents below. Failure to do so may result in the contract being deemed abandoned.

- ☐ **Transmittal Page Two – Award Documents (4A)**
- ☐ **Original Performance Bond (4B)**
- ☐ **Original Payment (Labor and Materials) Bond (4C)**
- ☐ **Award Certifications (4D)**
- ☐ **IRS Form W9 (4E)**
- ☐ **Signed Contract Agreement (4F)**
- ☐ **General Conditions (4G)**
- ☐ **Guarantee (4H)**
- ☐ **All required Insurance Certificates and Endorsements**

**4A: TRANSMITTAL PAGE TWO – AWARD DOCUMENTS****TO:** Orange County Fire Authority**FROM:** EC Constructors, Inc.

(Legal Name of Contractor)

**PROJECT:** Design-Build Services for OCFA Mission Viejo Fire Station #24**AWARDED CONTRACTOR'S CHECKLIST:**

The awarded Contractor is required to provide the following documents:

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Transmittal Page (4A)<br>(1) | <input checked="" type="checkbox"/> Award Certifications (4D)<br>(2)      | <input checked="" type="checkbox"/> General Conditions (4G)<br>(2) |
| <input checked="" type="checkbox"/> Performance Bond (4B)<br>(2) | <input checked="" type="checkbox"/> IRS Form W9 (4E)<br>(1)               | <input checked="" type="checkbox"/> Guarantee (4H)<br>(2)          |
| <input checked="" type="checkbox"/> Payment Bond (4C)<br>(2)     | <input checked="" type="checkbox"/> Signed Contract Agreement (4F)<br>(2) | <input checked="" type="checkbox"/> Insurance Certificates<br>(1)  |

**TO THE OCFA:**

Signature below acknowledges that, should the Contractor fail to provide the above documents in a form satisfactory to OCFA within fourteen days of the issuance of the Notice of Award, OCFA may, at its option, consider the Contractor to have abandoned the agreement, upon which the full payment of the sum stated in the Bidder's Bond shall be due immediately.

**SIGNATURE OF CONTRACTOR:****PRINTED NAME:** Sherri L. Summers**TITLE:** CEO

Orange County Fire Authority

Solicitation No. SK2489b  
Bond No. 72BCSIS6513  
Premium:\$126,149.00  
Premium is for Contract Term and Subject to  
Adjustment Based on Final Contract Price

**4B: FAITHFUL PERFORMANCE BOND**

(100% of Agreement Price)

**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and EC Constructors, Inc. ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**RFP SK2489b – Design-Build Services for OCFA Mission Viejo Fire Station #24**

("Contract") which Contract dated 6/23/22 and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, the Principal and Hartford Fire Insurance Company ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of Fourteen Million Nine Hundred Ninety Six Thousand Four Hundred Eighty Nine Dollars (\$14,996,489), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the OCFA all damages the OCFA incurs as a result of the Principal's failure to perform all the work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the OCFA, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the OCFA from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the OCFA's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

**[Signature Page Follows]**

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 19th day of May, 2022 in accordance with Article 5, commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

**CONTRACTOR:**

(Affix Corporate Seal)

EC Constructors, Inc.**Principal****By**Sherri L. Summers, CEO**Print Name and Title of Signatory****SURETY:**

(Affix Corporate Seal)

Hartford Fire Insurance Company**Surety****By** Lawrence F. McMahon, Attorney-in-FactAlliant Insurance Services**Name of California Agent of Surety**701 B Street, 6th Floor, San Diego, CA 92101**Address of California Agent of Surety**619-238-1828**Telephone Number of California Agent of Surety**

**Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.**

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of San Diego

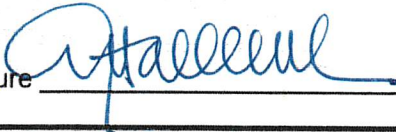
On May 19, 2022 before me, Maria Hallmark, Notary Public  
(insert name and title of the officer)

personally appeared Lawrence F. McMahon,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature



(Seal)



# POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-11

One Hartford Plaza

Hartford, Connecticut 06155

[Bond.Claims@thehartford.com](mailto:Bond.Claims@thehartford.com)

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: ALLIANT INSURANCE SERVICES INC

Agency Code: 72-160200

- |                                     |  |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut         |
| <input checked="" type="checkbox"/> | Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana         |
| <input checked="" type="checkbox"/> | Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut |
| <input type="checkbox"/>            | Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut |
| <input type="checkbox"/>            | Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana            |
| <input type="checkbox"/>            | Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois     |
| <input type="checkbox"/>            | Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana   |
| <input type="checkbox"/>            | Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida |

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of Unlimited:

Lilia De Loera, Maria Guise, Janice Martin, Lawrence F. McMahon, Sarah Myers of SAN DIEGO, California

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



*Shelby Wiggins*

Shelby Wiggins, Assistant Secretary

*Joelle L. LaPierre*

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA

COUNTY OF SEMINOLE

ss. Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.



*Jessica Ciccone*

Jessica Ciccone  
My Commission HH 122280  
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of May 19, 2022.

Signed and sealed in Lake Mary, Florida.



*Keith D. Dozois*

Keith D. Dozois, Assistant Vice President

Orange County Fire Authority

Solicitation No. SK2489b  
Bond No. 72BCSIS6513  
Premium included in  
Performance Bond

**4C: PAYMENT BOND**

**Contractor's Labor & Material Bond  
(100% of Agreement Price)**

**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and EC Constructors, Inc., ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**RFP SK2489b – Design-Build Services for OCFA Mission Viejo Fire Station #24**

("Contract") which Contract dated 6/23/22 and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and, Hartford Fire Insurance Company ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of Fourteen Million Nine Hundred Ninety Six Thousand Four Hundred Eighty Nine Dollars (\$14,996,489), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

**[Signature Page Follows]**

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 19th day of May, 2022.

**CONTRACTOR:**

(Affix Corporate Seal)

EC Constructors, Inc.

**Principal**

**By**

Sherri L. Summers, CEO

**Print Name and Title of Signatory**

**SURETY:**

(Affix Corporate Seal)

Hartford Fire Insurance Company

**Surety**

By Lawrence F. McMahon, Attorney-in-Fact

Alliant Insurance Services

**Name of California Agent of Surety**

701 B Street, 6th Floor, San Diego, CA 92101

**Address of California Agent of Surety**

619-238-1828

**Telephone Number of California Agent of Surety**

**Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.**

## ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of San Diego


On May 19, 2022 before me, Maria Hallmark, Notary Public  
(insert name and title of the officer)

personally appeared Lawrence F. McMahon,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

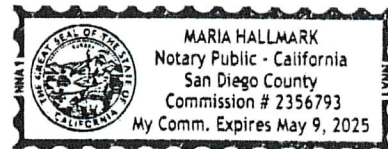
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature



(Seal)



# POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-11

One Hartford Plaza

Hartford, Connecticut 06155

[Bond.Claims@thehartford.com](mailto:Bond.Claims@thehartford.com)

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: ALLIANT INSURANCE SERVICES INC

Agency Code: 72-160200

- ☒ **Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut  
☒ **Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana  
☒ **Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut  
☐ **Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut  
☐ **Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana  
☐ **Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois  
☐ **Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana  
☐ **Hartford Insurance Company of the Southeast**, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, **up to the amount of Unlimited :**

Lilia De Loera, Maria Guise, Janice Martin, Lawrence F. McMahon, Sarah Myers of SAN DIEGO, California

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**In Witness Whereof**, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



*Shelby Wiggins*

Shelby Wiggins, Assistant Secretary

*Joelle L. LaPierre*

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA

COUNTY OF SEMINOLE

ss. Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.



*Jessica Ciccone*

Jessica Ciccone  
My Commission HH 122280  
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of May 19, 2022.

Signed and sealed in Lake Mary, Florida.



*Keith D. Dozois*

Keith D. Dozois, Assistant Vice President

**4D: AWARD CERTIFICATIONS****Prevailing Wage:**

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hour notice, payroll records, and apprentice and trainee employment requirements, for all Services on the above Project, including, without limitation, the State labor compliance monitoring and enforcement by the Compliance Monitoring Unit of the Department of Industrial Relations, if this Project is subject to a labor compliance.

**Workers' Compensation:**

In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract. CA Labor Code section 3700 in relevant part provides that every employer except the State shall secure the payment of compensation in one or more of the following ways: (1) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state; (2) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees. I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract.

Date: June 7, 2022

Legal Name of Contractor: EC Constructors, Inc.

Signature: 

Printed Name: Sherri L. Summers

Title: CEO

**Form W-9**  
(Rev. October 2018)  
Department of the Treasury  
Internal Revenue Service

**Give Form to the requester. Do not send to the IRS.**

► Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <i>EC Constructors, Inc.</i>	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.  <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate  <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is <b>not</b> disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.  <input type="checkbox"/> Other (see instructions) ► _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____  Exemption from FATCA reporting code (if any) _____  <i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.) See instructions. <i>9834 River St.</i>	Requester's name and address (optional)
	6 City, state, and ZIP code <i>Lakeside CA 92040</i>	
7 List account number(s) here (optional)		

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

**Social security number**

				-				-				
--	--	--	--	---	--	--	--	---	--	--	--	--

or

**Employer identification number**

2	0	-	4	0	9	2	7	6	7
---	---	---	---	---	---	---	---	---	---

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶ <i>Sherrill Summers</i>	Date ▶ <i>June 7, 2022</i>
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Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
  - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
  - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
  - Form 1099-S (proceeds from real estate transactions)
  - Form 1099-K (merchant card and third party network transactions)
  - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
  - Form 1099-C (canceled debt)
  - Form 1099-A (acquisition or abandonment of secured property)
- Use Form W-9 only if you are a U.S. person (including a resident alien). To provide your correct TIN.

*If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.*

**4G: GENERAL CONDITIONS****ORANGE COUNTY FIRE AUTHORITY  
GENERAL CONDITIONS  
FIRE STATION 24****50.00 DEFINITIONS**

As used herein the following terms have the meaning indicated:

Acts of God: An earthquake in excess of a magnitude of 3.5 on the Richter Scale and tidal waves.

Addendum: A written or graphic instrument issued by Project Manager on behalf of the Authority prior to the execution of the Contract which sets forth additions, deletions, or other revisions to the Contract Documents or clarifications thereof.

Architect: an individual or entity that is either a partner, subcontractor or joint venturer with Contractor and is the party responsible for the overall design of the Project.

Authority: The Orange County Fire Authority, a joint powers authority, is a legal entity and political subdivision of the State of California.

Board of Directors: The governing body of the Orange County Fire Authority.

Change Order: A written Modification executed by both parties (except in the event of a unilateral Change Order as herein provided) and consisting of additions, deletions or other changes to the Contract. A Change Order may be accompanied by and/or may identify additional or revised drawings, sketches or other written instructions which become and form a part of the Contract Documents by virtue of the executed Change Order. Except as otherwise provided in Section 1.16., a change in the Work, or a change in the Contract Time or the Contract Price shall become the subject of a Change Order

Construction Contract or Contract or Contract Documents: The written agreement covering the performance of the Work and the furnishing of labor, materials, tools, and equipment in the construction of the Work.

Contract Directive: A written document issued by the Project Manager and consisting of additions, deletions, clarifications, interpretations, or other written instructions issued by the Project Manager with respect to the performance of the Work or the activities of the Contractor on the Job Site or the property of Authority. A Contract Directive can be a response to a Request for Information; however, all responses to Requests for Information need not be Contract Directives. A Contract Directive may become the subject of a Change Order only if such Directive involves a substantial change in the Work, or a change in the Contract Time or the Contract Amount, and approved as a Change Order by the Project Manager.

Contractor's Construction Schedule: The detailed schedules, based on a critical path method ("CPM"), prepared by the Contractor, presenting an orderly and realistic plan for completion of the work required in the Contract Documents. The Contractor's Construction Schedule shall also include the completion dates of the Milestones and a final proposal narrative as described in the Contract Documents.

Contract Price: The total amount agreed to be paid to Contractor for the Work required under the Contract Documents inclusive of all agreed to Change Orders.

Contractor: The person or Design-Build Entity awarded the Contract to design and build the Project and perform the Work there under.

Day: A calendar day unless otherwise specifically designated.

Design – Build Entity (DBE): The entity awarded the Contract to design and build the Project and perform the Work thereunder.

Excusable Labor Dispute: Any labor dispute directed against an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, and which prevents Contractor from obtaining labor or materials necessary for the performance of the Work and actually delays the performance of the Work; provided, however, that suitable substitute labor or materials are not reasonably obtainable.

Excusable Transportation Delay: Any labor dispute directed at an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, or other delay not within the reasonable control of the Contractor which prevents the transportation of necessary materials to the Project and actually delays the performance of Work; provided, however, that suitable substitute transportation for such materials is not reasonably available.

Fire Chief: The Fire Chief of the Orange County Fire Authority or the Fire Chief's Designee.

Laws: Each and every Federal, state, and local law, ordinance, code, rule, and regulation, as well as the lawful order or decree of any public or quasi-public authority and each of their respective inspectors or officials, including but not limited to all applicable building codes, bearing on or otherwise applicable to the Project. The term "Laws" also includes any and all conditions of approval of each and every entitlement or permit issued or approved by the Local Jurisdictions.

Local Jurisdictions: Any governmental agency with land use authority over the Project or part of the Project and each regulatory agency or authority with jurisdiction over the Project, and their respective inspectors and representatives.

Authority: The term "Authority" wherever used in the Contract Documents shall be deemed synonymous with the term "Orange County Fire Authority."

Modification or Contract Modification: (1) a written amendment to this Contract signed by both Parties; (2) a Change Order; or (3) a Contract Directive or other written interpretation or order issued as a response to a Request for Information or otherwise issued by the Project Manager pursuant to the terms of the Contract Documents. Contractor acknowledges that the execution on its behalf of any such Modification by any one person with apparent authority shall be binding against the Contractor. A Modification may be made only after execution of the Contract. No Contract Directive or response to a Request for Information shall be construed as a Change Order or other Modification unless it expressly so states.

Non-Conformance Notice: A notice issued by the Project Manager documenting that the work or some portion thereof has not been performed in accordance with the requirements of the Contract Documents.

Notice to Proceed: The written notice of the Authority to the Contractor to commence Work under the Contract.

Plans: The drawings, supplemental drawings, or reproductions thereof, the project plans, standard plans, profiles, cross-sections, and all graphic depictions, which show the location, character, dimensions, and details of the work to be performed and contained in the Contract Documents.

Project: The Project is the performance of complete design, plans, construction, installation, and delivery of the entire scope of all work as described in the Contract Documents.

Project Manager: The person or persons designated by the Fire Chief of the Authority to serve as the Project Manager of the project.

Provide: To furnish, fabricate, complete, deliver, install, and erect including all labor, materials, equipment, apparatus, appurtenances, and expenses, necessary to complete in place, ready for operation or use under the terms of the Contract Documents.

Related Work: Work performed by the Authority or by any separate contractor retained or hired by the Authority, related to the completion of the Project and which is not required to be performed by the Contractor pursuant to this Contract and the Contract Documents.

Requests for Information: A request from the Contractor or one of the Subcontractors to the Project Manager seeking an interpretation or a clarification of some requirement of the Contract Documents. Contractor shall clearly and concisely set forth the issue for which Contractor seeks clarification or interpretation and why a response is needed from the Project Manager. Contractor shall set forth Contractor's interpretation or understanding of the Contract Documents' requirements along with reasons why Contractor reached such an understanding. Responses from the Project Manager will not change any requirements of the Contract Documents unless so noted in the Request for Information response.

Scheduled Completion Date The 730<sup>th</sup> calendar day after the Notice to Proceed or such other date as the Contractor and the Authority may mutually agree pursuant to the provisions of this Contract.

Site or Sites: The land on which the Project will be constructed as specifically described in the Contract Documents.

Specifications: The directives, provisions, and requirements contained in Contract Documents, however such may be labeled or otherwise described.

Subcontractor: Any person or entity with whom the Contractor has entered into any subcontract and any other person with whom any Subcontractor has further subcontractor with to perform any of the Work at the Site or to supply any materials, equipment, or supplies to be incorporated in, or utilized in connection with, the Work and as used herein shall include the Subcontractor's authorized representative.

Substantial Completion of the Project: Shall mean and include all of the following: (1) substantial completion of all required Work; (2) suitable to meet the requirements for the issuance of a certificate of occupancy and receipt of all other required approvals of construction from the Local Jurisdictions; (3) in strict accordance with the Contract Documents; and (4) such that Authority may fully utilize the Project for the use for which it is intended.

Supplemental Agreements: The written agreements covering alterations, amendments, or extensions to the Construction Contract and shall include contract change orders.

Work: All the work specified, indicated, shown, or contemplated in the Construction Contract to construct the Project, including all alterations, amendments, or extensions thereto made by Contract Change Order or other written orders of the Project Manager, including each activity, labor, task, service, acquisition, purchase, installation, or action of any kind required to be performed under the terms of this Contract and as specified in the Contract Documents.

## **50.01 THE CONTRACT DOCUMENTS**

- A. The Contractor has carefully examined the site of the work contemplated. The submission of a bid shall be conclusive evidence that the Contractor has investigated and is satisfied as to the conditions to be encountered, and that it is ready, willing and able to complete the design, engineering, construction and delivery of the project as described in the RFP. The Contractor understands and accepts the character, quality, and scope of work to be performed, the quantities of materials to be furnished and as to the requirements of the proposal, plans, specifications and Construction of the project. The Contractor warrants and represents that, in executing the Contract and undertaking the Work, it has not relied upon any oral inducement or representation by Authority, Project Manager, or any of their officers or agents as to the nature of the Work, the Site, the Project conditions or otherwise.
- B. All parts and provisions of the Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. If the Contract Documents do not specifically allow the Contractor a choice as to quality or cost of items to be furnished, but could be interpreted to permit such choice, subject to confirmation or approval by Project Manager, they shall be construed to require the Contractor to provide the best quality. Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
- C. Where conflict exists within or between parts of the Contract Documents, or between the Contract Documents and either applicable industry standards or applicable codes, ordinances, or other legal requirements, the more stringent requirements shall apply; otherwise, the following order of precedence shall be used: the Construction Contract; the Special Conditions of the Contract for Construction; these General Conditions of the Construction Contract; the balance of the Contract Documents, and; the Drawings.
- D. The organization of the Specifications into divisions, sections, and articles, and the arrangement of Drawings, are not intended to influence the Contractor in its division of the Work among Subcontractors or its establishment of the extent of the Work to be performed by any trade.
- E. The Contractor shall request that Project Manager provide any interpretations or clarifications necessary for the proper execution, coordination or progress of the Work. Such interpretations shall be issued by Project Manager in writing for implementation by the Contractor. The Contractor shall make all such requests for interpretation or clarification in such occasional or regular joint coordination meetings as may be mutually determined to be required for such purposes.
- F. The Contract Documents reflect conditions as they are believed to exist, but it is not intended or to be inferred that the conditions as shown thereon constitute a representation by or on behalf of Authority that such conditions actually exist. The Contractor shall inspect the Site and conduct any tests or surveys it deems necessary or desirable prior to the commencement of the Work and shall accept full responsibility for any loss sustained by it as a result of any variances between the conditions as shown in the Contract Documents and the actual conditions revealed during the progress of

the Work or otherwise. The Contract Price shall in no event be increased by reason of any such variance unless otherwise specifically provided herein.

- G. The Contractor shall develop and maintain current "as-built" Plans to be provided to Project Manager in accordance with the Construction Contract and the Contract Documents. Project Manager may inspect and copy such Plans at any time during the course of the Work.
- H. The scope of work is intended to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Construction Contract. Where the plans or specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall provide all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the contract in a satisfactory and workmanlike manner.

#### **50.02 AUTHORITY AND AUTHORITY'S REPRESENTATIVES**

- A. The work will be under the general direction of the Fire Chief. The Project Manager is the authorized representative of the Fire Chief and has complete charge of the work, and shall exercise full control of the work, so far as it affects the interest of the Authority.
- B. The provisions in this General Conditions or elsewhere in the Contract Documents regarding approval or direction by the Fire Chief, the Authority, the Board of Directors, or the Project Manager, or action taken pursuant thereto, are not intended to and shall not relieve the Contractor of responsibility for the accomplishment of the work, either as regards sufficiency or the time of performance, except as expressly otherwise provided herein.
- C. The Project Manager is the Authority's exclusive representative and the sole point of contact for the Contractor with respect to this Project during construction and until the completion of the Project. The Authority's communications with the Contractor shall be exclusively through the Project Manager.
- D. Project Manager shall at all times have access to the Work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- E. The Authority shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.
- F. The Authority will not be responsible for the failure of the Contractor to design, plan, schedule, and execute the Work in accordance with the approved schedule or the failure of the Contractor to meet the Contract Documents completion dates or the failure of the Contractor to schedule and coordinate the work of Contractor's own trades and Subcontractors or to coordinate with other separate contractors.
- G. The Authority will not be responsible for the acts or omissions of the Contractor, or any Subcontractor, or any Contractor's or Subcontractor's agents or employees, or any other persons performing any of the Work.

- H. The Project Manager has the authority to disapprove or reject Work on behalf of the Authority when, in the Project Manager's opinion, the work does not conform to the Contract Documents. Whenever, in the Project Manager's reasonable opinion, it is considered necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, the Project Manager has the authority to require special inspection or testing of any work in accordance with the provisions of the Contract Documents whether or not such work shall then be fabricated, installed, or completed.
- I. The Project Manager has the authority to require special inspection or testing of the Work. However, neither the Project Manager's authority nor any decision made by the Project Manager in good faith whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Authority to the Contractor, or any Subcontractor, or any of their agents, or employees, or any other person performing any portion of the Work.
- J. The Project Manager has the authority and discretion to call, schedule, and conduct job meetings to be attended by the Contractor and representatives of Contractor's Subcontractors, to discuss such matters as procedures, progress, problems, and scheduling.
- K. The Project Manager will establish procedures to be followed for processing all submittals, Change Orders, progress payments, other project reports, documentation, and test reports.
- L. The Project Manager will review all requests for changes and shall implement the processing of Change Orders including application for extensions of time.
- M. The Project Manager will review and process all Progress Payment Requests by the Contractor including Final Progress Payment Requests.
- N. Nothing contained in the Contract Documents shall create any contractual relationship between Project Manager and the Contractor; provided, however, that Project Manager shall be deemed to be a third party beneficiary of those obligations of the Contractor to Authority as imposed by the Contract Documents.
- O. Except as otherwise provided in the Contract Documents, and until the Contractor is notified in writing to the contrary, all actions to be taken by, all approvals, notices, consent, directions and instructions to be given by, all notices and other matters to be delivered to, all determinations and decisions to be made by and, in general, all other action to be taken by, or given to, Authority shall be taken, given and made by, or delivered or given to, Project Manager in the name of and on behalf of Authority. Only those so designated are authorized to grant on behalf of Authority any approval, consent or waiver with respect to the Contract Documents or the Work, or to otherwise act for Authority in any capacity whatsoever.
- P. The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Project Manager in its administration of the Contract, including, without limitation, by any inspections or tests required, or by approvals or other similar action with regard to shop drawings or submittals (of any type), or by the activities of persons other than the Contractor with respect to the Project. Further, notwithstanding the fact that a dispute, controversy or other question may have arisen between the parties hereto relating to the execution or progress of the Work, the interpretation of the Contract Documents, the payment of any monies, the

delivery of any materials or any other matter whatsoever, the Contractor shall not be relieved of its obligations to pursue the Work diligently under the Contract Documents pending the determination of such dispute, controversy, or other question.

- Q. Authority reserves the right, but assumes no duty, to establish and enforce standards, and to change the same from time to time, for the protection of persons and property, with which the Contractor shall comply, and to review the efficiency of all protective measures taken by the Contractor. The exercise of or failure to exercise any or all of these acts by Authority shall not relieve the Contractor of its duties and responsibilities under the Contract Documents, and Authority shall not thereby assume, nor be deemed to have assumed, such duties or responsibilities of the Contractor.

### **50.03 CONTRACTOR**

- A. Composition: If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.
- B. Design, Plans, Specifications, and Site of Project: Contractor has evaluated the feasibility of performing the Work within the time and for the amount set forth in its proposal, accounting for constraints affecting the Project and has reasonable grounds for believing and does believe that such performance is feasible and practicable. Contractor has, prior to submitting its proposal, in accordance with prudent and generally accepted engineering and construction practices, reviewed the Contract Documents, inspected and examined the Site and surrounding locations and undertaken other appropriate activities sufficient to familiarize itself with the surface and subsurface conditions discernible from the surface affecting the Project, to the extent Contractor deemed necessary or advisable for submittal of a proposal. As a result of such review, inspection, examination, and other activities, Contractor acknowledges and agrees that it has been afforded the opportunity to review information and documents and to conduct inspections and test of the Site and surrounding locations as described above. Contractor further acknowledges and agrees that changes in the conditions as the Site may occur after the date hereof, and that Contractor shall not be entitled to any Change Order in connection therewith except as specifically permitted in Section 1.16. Before commencing any Work on a particular aspect of the Project, Contractor shall verify all governing dimension at the Site, and shall examine all adjoining work which may have an impact on such Work. Contractor shall ensure that the all design and construction documents accurately depict all governing and adjoin dimensions and conditions.
- C. Governmental Approvals: Contractor acknowledges and agrees that it has familiarized itself with the requirements of any and applicable Laws and the conditions of any required governmental approvals prior to entering into the Contract. Except as specifically permitted in Section 1.16, Contractor shall be responsible for complying with the foregoing at its sole cost and without any increase in Contract price or extension of any completion deadline on account of such compliance, regardless of whether such compliance would require additional time for the performance of additional labor, equipment and/or materials not expressly provided for in the Contract Documents. Contractor has no reason to believe that any governmental approval required to be obtained by Contractor will not be granted in due course and thereafter remain in effect so as to enable the Work to proceed in accordance with the Contract Documents. If any governmental approvals required to be obtained by Contractor must formally be issued in the name of the Authority, Contractor shall undertake all efforts to obtain such approvals subject to Authority's reasonable cooperation with Contractor, including execution and delivery of appropriate applications and other documentation in a form approved by Authority. Contractor shall assist Authority in obtaining any governmental

approvals which Authority may be obligated to obtain, including providing information requested by Authority and participating in meetings regarding such approvals.

- D. Preparation of Documents: Contractor shall furnish all design and other services, provide all materials and labor and efforts necessary or appropriate (excluding only those materials, services and efforts with the Contract Documents specify will be undertaken by Authority or other persons) including those required to (a) design the Project and prepare all required documentation, (b) to construct the Project and maintain it during construction in accordance with the requirements of the Contract Documents, the Project schedule, all Laws, all governmental approvals, the approved Quality Management Plan, the approved Contractor's Safety Program, the approved construction documents and all other applicable safety, environmental and other requirements so as to achieve final completion by the applicable completion deadlines, and (c) otherwise to do everything required by and in accordance with the Contract Documents. Except as otherwise specifically provided hereinafter under warranties, the Contractor shall not be an agent for the Authority.
- E. Responsibility for Design: Contractor agrees that it has full responsibility for the design of the Project and that Contractor will furnish the design of the Project, regardless of the fact that certain conceptual design work occurred and may have been provided to Contractor prior to the execution of the Contract. Authority does not intend to contract for, pay for, or receive any design services which are in violation of any professional licensing laws, and Contractor acknowledges and agrees that Contractor is fully responsible for furnishing the design of the Project either through its own personnel or through subcontracts with licensed design firm(s). Any references in the Contract Documents to Contractor's responsibilities or obligation to "perform" the design portions of the Work shall be deemed to mean that Contractor shall "furnish" the design for the Project. All design and engineering Work furnished by Contractor shall be performed by or under the supervision of persons licensed to practice architecture, engineering or surveying (as applicable) in the State of California, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the Work in accordance with the Contract Documents and who will assume professional responsibility for the accuracy and completeness of the design documents prepared or checked by them. Contractor and its design subcontractor (if any) shall, throughout the term of the Contract, maintain all required authority, license status, professional ability, skills and capacity to perform the Work, and shall perform them in accordance with the requirements contained in the Contract Documents.
- F. Superintendence: The Contractor shall maintain on the site, during all construction activity, a competent superintendent and any necessary assistants, all satisfactory to the Project Manager. The superintendent shall not be changed except with the consent of the Project Manager, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ, in which case he/she shall be replaced within 24 hours with a superintendent acceptable to the Project Manager. The superintendent shall represent the Contractor and all directions given to the superintendent shall be as binding as if given to the Contractor. The Contractor shall provide Project Manager with complete work history profiles of management staff associated with this Project for Project Manager's review.
- G. Licenses and Certificates: The Contractor shall obtain and possess all necessary licenses and permits required by the laws of the United States, State of California, County of Orange, and any local jurisdiction, and all other appropriate governmental agencies,

and agrees to maintain these licenses and permits in effect for the duration of this Contract. Further, Contractor warrants that its employees, agents, and contractors and subcontractors shall conduct themselves in compliance with all applicable laws and licensure requirements now in effect or as subsequently enacted or modified, as promulgated by any local, state, or federal governmental entities, including, without limitation, compliance with laws applicable to non-discrimination, sexual harassment, and ethical behavior. Contractor shall notify the Project Manager immediately and in writing of its inability to obtain or maintain, irrespective of the pendency of any appeal, any such permits, licenses, approvals, certificates, waivers, and exemptions. Such inability shall be cause for termination of this Contract.

- H. Materials and Equipment: The Contractor shall cause all materials and equipment to be delivered to the Site in accordance with any schedule or schedules therefore established from time to time and approved by Project Manager and, in any event, in a manner which will assure the timely progress and completion of the Work but will not encumber the Site unreasonably. Materials delivered to the Site for incorporation in the Work shall not be removed from the Site without the consent of or unless directed by Project Manager. The Contractor shall give, or shall require its Subcontractors to give, full and accurate quality, performance and delivery status reports, in a form satisfactory to Project Manager, regarding any materials and equipment, or such other data with respect thereto as may be requested by Project Manager, and shall obtain for Project Manager the written assurances of any manufacturer that its material or equipment is designed, and appropriate, for the use intended. The Contractor warrants to Authority that all materials and equipment furnished under this Contract shall be new unless otherwise specified in the Contract Documents and that all Work shall be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not so conforming to these standards may be considered defective. All warranties and guarantees from Subcontractors (including, without limitation, manufacturers) shall be assignable to Authority regardless of whether it is so stated therein, and the Contractor agrees to assign all such warranties and guarantees to the Authority.
- I. Completion Schedule: The Contractor shall prepare and submit, for Project Manager's approval, a Contractor's Construction Schedule for the work which shall provide for expeditious and practicable execution of the work for completion within the Contract Time.
- J. Reports by Contractor: Contractor shall produce and maintain daily reports of the site and construction activities that shall be provided to Project Manager on request. The reports shall follow the Authority approved format including, but not limited to, information regarding trades at work, manpower, weather conditions, construction progress, and solutions to problems.
- K. Contractor Responsibility: The Contractor shall supervise and direct the Work, using its best skill and attention. The Contractor shall be solely responsible for all design, construction means, methods, techniques, sequences, coordination, scheduling and procedures, for all cleanup and for all safety and weather precautions and programs, in connection with the Work. Contractor shall be solely responsible for the work and the Project as described in the Contract Documents. Contractor shall have complete control over the construction methods, techniques, and procedures, except as may be specifically provided in the Contract Documents. Contractor shall, at its sole cost and expense, perform all labor and services and furnish all material, tools, appliances, and equipment necessary and proper for performing and completing the Work of the Project in strict compliance with the terms and conditions of the Contract Documents.

Contractor shall provide all labor, materials, and equipment in conformity with the Contract Documents and other directions as may be provided by the Project Manager.

- L. Ongoing Oversight: Contractor shall keep itself continuously informed of the progress of the Work and the Related Work and will attend all meetings related to the Work and the Related Work as specified in the Contract Documents and as identified in the Contractor's Construction Schedule. Contractor further agrees to work in a prompt, efficient, expert, and diligent manner and to furnish sufficient manpower to complete the Work in accordance with the Contractor's Construction Schedule. Contractor shall prosecute the Work diligently to completion. Contractor shall be responsible for the coordination and scheduling of all Work and the Related Work.
- M. Ongoing Self-Inspection: Contractor shall, at its sole cost and expense, inspect its work to determine strict conformance to the requirements of the Contract Documents. (This obligation of the Contractor is in addition to the Contractor's obligations to make repairs or to remedy deficient or unacceptable work as may be required under the Contract or any other provision of the Contract Documents.) If the Contractor determines that some of the work performed on the Project does not comply with the requirements of the Contract Documents, Contractor shall repair or replace such defective work at its sole cost and expense. Contractor shall gain no protection or right of reliance on the Project Manager's or Fire Chief's inspection of the work. If it is determined that the Project Manager or Fire Chief inspected work and failed to call defects or non-conforming items to the attention of Contractor, the Authority shall not be deemed to have waived the requirements of the Contract Documents or accepted the work.
- N. Monitoring and Compliance: The Project Manager shall, at all times, have safe access to the Project site and its related work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of Contract Documents. All work done and all materials furnished shall be subject to Project Manager inspection. In the event the Project Manager finds or determines that the work or material are not in accordance with the requirements and the intentions of the Contract Documents, the Project Manager shall issue a Non-Conformance Notice. Upon receipt of a Non-Conformance Notice the Contractor shall provide a written Response to the Non-Conformance Notice within five (5) working days after receipt of the Notice. The Contractor's response shall detail either (a) why Contractor believes that the work was performed in accordance with the Contract Documents or (b) what corrective action Contractor intends to take, at its sole cost and expense, to correct the non-conforming work. If Contractor disputes issuance of the Notice, the Project Manager has five (5) working days in which to respond by either (a) withdrawing the Notice of Non-Conformance or (b) directing the Contractor to correct the work. Such determination of the Project Manager shall be final and conclusive of the matter. If directed to correct the work, Contractor shall do so within five (5) working days after receipt of such direction from the Project Manager, or such other time as may be agreed to with the Project Manager.
- O. Inspectors: In addition to the Project Manager, inspectors of Local Jurisdictions are authorized to enforce strict compliance with the terms and conditions of the Contract Documents and to determine the acceptability of materials and workmanship. Inspectors are authorized to reject work or materials if they determine that such work or materials do not conform to the requirements of the Contract Documents. Whenever an inspector determines that some work installed by the Contractor, or any Subcontractor or supplier at any tier does not conform to the requirements of the Contract Documents, a Notice of Non-Conformance will be issued to record this determination. In the event of a dispute between the Contractor and an inspector concerning non-conforming work, the

Contractor shall pursue the issue in accordance with the requirements of Section 1.47 below, relating to Non-Conforming Work. Inspectors are not authorized to issue or direct changes to the requirements of the Contract Documents. In the event that the Contractor believes some direction given by an inspector does constitute a change to the requirements of the Contract Documents, Contractor shall within two (2) days provide written notice to the Project Manager detailing the direction given, by whom, when and under what circumstances, and why the Contractor believes that such direction constitutes a change to the requirements of the Contract Documents. Failure to provide such written notice to the Project Manager within the specified timeframe shall constitute a waiver of claim with respect to the direction received by the Contractor.

- P. Remedy and Repair of Work: The inspection of the work or materials shall not relieve the Contractor of any of the Contractor's obligations to fulfill the requirements of the Contract Documents. Work and materials not meeting the requirements shall be made good, and unsuitable work or materials may be rejected, notwithstanding that the work or materials have been previously inspected by the Project Manager or that payment therefor has been included in a progress payment. All work which has been rejected as indicated in a Non-Conformance Notice shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed to the Contractor for the removal, replacement or remedial work. Payment shall not be made on any portion of the work for which a Non-Conformance Notice has been issued and the work not corrected to the satisfaction of the Project Manager.
- Q. Failure to Comply: Upon failure of the Contractor to comply promptly with any order of the Project Manager made under subsections M, N, O, and P above, the Project Manager, with the approval of the Fire Chief, may cause rejected or unauthorized work to be remedied, removed, or replaced, and to deduct the costs from any moneys due or to become due the Contractor.
- R. Contractor Liabilities: The Contractor shall be responsible to Authority for the acts and omissions of its employees. The Contractor shall be held responsible for all damages resulting from its employees' or its subcontractors' or agents' errors, omissions, or negligence in the performance of the Work and completion of the Project.
- S. Deficiencies in Contract Documents: Contractor covenants and agrees that Contractor, its employees, agents, subcontractors, and suppliers have an affirmative duty and obligation to promptly disclose to the Project Manager any deficiency, error, or inconsistency in the Contract Documents so that Project Manager and the Authority can affect any required or necessary modification thereof in a timely and cost effective manner. Contractor shall not take advantage of any apparent deficiency, error, or inconsistency in the Contract Documents. Should it appear that the Work to be done or any matter relative thereto is not sufficiently detailed or explained in the Contract Documents, Contractor shall apply to the Project Manager in writing for such further written explanations as may be necessary before proceeding with the Work affected thereby and shall conform to the explanation provided. The fact that the Contract Documents omit or misdescribe any details of any Work which is necessary to carry out the intent to the Contract Documents, or which are customarily performed, shall not relieve Contractor from performing such omitted Work (no matter how extensive) or misdescribed details of the Work, and they shall be performed as if fully and correctly set forth and described in the Contract Documents, without entitlement to a Change Order except as agreed to by Authority.

- T. Ongoing Duty to Disclose: If the Contractor, either before commencing work or in the course of the work, finds any discrepancy within the Contract Documents, or between the Contract Documents and the physical conditions at the Site, the Contractor shall promptly notify the Project Manager in writing of such discrepancy. If the Contractor observes that the Contract Documents are at variance with any applicable law, regulation, order, or decree, the Contractor shall promptly notify the Project Manager in writing of such conflict. The Project Manager, on receipt of such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor after the discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, omission, or conflict will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- U. Duty to Coordinate: The Contractor shall be responsible for coordinating any work carried on at the Site by other parties or by the Authority, including the Related Work, simultaneously with the Work. The compensation to be paid to Contractor under this Contract includes any costs which the Contractor may incur as a result of coordinating the Work with such other work, including the Related Work. In no case shall the Contractor be entitled to extra compensation from the Authority for damages suffered as a result of work being carried on at the Site by other parties or the Authority simultaneously with the construction work for this Project. Nevertheless, if such work results in a delay to the Contractor's work beyond reasonable time allocations afforded to such work and Related Work identified on the Contractor's Construction Schedule as approved by the Project Manager, the Contractor may be eligible for an extension of time as specified under Section 1.16 below.
- V. Failure to Pay for Labor or Materials: If Contractor fails to pay for labor or materials when due, Authority may settle such claims by making demand upon the surety to this Agreement. In the event of the failure or refusal of the surety to satisfy said claims, Authority may settle any claims directly and deduct the amount of payments from the Contract price and any amounts due to Contractor. In the event Authority receives a stop notice from any laborer or material supplier alleging non-payment by Contractor, Authority shall be entitled to deduct all of its costs and expenses incurred relating thereto, pursuant to Civil Code section 9358.
- W. Compliance with Laws: The Contractor shall, at its cost and expense, comply with all Laws, as any may now exist or be hereafter changed or added. It shall be the responsibility of the Contractor to familiarize itself with all such Laws, and any performance of the Work by or on behalf of the Contractor which is not in compliance with the Laws shall be at the Contractor's sole risk and expense. The Contractor shall notify Authority prior to execution of the Contract (and, without limiting the continuous duty of the Contractor to advise the Authority) of any instances where the Contract Documents are, or where the Contractor believes the Contract Documents are, not in compliance with the Laws.
- X. Ongoing Responsibility: Any Work or material not specified in the Contract Documents but which by fair implication, in the judgment of the Project Manager, should be included therein, shall be accomplished, furnished, or provided by the Contractor as part of the Project.
- Y. Taxes, Fees, and Licenses: The Contractor shall pay, or cause to be paid, all import duties and sales, consumer, use, excise, value added and ad valorem taxes required to be paid in connection with the Work or upon materials, tools or equipment brought to the Site or used in the Work. If any of the foregoing taxes are not paid in a timely manner, Authority may withhold the amount of any such taxes from any amounts owing to the

Contractor under the Contract Documents, submit the amount so withheld to the appropriate taxing authority on behalf of the Contractor or its Subcontractors or Sub-subcontractors and offset said amount against the Contract Price. The Contractor shall secure and pay for all governmental fees, permits and licenses which Authority is not specifically required to provide and pay for under the Contract Documents.

- Z. Tests: If the Contract Documents, or any laws, ordinances, rules, regulations, or any orders or decrees of any public or quasi-public authority having jurisdiction, or common practice in the industry, require or dictate that the Contractor have any portion of the Work inspected, tested or approved, the Contractor shall advise Project Manager in a timely manner (in writing, if practicable) of its readiness and of the date arranged so that Project Manager may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests and approvals except as otherwise specified. Project Manager may require any special inspection, testing or approval of the Work not included above, or any more stringent inspection, testing or approval thereof, in which event it shall instruct the Contractor to order such inspection, testing or approval, and the Contractor shall advise Project Manager in a timely manner (in writing, if practicable). If such inspection or testing reveals any failure of the Work or the performance thereof to comply with the more stringent of: (a) the requirements of the Contract Documents; (b) applicable industry standards; or (c) applicable laws, ordinances, codes, rules, regulations or orders or decrees of any public or quasi-public authority having jurisdiction, or reveals any defect in the Work, the Contractor shall bear the costs of such inspection or testing and all costs to correct the Work to the satisfaction of Project Manager, which, if incurred by Authority, may be offset by Authority against any amounts then or thereafter due to the Contractor. If such inspection or testing proves that the Work was performed properly, Authority shall bear the costs of such inspection or testing. Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by it to the Project Manager.
- AA. General: The duties and responsibilities of the Contractor as set forth in this Section 1.03 are in addition to, and not in lieu of, other duties and responsibilities of the Contractor enumerated elsewhere in the Contract Documents.
- BB. Ownership of Design: Design and construction documents shall become the property of Authority upon preparation; and other documents prepared or obtained by Contractor or its subcontractors in connection with the performance of its obligations under the Contract, including studies, manuals, as-built drawings, technical and other reports and the like, shall become the property of Authority upon Contractor's preparation or receipt thereof. Copies of all design and construction documents shall be furnished to Authority upon preparation or receipt thereof by Contractor.
- CC. Contractor shall as part of the design of the Project develop and submit to Authority for approval a Quality Assurance/Quality Management Plan. At a minimum, the Quality Assurance/Quality Management Plan will describe the overall policies, program, organizational responsibilities, procedures, and the means of ensuring that all items of Work are in conformance with the Contract Documents. The Plan will also describe the processes, procedures and details of reviews and checks that will be performed on the design of the Project, and the inspections and tests that will be performed on construction materials and workmanship to ensure overall quality of the constructed Project. The Contractor shall also submit the Contractor's Safety Plan to the Authority prior to beginning any construction activities.

#### **50.04 SUBCONTRACTS**

- A. Licensed Subcontractors: Contractor shall not have the right and shall not make any substitution of any listed subcontractor, as set forth in Public Contract Code section 4101, except in accordance with the provisions of the Subletting and Subcontracting Fair Practices Act (Public Contract Code sections 4100 et seq.). Once Contractor has entered into a subcontract valued in excess of 1/2 of 1% of the Contract Price, the Contractor shall not have the right and shall not make any substitution of said subcontractor except in accordance with the provisions of said Act. Each subcontractor selected for the Work shall be licensed in the State of California in the subcontractor's particular field.
- B. Transactions: Transactions with subcontractors shall be made through the Contractor. Authority may assign to the Contractor any contracts or purchase orders entered into between Authority and any other person or organization in any way related to the Project or the Work, at any time, in which event the Contractor shall assume full responsibility for such person or organization and its portion of the Work as if such person or organization was originally a Subcontractor. Such assignment may occur by Change Order or other Modification to the Contract, and any increase in the Contract Price shall be governed by Section 1.16 below.
- C. Writing: All subcontracts and sub-subcontracts shall be in writing. Each subcontract and sub-subcontract shall contain a reference to this Contract and shall incorporate the terms and conditions hereof to the full extent applicable to the portion of the Work covered thereby. Each Subcontractor must agree, for the benefit of Authority, to be bound by, and to require each of its Sub-subcontractors to be bound by, such terms and conditions to the full extent applicable to its portion of the Work.
- D. Responsibility: The Contractor shall be fully responsible to the Authority for the acts and omissions of subcontractors and all persons directly or indirectly employed by them as Contractor is for the acts and omissions of Contractor and of persons - directly or indirectly employed by Contractor and shall pay each subcontractor promptly the amount allowed Contractor on account of such subcontractor's work to the extent of such subcontractor's interest therein.
- E. Incompetent or Disorderly Conduct: If any Subcontractor or person employed by the Contractor shall appear to the Project Manager to be incompetent or to act in a disorderly or improper manner, such person shall be discharged immediately on the request of the Project Manager, and that person shall not again be employed on the Work.
- F. Mandatory Subcontract Terms: Each subcontract shall provide for its termination by the Contractor if, in Project Manager's opinion, the Subcontractor fails to comply with the requirements of the Contract Documents insofar as the same may be applicable to its portion of the Work; and each Subcontractor shall be required to insert a similar provision in each of its sub-subcontracts. In the event of any such failure by a Subcontractor or Sub-subcontractor to comply with the requirements of the Contract Documents, such Subcontractor or Sub-subcontractor, as the case may be, shall be removed immediately from the Work and shall not again be employed on the Work. The Contractor shall be responsible for all costs and expenses arising out of, and shall indemnify Authority on account of any such failure by a Subcontractor or Sub-subcontractor (specifically including, without limitation, a failure to pay for labor (including applicable fringe benefits) or materials).
- G. Contractual Relations: Nothing contained in the Contract Documents shall create any contractual relations between Authority or the Project Manager and a subcontractor. However, it is acknowledged that Authority and Project Manager are intended third

party beneficiaries of the obligations of the Subcontractors and Sub-subcontractors related to the Work and the Project.

#### **50.05 DRAWINGS AND SPECIFICATIONS**

- A. Checking: The Contractor, as part of this Contract, shall be responsible for any errors or omissions in the plans and specifications thereto. Any defect or insufficiency that exists in design, materials, or specified method which is directly or indirectly affected by defect or insufficiency in design, materials, or specified method will be the responsibility of the Contractor and the Contractor shall bear all costs arising therefrom.
- B. Precedence: Figures marked on drawings shall in general be followed in reference to scale measurements. Large scale drawings shall in general govern small scale drawings. Specifications and schedules shall govern over drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors. When measurements are affected by conditions already established, the Contractor shall take measurements notwithstanding the giving of scale or figure dimensions in the drawings. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both.
- C. Shop Drawings: The Contractor shall establish, implement, and supervise the submission of shop drawings and other submittals (of any type) in accordance with the Contractor's Construction Schedule and any milestones. The Contractor shall note any variances between any such shop drawings or other submittals and the Contract Documents for the benefit of Authority at the time of submission. No approval or other similar action regarding any such submission shall be binding in any way upon Authority.
- D. Drawings and Specifications at the Site: The Contractor shall keep available at the site for ready reference a complete set of all contract drawings, details, supplementary drawings and approved shop drawings, a complete copy of the specifications with all addenda, bulletins, amendments, and copies of Project correspondence. The Contractor shall maintain on the site a complete "as built" record set of prints. In addition, the Contractor shall keep on the site as required a copy of each manufacturer's current printed recommendations. Contractor shall also submit a copy to the Project Manager.
- E. Deviations: Deviations from the drawings and the dimensions therein given, whether or not error is believed to exist, shall be made only after written authority is obtained from the Project Manager.

#### **50.06 DIVISIONS OF THE SPECIFICATIONS**

- A. For convenience, the work as described in the Contract Documents are arranged in several divisions and sections, but such separations shall not be considered as the limits of the work required for any subcontract or trade: the terms and conditions of such limitations are wholly between the Contractor and his subcontractors, and the Authority will not be responsible for any division of Work by subcontractors. The Contractor will be solely responsible for all subcontract arrangements of Work regardless of the location of provisions in the specifications.
- B. Schedules of Work included in the sections, where listed, are given for convenience only, and shall not be considered as a comprehensive list of items or work necessary to complete the Work of any section.

- C. Where devices or items or parts thereof are referred to in the singular, it is intended that such reference shall apply to as many devices, items, or parts as are required to properly complete the Work.
- D. Each section of the specifications is covered by applicable requirements of the Contract Documents and other related sections as if therein written.

#### **50.07 SITE CONDITIONS**

- A. Existing Site Conditions: Information respecting the site of the work has been obtained by Authority's representatives and is believed to be reasonably correct, but the Authority does not warrant either the completeness or accuracy of such information, and it is the responsibility of the Contractor to verify all such information.
- B. Changed Conditions: The Contractor shall promptly, and before such conditions are disturbed, notify the Project Manager in writing of:
  - (1) Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or
  - (2) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents. The Project Manager shall promptly investigate the conditions, and if, as a result, finds that such conditions do so materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for performance an equitable adjustment shall be made and the Contract Documents modified in writing accordingly. Any claim of the Contractor for adjustment hereunder shall not be allowed unless Contractor has given notice as above required.
- C. Public Utility Facilities on Project Site: Pursuant to Government Code, Section 4215, the Contractor shall be compensated for the costs of locating and repairing damage to public utility facilities on the Project site which was not due to failure of Contractor to exercise reasonable care, and removing or relocating main or trunk line utility facilities located on the Project site, if such work is required in the Contract Documents or the Project Manager. Such compensation shall also cover the cost of Contractor's equipment necessarily idled during such work. This provision shall not be deemed to require compensation when the presence of existing service laterals or appurtenances can be inferred from the presence of visible facilities such as buildings, meter and junction boxes, on or adjacent to the construction site. If the Contractor discovers such unidentified utility facilities during construction, Contractor shall immediately notify the Project Manager and the utility in writing.
- D. Space at Site: The Contractor shall be allowed reasonable space at the site of the work as available and access thereto and shall confine Contractor operations to the space assigned. The work shall be done without interference with the ordinary use of the fire station. The Contractor shall cooperate with other contractors of the Authority and shall not commit or permit any act which will interfere with the performance of work by any other contractor or employees of the Authority whether at the site or not.

#### **50.08 CONDITIONS AFFECTING THE WORK**

- A. The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the Work, and the general and local conditions which

can affect the Work or the cost thereof. Any failure by the Contractor to do so will not relieve Contractor from responsibility for successfully performing the Work without additional expense to the Authority. The Authority assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of the Contract Documents, unless such understanding or representations by the Authority are expressly stated in the Contract Documents.

#### **50.09 AUTHORITY'S PROPERTY ON SITE**

- A. All fixtures, facilities, equipment, vehicles, furniture, and all other personal property of the Authority located at the job site which are removed in the course of construction of the Project remain the property of the Authority unless express provision to the contrary is made in the Contract Documents, and the Contractor shall exercise reasonable care to prevent loss or damage to said property and shall deliver promptly such property to the place designated by the Project Manager.

#### **50.10 PROTECTION**

- A. The Contractor shall, throughout the performance of the Work, maintain adequate and continuous protection of all Work, all material and supplies, and temporary facilities against loss or damage from whatever cause, shall protect the property of Authority and third parties from loss or damage from whatever cause, and shall comply with the requirements of Authority and its insurers and with all applicable laws, codes, rules and regulations with respect to the prevention of loss or damage to property as a result of fire or other hazards.
- B. The Project Manager may, but shall not be required to, make periodic patrols of the Site as a part of its normal security and safety program. In such event, however, the Contractor shall not be relieved of its aforesaid responsibilities and Authority shall not assume same, nor shall it be deemed to have assumed, any responsibility otherwise imposed upon the Contractor by the Contract.
- C. Until final acceptance of the Work by Authority, the Contractor shall have full and complete charge and care of and, except as otherwise provided in this Subsection, shall bear all risk of loss of, and injury or damage to, the Work or any portion thereof (specifically including Authority-furnished supplies, equipment or other items to be utilized in connection with, or incorporated in, the Work), materials, equipment, and supplies, from any cause whatsoever, subject to the limitations set forth below.
- D. The Contractor shall rebuild, repair, restore, replace, and make good all losses of, and injuries or damages to, the Work or any portion thereof (specifically including Authority-supplied, equipment or other items to be utilized in connection with, or incorporated in, the Work), material, equipment, and supplies before final acceptance of the Work. Such rebuilding, repair, replacement, or restoration shall be at the Contractor's sole cost and expense.
- E. Contractor shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others. Contractor shall comply with the provisions of the Construction Safety Orders issued by the State Division of Occupational Safety & Health. Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction thereof which theretofore may have been accepted.
- F. The Contractor shall maintain continuously adequate protection of all Work from damage and shall protect the Authority's property from injury or loss arising in connection

with the Contract Documents. Contractor shall make good any such damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or representatives of the Authority. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents, and shall maintain reasonable security of the site at all times, if necessary. Contractor shall limit visitors to the site to those necessary for construction and inspections. Visitors for other purposes shall be referred to the Project Manager. Contractor's and subcontractors' employees shall possess means of identification at all times as required by the Project Manager while on the job site.

- G. In an emergency affecting the safety of life or of the Work or of adjoining property the Contractor, without special instruction or authorization from the Authority, is hereby permitted to act at Contractor's discretion to prevent such threatened loss or injury. Contractor shall so act if directed or instructed by the Project Manager. Any dispute as to compensation claimed by the Contractor on account of emergency work shall be determined by agreement as hereinafter set forth.
- H. The Project Manager may notify the Contractor of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately correct such conditions. Such notices, when delivered to the Contractor or Contractor's representative at the site of the Work, shall be deemed sufficient for said purpose. Failure of receipt of such notice from the Project Manager shall not relieve the Contractor of responsibility.
- I. If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to any such stop order shall be made the subject of claim for extension of time or for excess costs or damages to the Contractor. The Contractor will be responsible for ensuring that his subcontractors comply with the provisions of this Article.
- J. Surface or Subsurface water or other fluid shall not be permitted to accumulate in excavations or under the structures. Should such conditions develop or be encountered, the water or other fluid shall be controlled and suitably disposed of by means of temporary pumps, piping, drainage lines and ditches, dams or other methods approved in writing by Authority. The proposed location and coordination of temporary channels and conduits conducting accumulated water from the Site shall be submitted to Project Manager for its prior written approval. All such work shall be done at the sole expense of the Contractor, and in accordance with the Federal National Pollutant Discharge Elimination System (NPDES) and the NPDES General Construction Permit which includes the Contractor's Storm Water Pollution Prevention Plan (SWPPP) pursuant thereto.

#### **50.11 RESPONSIBILITY FOR DAMAGES OR INJURY**

- A. The Authority and all officers and employees thereof shall not be answerable or accountable in any manner: for any loss or damage that may happen to the Work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the Work; for injury to or death of any person either workers or the public; or for damage to property from any cause which might have been prevented by the Contractor, or Contractor's workers, or anyone employed by Contractor.
- B. The Contractor shall be responsible for any liability imposed by law and for injuries to or death of any person or damage to property resulting from defects or obstructions or

from any cause whatsoever during the progress of the Work or at any time before its completion and final acceptance.

- C. The Contractor shall indemnify and save harmless the Authority, its Board of Directors, all officers and employees thereof connected with the work:
- (1) from all claims, suits or actions of every name kind and description, brought for, or on account of, injuries to or death of any person or damage to property resulting from the construction of the Work or by or in consequence of any negligence regarding the Work;
  - (2) use of improper materials in construction of the Work;
  - (3) or by or on account of any act or mission by the Contractor or Contractor's agents during the progress of the Work or at any time before its completion and final acceptance.
- D. In addition to any remedy authorized by law, so much of the money due the Contractor under and by virtue of the Contract Documents as shall be considered necessary by the Authority may be retained by the Authority until disposition has been made of such suits or claims for damages as aforesaid.

#### **50.12 PAYMENTS**

- A. The Authority shall make payments upon the Contract Price in accordance with the Contract Documents.

#### **50.13 ASSIGNMENT**

- A. The Contract Documents, or any obligation thereunder, may not be assigned by the Contractor. Claims for monies due or to become due the Contractor from the Authority under the Contract Documents may be assigned, with the written consent of the Board of Directors, to a bank, trust company, or other financing institution and may thereafter be further assigned or reassigned to any such institution. To effect such assignments, the Contractor, or Contractor's assignee, shall submit a written request to the Board of Directors enclosing a letter from the proposed assignee indicating that it will accept such assignment. Any attempted assignment contrary to provisions of this subsection shall be void.

#### **50.14 OTHER CONTRACTS**

- A. The Board of Directors may undertake or award other contracts for additional work or other work, and the Contractor shall fully cooperate with such other contractors and Authority employees and carefully fit Contractor's own work to such additional work as may be directed by the Project Manager. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by Authority employees.

#### **50.15 WARRANTY / WARRANTY WORK**

- A. One-Year Warranty: The Contractor agrees to maintain and guarantees for a period of twelve (12) months from the date of the issuance of the certificate of acceptance of the Project or the issuance of a temporary certificate of occupancy as requested by the Fire Chief in the Fire Chief's sole discretion, whichever event occurs first, (and for such additional or extended periods for portions of the Work as provided in the Contract Documents), that the completed work is free from all defects due to faulty materials, equipment or workmanship and that Contractor shall promptly make whatever

adjustments or corrections which may be necessary to cure any defects, including repairs or any damage to the Site, Project, Work, or any system installed therein resulting from such defects.

- B. Warranty Work / Normal Response Time: In the event of failure to comply with the above-mentioned conditions within one (1) week after being notified in writing, the Authority is hereby authorized to proceed to have the defects remedied and made good at the expense of the Contractor who hereby agrees to pay the cost and charges therefore immediately on demand.
- C. Warranty Work / Emergency Response Time: If in the opinion of the Authority, defective work creates a dangerous condition, affects the Authority's essential operations / essential use of the facility, affects the safety or preservation of property or personnel, or requires immediate correction or attention to prevent further loss to the Authority, the Contractor shall be required to take corrective action within 24 hours after personal or telephonic notice by the Authority's Property Management Section. If the Contractor cannot be contacted or does not comply with the Authority's request for correction within 24 hours (or a reasonable time as determined by the Authority), the Authority may, notwithstanding the provisions of this article, proceed to make such correction, the cost of which shall be charged against the Contractor who hereby agrees to pay the cost and charges therefore immediately on demand.
- D. Failure to Take Corrective Action: Failure by the Contractor to take corrective action as specified above shall constitute a material breach of this agreement and will result in the Authority taking whatever corrective action it deems necessary including termination of this agreement. All costs resulting from such action by the Authority will be claimed against Contractor or, if necessary, the Contractor's Performance Bond. The Contractor's Performance Bond shall remain in full force and effect through the warranty period.
- E. Alternative Remedy: The performance bond shall remain in full force and effect through the guarantee period or, at the option of the Contractor, a warranty bond in the amount of one hundred percent of the Contract price may be substituted for the performance bond. Such warranty bond must be in a form approved by Authority Counsel, be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety, and must have and maintain, throughout the warranty period, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide.
- F. All Inclusive Remedies: The Contractor's obligations under this clause are in addition to the Contractor's other express or implied assurances contained in the Contract Documents, or state law and in no way diminish any other rights that the Authority may have against the Contractor for faulty materials, equipment, or work.

#### **50.16 EXTRA WORK AND CHANGES**

- A. The Contract Sum as set forth in the Contract includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in this Section 1.16. Authority may extend the time fixed in the Contract Documents for completion of the Project by the number of days reasonably required for Contractor to perform the extra work only if Contractor is actually delayed in the performance of any item of the Project on the critical path by:

1. Any act or neglect of Authority, Project Manager, or any employee, agent, or representative of Authority; or
  2. Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or
  3. Unusually severe weather conditions not reasonably anticipatable for that portion of the County of Orange the site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or
  4. Excusable Transportation Delays; or
  5. Excusable Labor Disputes; or
  6. Acts of God; or
  7. National Emergency, declared by the President of the United States. In the event one or more of the specific situations described above occurs, the Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification acceptable to the Project Manager, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor as determined by Project Manager. The decision of the Project Manager shall be final.
- B. The Project Manager may, at any time, by written order, and without notice to the sureties, make changes in the drawings or specifications of the Contract Documents if within the general scope thereof. A change order shall also be any other written order (including direction, instruction, interpretation or determination) from the Authority which causes any change, provided Contractor gives the Authority written notice stating the date, circumstances and source of the order and that Contractor regards the order as a Change Order.
- C. If any change under this Section 1.16 causes an increase or decrease in Contractor's actual direct cost or the time required to perform any part of the work under this Contract, whether or not changed by any order, the Project Manager may make an equitable adjustment and modify the Contract in writing. No claim for any change shall be allowed for any costs incurred more than fifteen (15) days before the Contractor gives written notice as required below.
- D. No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate pursuant to the provisions of this Section 1.16 and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project by the Scheduled Completion Date or to complete a milestone. Project Manager's decision will be conclusive on the parties to this Contract.
- E. No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract.
- F. No extension of the Scheduled Completion Date or the right on the part of Contractor to secure any such extension pursuant to this Section 1.16 shall prejudice any right

Authority may have under the Contract Documents, or otherwise, to terminate this Contract.

- G. The Contract Price includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in in this Section 1.16.
- H. Project Manager may extend the Scheduled Completion Date by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.
- I. The Authority or the Fire Chief may order modifications or authorize Change Orders for any reason. Such modifications shall be reviewed, evaluated, and processed in the manner specified in this Section 1.16.
- J. Project Manager may at any time, without notice to any surety, by written order make any change in the work within the general scope of the Contract, including, but not limited to, changes in:
  - 1. The Contract Documents (including drawings and designs);
  - 2. The time, method, or manner of performance of the work;
  - 3. The Authority-furnished facilities, equipment, materials, services, or site; or
  - 4. Directing acceleration in the performance of the work.
- K. Except as provided in this Section 1.16, no order, statement or conduct of the Authority or its representatives, including, but not limited to the Fire Chief, and/or Project Manager, shall be treated as a change under this Section 1.16 or entitle Contractor to an equitable adjustment.
- L. If Contractor intends to assert a claim for an equitable adjustment under this Section 1.16, it must, within fifteen (15) days after receipt of a written change order under this Section 1.16 or the furnishing of a written notice hereunder, submit a written statement to the Project Manager setting forth the general nature and monetary extent of such claim. Such claim shall contain the documentation and information as specified herein. The Project Manager may extend the 15-day period so long as the request for the extension is submitted within such 15-day period and only for good and justified cause. Project Manager's decision regarding any request for extension shall be final and binding on all parties.
- M. Claim documentation shall conform to generally accepted accounting principles and all supporting documentation shall be cited by reference, photocopies, or explanation. Supporting documentation may include, but shall not be limited to, general conditions, general requirements, technical specifications, drawings, correspondence, conference notes, shop drawings logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary schedules or time impact analyses, photographs, technical reports, requests for information, field instructions, and all other related records necessary to support Contractor's claim.
- N. Supporting documentation of damages for each claim shall be cited, photocopied, or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the bid; certified, detailed labor records including labor distribution reports, material and equipment

procurement records, construction equipment ownership cost records or rental records, Subcontractor or vendor files and cost records, service cost records, purchase orders, invoices, project as planned and as-built records, general ledger records, variance reports, accounting adjustment records, and any other accounting materials necessary to support Contractor's claim.

- O. Each copy of the claim documentation shall be certified as true and correct and under penalty of perjury by a responsible officer of the Contractor in accordance with the requirements of the Contract Documents.
- P. Should Contractor be unable to support any part of the claim and it is determined that such inability is attributable to falsity of such certification or misrepresentation of fact or fraud on the part of Contractor, the Contractor shall be liable to Authority as provided for under California Government Code Section 12650 *et seq.*
- Q. Disputed work shall be performed as ordered in writing by the Project Manager, so long as the cost of such work is within the authority of the Project Manager as described above, so as to minimize the impact on, and delays to, the Work.
- R. Costs which shall not be allowed or paid in Change Orders or claim settlements under this Contract include, but are not limited to, interest cost of any type other than those mandated by statute; claim preparation or filing costs; legal expenses; the costs of preparing or reviewing proposed Change Orders or change order proposals concerning change orders which are not issued by the Authority; lost revenues; lost profits; lost income or earnings; rescheduling costs; costs of idled equipment when such equipment is not yet at the Site or has not yet been employed on the Work; lost earnings or interest on unpaid retainage; claims consulting costs; the costs of corporate officers or staff visiting the Site or participating in meetings with the Authority; any compensation due to the fluctuation of foreign currency conversions or exchange rates; loss of other business; or any other cost identified as unallowable cost under the provisions of the Federal Acquisition Regulations.
- S. No claim by Contractor for an equitable adjustment shall be allowed if made after final payment under this Agreement. Contractor hereby agrees to make any and all changes, furnish the materials and perform the work that Authority or its Project Manager may require without nullifying this Contract. Contractor shall adhere strictly to the Contract Documents unless a change therefrom is authorized in writing by the Project Manager, subject to the limitations contained herein. Under no condition shall Contractor make any changes to the Project, either in additions or deductions, without the written order of the Authority or its Project Manager and the Authority shall not pay for any extra charges made by Contractor that have not been agreed upon in advance in writing by the Authority. Disputed work shall be performed as ordered in writing by the Authority or the Project Manager and the proper cost or credit breakdowns therefor shall be submitted in accordance with the Contract Documents.
- T. Project Manager is authorized by the Board of Directors to make, by written order, changes or additions to the work within the scope of the Contract Documents. The Parties acknowledge and understand that approval authority for any such written order, changes or additions will vary depending on the scope of the requested change. To determine the appropriate approval process, the Orange County Fire Authority Roles/Responsibilities/Authorities Matrix, as may be amended, shall control.
- U. Labor wage rates shall not exceed the Prevailing Wage Rates supported by payroll records. Equipment rental rates should be based on latest edition of equipment rental

rates published by the State of California Department of Transportation; Division of Construction.

- V. Nothing in this Section shall excuse the Contractor from proceeding with the Contract Documents as changed.

#### **50.17 ORAL MODIFICATION**

- A. No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of the Contract Documents.

#### **50.18 MATERIAL, WORKMANSHIP, AND ACCEPTANCE**

- A. Where materials are specified by reference to standard specifications of the American Society for Testing Materials (A.S.T.M.), Federal Specifications, or others, all applicable provisions of the designated specifications shall be considered as forming a part of the Contract Documents to the same force and effect as if repeated therein.
- B. All work under the Contract Documents shall be performed in a skillful and workmanlike manner. The Project Manager may, in writing, require the Contractor to remove from the work any employee the Project Manager deems incompetent, careless, or otherwise objectionable.
- C. The Contractor shall, without charge, replace any material or correct any workmanship found by the Project Manager not to conform to the Contract Documents, unless in the public interest the Project Manager consents to accept such material or workmanship with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
- D. Unless otherwise provided in the Contract Documents, acceptance by the Authority shall be accomplished by recordation of Notice of Completion which shall be made as promptly as practicable after completion and inspection of all work required by the Contract Documents. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regard the Authority's rights under any warranty or guarantee. Informal procedures such as "punch lists" are not to be deemed final or conditional acceptance.

#### **50.19 TERMINATION FOR DEFAULT & DAMAGES FOR DELAY**

- A. The Contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under the Contract through no fault of the terminating party, provided that no termination may be effected unless the other party is given:
- (1) Not less than ten (10) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate; and
  - (2) An opportunity for consultation with the terminating party prior to termination.
- B. If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in the Contract Documents or any extension thereof, or fails to complete said work within such time, the Board of Directors may, by written notice to the Contractor, terminate Contractor's right to proceed with the work or such part of the work as to which there has been delay. In

such event, the Authority may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completion the work such materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, Contractor and Contractor's sureties shall be liable for any damage to the Authority resulting from Contractor's refusal or failure to complete the work within the specified time.

- C. Fixed and agreed liquidated damages are provided in the Contract Documents, these General Conditions, subsection 1.38 J. If the Authority so terminates the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until such reasonable time as may be required for Final Completion of the Work together with any increased costs occasioned the Authority in completing the work.
- D. The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if the Contractor is actually delayed in the performance of any item of the Project on the critical path by:
  - 1. Any act or neglect of Authority, Project Manager, or any employee, agent, or representative of Authority; or
  - 2. Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or
  - 3. Unusually severe weather conditions not reasonably anticipatable for that portion of the County of Orange where the Project site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or
  - 4. Excusable Transportation Delays; or
  - 5. Excusable Labor Disputes; or
  - 6. Acts of God; or
  - 7. National Emergency, declared by the President of the United States.

The Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor. No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate as provided above and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project by the Scheduled Completion Date. Project Manager's decision will be conclusive on the parties to this Contract. No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract. Project Manager may extend the time indicated for completion of the Project by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.

- E. The rights and remedies of the Authority provided in this Article are in addition to any other rights and remedies provided by law or under the Contract Documents.

#### **50.20 AUTHORITY'S RIGHTS REGARDING WORK**

- A. If the Work or any portion thereof is defective and/or does not conform to the Contract Documents, or if Contractor fails to supply sufficient skilled workers and suitable material, services, or equipment, or if Contractor fails to make prompt payments to Subcontractors or for labor, materials, or equipment, or if Contractor fails to supervise or coordinate the Work, or if grounds exist pursuant to any other provision of the Contract Documents, Project Manager may order Contractor to stop the Work, or any portion thereof, until cause for the order to stop has been eliminated. Project Manager's exercise of this right to stop the Work shall not give rise to any duty on the part of the Project Manager to exercise this right for the benefit of Contractor or any other party. This right to stop the Work pursuant to this Section is in addition to and not in limitation of Authority's rights to terminate this Contract in accordance with the Contract Documents.
- B. Project Manager may at any time and without cause suspend the Work or any portion thereof by written notice to Contractor and a Change Order shall be issued extending the Scheduled Completion Date by the number of days of such suspension. For suspensions of the Work which are fourteen (14) days or less, Contractor shall recommence the Work at the direction of Project Manager with the Contract Price remaining unchanged. Provided Contractor is not in default of the terms of the Contract Documents, if there is a suspension of Work or suspensions which in the aggregate extend beyond fourteen (14) days, Contractor shall recommence the Work at the direction of Project Manager and Contractor and Project Manager shall, at Contractor's written request and through good faith negotiations, equitably adjust the Scheduled Completion Date and any milestones, and shall equitably adjust the Contract Price, in an amount to be approved by the Fire Chief or the Authority, which approval shall not be unreasonably withheld, for each day of such suspension exceeding fourteen (14) days. Adjustments to the Scheduled Completion Date or completion of a milestone shall only be provided to the extent the suspension of Work actually adversely affects the Scheduled Completion Date or completion of a milestone, as determined by Project Manager. The decision of the Project Manager shall be final.
- C. In the event the Project Manager determines that the progress of the Work is behind the progress set forth in the Contractor's Construction Schedule, Project Manager may require Contractor to take such actions as the Project Manager deems necessary to expedite the progress of the Work in conformance with the progress set forth in the Contractor's Construction Schedule. Such actions may include without limitation, increasing the number of workers performing the Work, utilizing overtime work, and requiring additional work shifts. Such action by Project Manager to place Contractor back on schedule shall not be the subject of a Change Order increasing the Contract Price, nor shall Contractor receive any additional compensation for these activities.
- D. Contractor shall cooperate with Authority, Project Manager, and all other persons as Authority may retain or employ for (by way of illustration only) installation of furniture, decoration, and training, and the like at the Project. Contractor acknowledges that it is critical to Authority that separate Contractors are allowed to perform and coordinate the installation of furnishings, fixtures, and equipment not covered by this Contract but necessary for the Project. Contractor covenants to use its best efforts to prevent Authority from suffering delay in completion of the Work as a result of Contractor's failure to cooperate and coordinate its work with Related Work as required by the Contract Documents.

- E. To the extent that Authority timely provides to Contractor information relating to the work of its separate contractors, the interrelationships between the work of separate contractors and/or third parties such as Authority's purchasing agent and any other special consultants shall be indicated on the Contractor's Construction Schedule to allow Authority to provide for proper phasing.

**50.21 CONTRACT PRICE; METHOD OF PAYMENT; RETENTION OF FUNDS**

- A. Authority agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Contract, subject to any subsequent additions or deductions as provided in approved change order the Contract Price.
- B. Progress payments shall be made to the Contractor per month for each successive month as the Work progresses. The Contractor shall be paid such sum as will bring the total payments received since the commencement of the work up to ninety-five percent (95%) of the value of the work completed, less all previous payments, provided that the Contractor submits the request for payment prior to the end of the day required to meet the payment schedule. The Authority will retain five percent (5%) of the amount of each such progress estimate and material cost until 30 days after the recordation of the Notice of Completion.
- C. Application for Partial Payment: The Contractor shall request payment through the preparation and submission to Authority of an Application for Partial Payment. The Application for Partial Payment shall show in detail all monies properly payable to the Contractor, approved by the Project Manager, in accordance with the previously approved activities as identified on the Contractor's Construction Schedule, including those items of labor, materials, and equipment used or incorporated in the Work (and, if Authority has agreed in advance in writing, suitably stored at the Site) through and including the Payment Application Date. The Application for Partial Payment shall have, as attachments, certifications of payrolls, and such other evidence of performance of the Work, the costs thereof and payment therefor as Authority may deem necessary or desirable.
- D. The Contractor warrants that title to all Work, materials and equipment covered by an Application for Partial Payment shall pass to Authority, free and clear of all liens, claims, security interests or encumbrances, upon the sooner occurrence of: (a) the delivery of any such materials or equipment to the Site; or (b) the tender of payment of the applicable Application for Partial Payment by Authority to the Contractor; and that no Work, materials, or equipment covered by an application for Partial Payment shall have been acquired, whether by the Contractor or by any Subcontractor or Sub-subcontractor, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person. The passage of title to Authority as provided herein shall not alter or limit the obligations and duties of the Contractor with respect to the Work and the materials or equipment incorporated therein or used in connection therewith as set forth in the Contract Documents. In this regard, it is specifically noted that neither the Authority, nor its Directors, officers, employees, or agents shall be held responsible in any manner for any loss that may happen to the Work or any part thereof during the course of construction; for any loss or damage to any of the materials, equipment, supplies, or other things used or employed in performing the Work; for injury to or death of any person, either workers or the public; or for damage to property, from any cause that might have been prevented by the Contractor, Contractor's workers, employees, Subcontractors, suppliers, or agents.

- E. If the Contractor has submitted an Application for Partial Payment in the manner prescribed herein, the Project Manager shall, with reasonable promptness, review, approve the same (or such portions thereof covering amounts it determines to be properly due), or shall state in writing its reasons for withholding its approval (whether of all or a part).
- F. The Project Manager's approval of an Application for Partial Payment shall not constitute a representation by Authority that the conditions precedent to the Contractor's entitlement to payment have been fulfilled, nor shall approval of an Application for Partial Payment by Authority be deemed a representation by Authority: (a) that it has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (b) that it has reviewed the construction means, methods, techniques, sequences, coordination or procedures, or the cleanliness of the Site, or the safety precautions and programs, in connection with the Work; (c) that it has made any examination to ascertain how or for what purposes the Contractor has used the monies previously paid on account of the Contract Price.
- G. No approval of an Application for Partial Payment, progress payment or any beneficial, partial or entire use or occupancy of the Project by Authority shall constitute an acceptance of any Work which is not in accordance with the Contract Documents; and regardless of approval of an Application for Partial Payment by Authority, the Contractor shall remain totally obligated and liable for the performance of the Work in strict compliance with the Contract Documents.
- H. Subject to Authority's rights to offset or withhold as set forth in these General Conditions, after Authority has approved an Application for Partial Payment, in whole or in part, it shall make payment of the amount approved to the Contractor as provided in the Contract Documents.

## **50.22 RIGHT TO OCCUPY - BENEFICIAL USE**

- A. Authority reserves the right, prior to Final Completion of the entire Project, to use a portion or portions of the Work when Project Manager determines that such portion or portions may be safe for such use provided such use will not unreasonably interfere with the Contractor's orderly progress of the Work. Such use ("beneficial use") shall not be construed as an acceptance of any such Work, or a part of the Work, as substantially complete, nor shall it affect the dates and times when payments shall become due from the Authority to Contractor, nor shall it prejudice Authority's rights pursuant to the Contract or any bonds guaranteeing the same. Notwithstanding such occupancy or use, Contractor shall continue to provide insurance, security, maintenance, utilities, and protection to the Work, unless otherwise agreed by the parties in writing.
- B. At the sole discretion of the Fire Chief, any time after beneficial use and prior to issuance of a certificate of occupancy by the Local Jurisdictions, the Fire Chief may request one or more of the Local Jurisdictions to issue a temporary certificate of occupancy for a portion or portions of the Project. Upon the issuance of such temporary certificate of occupancy, the Authority may occupy such portion or portions of the Project, and such portions shall be deemed to be substantially complete.
- C. Beneficial Occupancy shall not constitute acceptance by Authority or Project Manager of the completed Work or any portion thereof, shall not relieve the Contractor of its full responsibility for correcting defective Work and repairing the Work, shall not be deemed

to be the equivalent of completion of the Work and shall not entitle the Contractor to any increase in the Contract Price.

- D. Anything in this Section 1.22 to the contrary notwithstanding, Authority may certify any portion of the Work to be occupied or used hereunder to be Substantially Completed and, upon the Contractor's timely completion or correction of the items on the "punch-list" with respect thereto, accept that portion of the Work.

#### **50.23 FINAL COMPLETION AND FINAL PAYMENT**

- A. When all permits for the Work have been approved, accepted, or otherwise signed off as complete by the inspectors of the Local Jurisdictions, Contractor shall certify to the Project Manager in writing within ten (10) days that the Work is complete in accordance with the Contract Documents and is ready for occupancy. Project Manager and Fire Chief will make an investigation and inspection of all phases of the Work. If all contractual obligations have not been met, Project Manager shall furnish Contractor a detailed list of all remaining work (the "Punchlist") and Contractor shall commence correction of all items on the Punchlist. A letter of acceptance shall be issued upon completion of all Work specified on the Punchlist to the satisfaction of the Project Manager. In no case will the letter of acceptance relieve Contractor of any obligations of Contractor that may be outstanding. Within five (5) business days after issuance of a letter of acceptance, Project Manager shall issue a certificate of final completion. Upon receipt of the certificate of final completion, Contractor shall submit its final application for payment ("Final Application for Payment") which shall set forth all amounts due and remaining unpaid to Contractor and upon approval thereof by the Project Manager Authority shall pay to Contractor the amount due under such Final Application for Payment as provided herein.
- B. Before Authority makes the Final Payment to Contractor, all requirements of the Contract Documents shall have been fulfilled, including the following:
1. Receipt by Project Manager of a complete list of Subcontractors and principal vendors, including addresses, telephone numbers, and names of individuals to contact who are familiar with the Project, including Contractor;
  2. Receipt by Project Manager of all operation and maintenance manuals, approved by the Project Manager;
  3. Receipt by Authority of all releases and written guarantees from all Subcontractors and material suppliers for the Project in a form and content satisfactory to the Project Manager, which Contractor hereby agrees to obtain for, and deliver to, Project Manager prior to completion of the Project;
  4. Receipt by Project Manager of all "As-Built" records, approved by Project Manager;
  5. Copies of any other warranties or guarantees received from manufacturers, suppliers, or Subcontractors; and
  6. Evidence satisfactory to the Project Manager showing that the Contractor has promptly and satisfactorily settled all claims, if any, for services performed and materials furnished in connection with the Work.
  7. Receipt by Project Manager of all documentation necessary to demonstrate compliance with the Leadership and Environmental Design program requirements if applicable to Project.
- C. Final Payment shall not become due until Contractor submits to Project Manager: (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which Authority or Authority's property might in any way be responsible, have been paid or otherwise satisfied; (2) the consent of the surety to

Final Payment; and (3) if reasonably required by the Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Project Manager. Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.

- D. The acceptance of Final Payment shall constitute a waiver of all claims by Contractor except those previously made in writing and identified by Contractor as unsettled at the time of the Final Application for Payment.
- E. The making of Final Payment shall constitute a waiver of all claims by Authority except those arising from (1) unsettled claims; (2) faulty or defective Work appearing after Final Completion of the Work; (3) failure of the Work to comply with the requirements of the Contract Documents; (4) terms of any special warranties required by the Contract Documents; (5) "Punchlist" items not yet completed by the Contractor; (6) discrepancies noted in subsequent audits performed by Authority or its agents within one (1) year following Final Payment; or (7) any claims identified by Project Manager as unsettled prior to making of Final Payment.
- F. Final Payment shall not relieve Contractor of its warranty and indemnification obligations pursuant to the Contract Documents, which shall survive such payment.
- G. Contractor shall keep and present within fifteen (15) days after request by Authority or its agents, in a form reasonably approved by the Project Manager, a final itemized accounting of all expenditures made in connection with the Work together with appropriate supporting data.

#### **50.24 SURETY BONDS**

- A. Contractor shall, upon entering into performance of this Agreement, furnish a bond in the amount of one hundred percent (100%) of the Contract price bid, to guarantee the faithful performance of the work, and an additional bond in the amount of one hundred percent (100%) of the Contract price bid to guarantee payment of all claims for labor and materials furnished. The bonds required pursuant to this Section shall be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety and shall have and maintain throughout the life of the Project, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide. This Contract shall not become effective until such bonds are supplied to and approved by the Authority.

#### **50.25 INSURANCE**

- A. Contractor is also aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or undertake self-insurance in accordance with the provisions of that Code and will comply with such provisions before commencing the performance of the work of this Contract.
- B. Contractor and all Subcontractors will carry workers' compensation insurance for the protection of its employees during the progress of the work.
- C. Contractor shall at all times carry, on all operations hereunder, bodily injury, including death, and property damage liability insurance, including automotive operations bodily

injury and property damage coverage; professional liability, and builders' all risk insurance. All insurance coverage shall be in amounts specified by Authority below and shall be evidenced by the issuance of a certificate in a form prescribed by the Authority and shall be underwritten by insurance companies satisfactory to Authority for all operations, subcontract work, contractual obligations, product or completed operations, all owned vehicles and non-owned vehicles.

- D. Said insurance coverage obtained by the Contractor, excepting workers' compensation coverage, shall contain the following provisions, or Contractor shall obtain endorsements on forms approved by the Authority to add the following provisions to the insurance policies: (1) the policy or policies shall name the Authority, its Directors, officers, officials, agents, employees, Project Manager, volunteers and consultants for this Agreement, and all public agencies from whom permits will be obtained and their Directors, elected or appointed officials, officers, agents, and employees, as determined by the Authority, as additional insureds on said policies; and (2) each policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the Authority, its Directors, officers, officials, agents, employees, Project Manager, volunteers or consultants, shall not contribute with the primary insurance. The Worker's Compensation policy shall be endorsed to waive all rights of subrogation against OCFA, its Directors, officers, officials, agents, employees, Project Manager, volunteers and consultants.
- E. Contractor hereby waives all rights of subrogation against Authority, its Directors, officers, officials, agents, employees, Project Manager, volunteers and consultants.
- F. Before Contractor performs any work at, or prepares or delivers materials to, the site of construction, Contractor shall furnish certificates of insurance evidencing the foregoing insurance coverages and such certificates shall provide the name and policy number of each carrier and policy and that the insurance is in force and will not be canceled without thirty (30) days written notice to Authority. Contractor shall maintain all of the foregoing insurance coverages in force until the work under this Contract is fully completed. The requirement for carrying the foregoing insurance shall not relieve Contractor from the provisions for indemnification of Authority by Contractor under Section 1.26 below. Notwithstanding nor diminishing the obligations of Contractor with respect to the foregoing, Contractor shall subscribe for and maintain in full force and effect during the life of this Contract, the following insurance in amounts not less than the amounts specified and issued by a company admitted as an insurer in California and shall have and maintain throughout the life of the Project, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide, except that the Authority will accept State Compensation Insurance Fund for the required policy of Worker's Compensation subject to OCFA's option to require a change in insurer in the event the State Fund financial rating is decreased below "B":

<b>Workers Compensation</b>	In accordance with the Workers' Compensation Act of the State of California, with a minimum of \$2,000,000
<b>Public Liability, in the form of either Comprehensive or General Liability written on a full occurrence basis</b>	Combined single limit of \$5,000,000 per occurrence for bodily injury, death and property damage
<b>Automobile Liability, including non-owned and hired vehicles</b>	Combined single limit of \$1,000,000 on a per occurrence basis.
<b>Errors and Omission Liability</b>	\$2,000,000

<b>Builders' At Risk</b>	Sufficient to cover the total expected cost of the project
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Coverage for commercial general liability and automobile liability insurance shall be at least as broad as the following:

- Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG0001)
- Insurance Service Office (ISO) Business Auto Coverage (Form CA 0001) covering any auto.

- G. Contractor shall either: (1) include all subcontractors engaged in any work relating to this Agreement as additional named insureds under the Contractor's insurance policies, or (2) Contractor shall be responsible for causing its subcontractors to procure, maintain and submit evidence to Authority of insurance of the same types, in the same amounts, and in compliance with the terms of the insurance requirements set forth in this section, including submittal of all required endorsements. All insurance policies provided by Contractor's subcontractors performing any work related to this Agreement shall be endorsed with the endorsements required above. Contractor shall not allow any subcontractor to commence any work relating to this Agreement unless and until it has provided evidence satisfactory to Authority that the subcontractor is covered by all insurance required under this section and all requirement endorsements have been submitted to Authority. Payment under this Agreement for services performed by subcontractors may be withheld by Authority until evidence satisfactory to Authority is provided that the subcontractor has secured all the required insurance is provided to Authority.
- H. Authority or its representatives shall at all times have the right to inspect and receive the original or a certified copy of all said policies of insurance, including certificates. Contractor shall pay the premiums on the insurance hereinabove required.

## **50.26 RISK AND INDEMNIFICATION**

- A. Indemnification: To the fullest extent permitted by law, Contractor shall indemnify, defend (at Contractor's sole cost and expense and with legal counsel approved by Authority, which approval shall not be unreasonably withheld), protect and hold harmless Authority and all of Authority's officers, directors, employees, consultants, agents, successors and assigns (collectively the "Indemnified Parties"), from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other professional, expert or consultants' fees and costs and Authority's general and administrative expenses) of every kind and nature whatsoever (individually, a "Claim"; collectively, "Claims") which may arise from or in any manner related (directly or indirectly) to any work performed or services provided under the Contract Documents (including, without limitation, the negligent and/or willful acts, errors and/or omissions of Contractor, its principals, officers, agents, employees, Contractors, suppliers, consultants, subconsultants, subcontractors, anyone employed directly or indirectly by any of them or for whose acts they may be liable or any or all of them) regardless of any active or passive negligence or strict liability of an Indemnified Party. Contractor understands and acknowledges that the indemnification obligation hereunder is intended to constitute

a "Type I" indemnity under California law and extends to and includes Claims arising from the active or passive negligence of Indemnified Parties. Notwithstanding the foregoing, nothing herein shall be construed to require Contractor to indemnify the Indemnified Parties from any Claim arising from the sole negligence or willful misconduct of the Indemnified Parties.

- B. Duty to Defend: The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend exists regardless of any ultimate liability of Contractor. Such defense obligation shall arise immediately upon presentation of a Claim by any party and written notice of such Claim being provided to Contractor. Payment to Contractor by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. Contractor's indemnification obligation hereunder shall survive the expiration or earlier termination of this Agreement until such time as action against the Indemnified Parties for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations or statute of repose. Contractor's liability for indemnification hereunder is in addition to any liability Contractor may have to Authority for a breach by Contractor of any of the provisions of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Contractor's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party shall not be employed in the interpretation of this Agreement.
- C. Notwithstanding the foregoing, and only to the extent that the Work performed by Contractor is subject to California Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Contractor.

## **50.27 TERMINATION**

- A. The performance of work under the Contract Documents may be terminated in whole, or from time to time in part, whenever the Board of Directors shall determine that such termination is in the best interest of the Authority. provided that the Contractor is given (1) Not less than ten (10) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate; (2) the extent to which performance of work under the Contract Documents is terminated; (3) the date upon which such termination becomes effective; and (4) An opportunity for consultation with the terminating party prior to termination.
- B. This Contract may be terminated, or the right of the Contractor to complete the Project may be terminated, without liability or damage, when in the Authority's opinion, the Contractor is not complying with the Contract requirements in good faith, has become insolvent, or has assigned or subcontracted any part of the Work without the Authority's consent. In the event of such termination, the Contractor will be paid the actual amount due based upon the quantity of work completed at the time of termination, less damages caused to the Authority by acts of the Contractor causing the termination. The Contractor, in having tendered a bid, shall be deemed to have waived any and all claims for damages because of termination of the Contract or the right of the Contractor to complete the Project for any cause stated in this Section 1.27.

- C. If termination is effected by the Authority, an equitable adjustment in the price provided for in this Contract shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the Contractor at the time of termination may be adjusted to cover any additional costs to the Authority because of the Contractor's default. The equitable adjustment for any termination shall provide for payment to the Contractor for services rendered and expenses incurred in accordance with Section 8 of the California, Department of Transportation Standard Specifications.
- D. After receipt of a Notice of Termination, and except as otherwise directed by the Board of Directors, the Contractor shall:
- (1) Stop Work under the Contract Documents on the date and to the extent specified in the Notice of Termination;
  - (2) Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the Work under the Contract Documents as is not terminated;
  - (3) Terminate all orders and subcontracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;
  - (4) Assign to the Authority, all of the right, title and interests of the Contractor under the orders and subcontracts so terminated, in which case the Authority shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;
  - (5) Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, subject to the approval of the Board of Directors;
  - (6) Complete performance of such part of the Work as shall not have been terminated by the Notice of Termination;
  - (7) Deliver or otherwise make available to the Authority all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the Contractor in performing this Contract whether completed or in process;
  - (8) Take such action as may be necessary, or as the Project Manager may direct, for the protection and preservation of the property related to the Contract Documents which is in the possession of the Contractor and in which the Authority has, or may acquire, interest.
- E. After receipt of a Notice of Termination, the Contractor shall submit to the Project Manager a verified termination claim. Such claim shall be submitted promptly but in no event later than six (6) months from the effective date of termination, unless one or more extensions in writing are granted by the Board of Directors upon request of the Contractor made in writing within such one-year period or authorized extension thereof.
- F. If any dispute concerning a question of fact arising under the terms of this Contract is not disposed of within a reasonable period of time by Contractor and Project Manager, such matter shall be brought to the attention of the Authority. If agreement cannot be reached through this application, either party may assert its other rights and remedies within this Contract or within a court of competent jurisdiction. The Parties agree that, in the event of a dispute notwithstanding, they will continue without delay to carry out all their responsibilities under this Contract. The Contractor and the Board of Directors may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this Article, which amount or amounts may include a reasonable allowance for profit on work done; provided, that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further

reduced by the contract price of work not terminated. The Contract Documents shall be amended accordingly, and the Contractor shall be paid the agreed amount.

**50.28 PATENT INFRINGEMENT**

- A. The Contractor shall report to the Project Manager, promptly and in reasonable detail, each notice or claim of patent infringement based on the performance of the Contract Documents of which the Contractor has knowledge.
- B. In the event of any suit against the Authority, or any claim against the Authority made before suit has been instituted, on account of any alleged patent infringement arising out of the performance of the obligations under the Contract Documents, or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall, at Contractor's own expense, furnish to the Authority, upon request, all evidence and information in possession of the Contractor pertaining to such suit or claim. The Contractor further agrees to indemnify and hold harmless the Authority against any and all claims or lawsuits based upon such patent infringement, to defend such suits, and to pay any judgment rendered against authority, its employees, or the Board of Directors.

**50.29 NO WAIVER BY AUTHORITY**

The failure of the Authority in any one or more instances to insist upon strict performance of any of the terms of the Contract Documents or to exercise any option herein conferred, shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion.

**50.30 DISPUTES**

- A. In the event of a dispute between the parties as to performance of the work, the interpretation of the Contract Documents, or payment or nonpayment for work performed, the parties shall attempt to resolve the dispute. Pending resolution of the dispute, the Contractor shall continue the work diligently to completion as directed by Project Manager. If the dispute is not resolved, the Contractor agrees Contractor will neither rescind the Contract Documents nor stop the progress of the work.
- B. Except as otherwise provided herein, the Authority and the Contractor shall comply with the provisions of California Public Contracts Code Section 20104 *et seq.*, re resolution of construction claims for any claims which arise between the Contractor and the Authority.

**50.31 ATTORNEYS' FEES**

If any action at law or in equity is necessary to enforce or interpret the terms of the Contract Documents, each party shall be responsible for their respective costs, including attorneys' fees. The prevailing party shall not be entitled to recover its attorneys' fees or related costs. Nevertheless, if any action is brought against the Contractor or any Subcontractor to enforce a Stop Notice or Notice to Withhold, which named the Authority as a party to said action, the Authority shall be entitled to reasonable attorneys' fees, costs and necessary disbursements arising out of the defense of such action by the Authority. The Authority shall be entitled to deduct its costs for any Stop Notice filed, whether court action is involved or not.

**50.32 CONTRACTOR'S EMPLOYEES COMPENSATION**

- A. General Prevailing Rate: Authority has been advised by the State of California Director of Industrial Relations of the Director's of the general prevailing rate of per diem wages and the general prevailing rate for legal holiday and overtime work in the locality in

which the work is to be performed for each craft or type of work needed to execute this Contract, and copies of the same are on file in the Office of the Engineer of Authority. The Contractor agrees that not less than said prevailing rates shall be paid to workers employed on this public works contract as required by Labor Code Section 1774 of the State of California.

- B. Forfeiture For Violation: Contractor shall, as a penalty to the Authority, forfeit Two Hundred Dollars (\$200.00) for each calendar day or portion thereof for each worker paid (either by the Contractor or any subcontractor under it) less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Sections 1770-1780 of the California Labor Code for the work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California.
- C. Apprentices: Sections 1777.5, 1777.6 and 1777.7 of the Labor Code of the State of California, regarding the employment of apprentices is applicable to this Contract and the contractor shall comply therewith if the prime contract involves Thirty Thousand Dollars [\$30,000.00] or more or twenty (20) working days, or more; or if contracts of specialty contractors not bidding for work through the general or prime contractor are Two Thousand Dollars [\$2,000.00] or more or Five (5) working days or more.
- D. Workday: In the performance of this Contract, not more than eight (8) hours shall constitute a day's work, and Contractor shall not require more than eight (8) hours of labor in a day from any person employed by him hereunder except as provided in Section 14.2 above. Contractor shall conform to Article 3, Chapter 1, Part 7 (Sections 1810 et seq.) of the Labor Code of the State of California and shall forfeit to the Authority as a penalty, the sum of twenty-five Dollars (\$25.00) for each worker employed in the execution of this Contract by Contractor or any Subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one week in violation of said Article. Contractor shall keep an accurate record showing the name and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Project.
- E. Record of Wages; Inspection: The Contractor and each subcontractor performing any portion of the work under the Contract Documents shall keep an accurate record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor in connection with the work. Said payroll records shall be certified and shall be available for inspection at the principal office of the Contractor on the basis set forth in Labor Code Section 1776. The Contractor shall file a certified copy of said payroll records with the Authority within ten days after receipt of a written request therefor from Project Manager or otherwise from the Authority. The Contractor shall inform the Authority of the location of said payroll records, including the street address, city and state, and shall, within five working days, provide a notice of change of location and address of said payroll records. It shall be the responsibility of the Contractor to ensure the compliance with the provisions of this Article and the provisions of Labor Code Section 1776. In the event of noncompliance with the requirements of this Article or the requirements of Labor Code Section 1776, the Contractor shall have ten days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply. Should noncompliance exist after said ten-day period, the Contractor shall, as a penalty to the Authority, forfeit Twenty-five Dollars (\$25) for each calendar day, or portion thereof, for each worker to whom the noncompliance pertains until strict compliance is effectuated. The Contractor acknowledges that, without limitation as to other remedies of enforcement

available to the Authority, upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the California Department of Industrial Relations, such penalties shall be withheld from progress payments then due the Contractor.

### **50.33 SAFETY & HEALTH**

- A. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all precautions and follow all procedures for the safety of, and shall provide all protection to prevent injury to, all persons involved in any way in the Work and all other persons, including, without limitation, the employees, agents, guests, visitors, invitees and licensees of Authority who may be involved. These precautions shall include, but in no event, be limited to the:
1. Provisions of Local, State and Federal Regulations.
  2. Posting of danger signs and personal notification to all affected persons of the existence of a hazard, of whatever nature.
  3. Furnishing and maintaining of necessary traffic control barricades and flagman services.
  4. Use or storage of required explosives or other hazardous materials only under the supervision of qualified personnel.
  5. Maintenance of adequate quantities of operable fire protection equipment at the Work Site, as required by Local and /or State regulations.
- B. The Contractor shall set forth in writing its site-specific safety precautions and programs in connection with the Work, including an Anti-Substance Abuse Program which meets or exceeds any and all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to the:
1. California Occupational Safety and Health Act of 1973, as amended, and rules and regulations now or hereafter in effect pursuant to said Act.
  2. California Code of Regulations, Title 8, as amended.
  3. The Labor Code of the State of California, as amended.
  4. Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act.
  5. Code of Federal Regulations, Title 29, as amended.
  6. The Drug-Free Workplace Act of 1988. In the event of conflicting requirements, the more stringent shall govern and if requested by Authority, submit the same to Authority for review. Authority may, but shall not be obligated to, make suggestions and recommendations to the Contractor. Authority shall review and approve the Contractor's Site Specific Program.
- C. All work, whether performed by the Contractor or its Subcontractors, of all tiers or anyone directly or indirectly employed by any of them, and all equipment, machinery, materials, tools and like items incorporated or used in the Work, shall be compliance with and conform to:
1. All applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and

- regulations now or hereafter in effect pursuant to said Act, and California Code of Regulations, Title 8, as amended; and,
2. All codes, rules, regulations and requirements of Authority and its insurance carriers relating thereto. In the event of conflicting requirements, the more stringent shall govern.
- D. The Contractor shall designate a responsible and qualified member of its organization at the Work Site who has the authority to enforce the Contractor's Safety and Anti-Substance Abuse Programs, to assure compliance with said programs and to prevent accidents.
- E. The Contractor shall have a safety representative. The Contractor's safety representative will have:
1. The authority to stop work when safety problems are identified.
  2. The authority to implement corrective actions.
  3. Extensive training in safety and loss control practices regarding the Contractor's type of work.
  4. Certification in the OSHA Construction Outreach 10/30 Hour Program.
  5. Certification in first-aid and CPR.
- F. The Contractor shall require its Subcontractors of all tiers to designate a competent and responsible safety representative to assist the Contractor's representative in the performance of his or her duties.
- G. Should the Contractor fail to provide a safe work environment in accordance with the Contract Documents, Authority or Project Manager shall have the right, but not the obligation, to suspend Work in the unsafe area. All costs of any nature resulting from the suspension, by whomsoever incurred, shall be paid by the Contractor.
- H. After a Contractor has been awarded the construction contract for the Project, it will be required to attend a pre-construction safety meeting. The purpose of the meeting is to review the Project's Safety Program and requirements. At this time, specific safety concerns related to the Contractor's work will be discussed.
- I. If deemed necessary by the Project Manager or Project Safety Coordinator, or other Authority representative, a written Job Safety Analysis (JSA) will be required of the Contractor. The JSA will be required for frequency and severity exposures such as steel erection, deep excavations, spray painting, crane handling of large/expensive equipment, etc. This is to ensure that appropriate controls are established prior to work beginning.
- J. Workplace violence (Type III), verbal intimidation or threats to the Project Manager, Authority or designee will result in immediate removal from the Project. Contractor shall develop and implement a workplace violence policy and procedure.
- K. The Contractor shall provide, or cause to be provided, each worker on the Site the proper safety equipment for the duties being performed by that worker and will not permit any worker on the Site who fails or refuses to use the same. Authority and/or Project Manager shall have the right, but not the obligation, to order the Contractor to send a worker off the Site for the day or to require the contractor to not allow the worker any further work on Authority's site for his or her failure to comply with safety practices, with which order the Contractor shall promptly comply.

- L. The Contractor shall defend, indemnify, and hold the Project Manager, Authority, and their respective officers, directors, agents, employees, and assigns harmless from and against any and all liability, public or private, penalties, contractual or otherwise, losses, damages, costs, attorneys' fees, expenses, causes of action, claims or judgments resulting either in whole or in part from any failure of the Contractor, or its Subcontractors, of all tiers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, to comply with provisions of the Contract Documents, including but not limited to all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act. The Contractor shall not be relieved of its responsibilities under this Subsection L should Authority act or fail to act pursuant to its rights hereunder, nor shall Authority thereby assume, nor be deemed to have assumed, any responsibilities otherwise imposed on the Contractor by this Contract, by virtue of providing Authority's Safety Policies & Procedures, or any other manner whatsoever.
- M. The Contractor shall not raise a defense as to its obligation to indemnify under Subsection L above any contributing negligence of any of those indemnified hereunder, it's being understood and agreed that no such contributing negligence shall relieve the Contractor from its liability to so indemnify nor entitle the Contractor to any contribution, either directly or indirectly, by those indemnified hereunder.
- N. In any and all claims against those indemnified hereunder by any employee of the Contractor or its Subcontractors of all tiers, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Section 1.33 shall not be limited in any way to any limit on the amount or type of damage, compensation or benefits payable by or for the Contractor or its Subcontractors of any tiers under any Worker's Compensation Acts, Disability Benefit Acts or other Employee Benefit Acts.
- O. In connection with the performance of this contract, Authority shall have the authority to enter the worksite at any time for the purpose of identifying the existence of conditions, either actual or threatened, that may present a danger or hazard to any and all employees. Contractor agrees that Authority, in its sole authority and discretion, may order the immediate abatement of any and all conditions that may present an actual or threatened danger or hazard to any and all employees at the worksite. Contractor acknowledges that provisions of Section 6400 of the California Labor Code, which requires that employers shall furnish employment and a place of employment that is safe and healthful for all employees working therein. In the event Authority identifies the existence of any condition that presents an actual or threatened danger or hazard to any or all employees at the worksite, Authority is hereby authorized to order the immediate abatement of that actual or threatened condition pursuant to this Section. Authority may also, at its sole authority and discretion, issue an immediate stop work order to Contractor to ensure that no employee working at the worksite is exposed to a dangerous or hazardous condition. Any stop work order issued by Authority to Contractor in accordance with the provisions of this Section, shall not give rise to any claim or cause of action for delay damages by Contractor or Contractor's agents or subcontractors against Authority.

#### **50.34 NON-DISCRIMINATION**

- A. Contractor covenants that, by and for itself, its successors, and assigns, including its Subcontractors and suppliers, that there shall be no discrimination against or segregation of, any person or group of persons on account of race, color, creed,

religion, gender, marital status, national origin, sexual orientation, or ancestry in the performance of this Contract. Contractor shall take steps to ensure that applicants for any job and that employees are treated without regard to their race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry in full compliance with applicable federal, state, and local laws and regulations.

- B. Contractor shall not engage in, nor permit its agents, including its Subcontractors and suppliers, to engage in discrimination in employment of persons or provision of services or supplies, on the grounds of race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry.
- C. Contractor, and Contractor's Subcontractors and suppliers, shall employ fair employment practices with regard to all employees and all applicants for employment and shall act in accordance with all applicable federal, state, and local laws and regulations relating to such fair employment practices. In furtherance of such obligation, Contractor agrees that Contractor, Subcontractors, and suppliers shall not discriminate in employment and/or provision of services under this Contract and all employment practices shall be without regard to a person's race, color, creed, religion, gender, national origin, age, ancestry, physical handicap, medical condition, marital status, all in accordance with applicable federal, state, and local laws or regulations. Fair employment practices shall include, but not be limited to, employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other form of compensation and selection for training including apprenticeship.
- D. In the performance of the terms of the Contract Documents, Contractor agrees that Contractor will not engage in nor permit such subcontractors as Contractor may employ to engage in discrimination against any employee or applicant for employment on the basis of race, sex, color, religion, ancestry, national origin, marital status, age or as an otherwise qualified handicapped individual. This prohibition shall pertain to employment, upgrading, demotion, or transfer, recruitment advertising, layoff or termination, rates of pay and other forms of compensation, selection for training, including apprenticeship, and any other action or inaction pertaining to employment matters.

#### **50.35 ASSIGNMENT OF ANTITRUST ACTIONS**

- A. In accordance with Public Contract Code Section 7103.5, by entering into the Contract Documents or into a subcontract to supply goods, services, or materials pursuant to the Contract Documents, the Contractor, or subcontractor, offers and agrees to assign to the Authority all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract Documents or the subcontract. This assignment shall be made and become effective at the time the Authority tenders final payment to the Contractor, without further acknowledgment by the parties. The contractor shall cause to be inserted in any such subcontract stipulations to effectuate this Article and the provision of Public Contract Code Section 7103.5.

#### **50.36 SUBSTITUTED SECURITY**

- A. In accordance with Section 22300 of the Public Contract Code, the Authority will, at the request and expense of the Contractor, accept securities equivalent to any amount withheld by the Authority to ensure performance under the Contract Documents. Such

substituted security must meet the requirements of said Section 22300 and will be subject to a written escrow agreement among Authority, Contractor, and escrow agent, which Agreement shall be in the form set forth in Public Contract Code, Section 22300.

**50.37 TIME OF COMMENCEMENT; TIME IS OF THE ESSENCE**

- A. Commencement: Contractor agrees to commence the Project within 10 calendar days from the date the Notice to Proceed and Contractor shall diligently prosecute the work to Final Completion no later than the Scheduled Completion Date, excluding modifications for delays caused or authorized by the Authority as set forth in Section 1.16.
- B. Construction Schedule: Within 30 days of the Award of the Contract, Contractor shall furnish to the Project Manager one reproducible, three prints, and an electronic or digital copy in a format approved by the Project Manager of the Contractor's Construction Schedule. Upon submission by Contractor, and approval by the Project Manager, the Contractor's Construction Schedule shall become part of the Contract Documents and shall be deemed the baseline schedule. The Contractor's Construction Schedule shall identify and specify scheduling for the Work based on the critical path method (or other scheduling method acceptable to the Project Manager) and updating thereof, and shall provide other schedules that would further the efficient completion of the Project, including the Work and the Related Work in the most expeditious and economical manner. The Contractor's Construction Schedule shall depict in detail the sequence and timing of all activities of the Work and Related Work, including, without limitation, commencement and Completion Dates of milestones and for all other significant portions of the Work and Related Work. The Contractor's Construction Schedule shall be updated at least monthly, except that the Scheduled Completion Date shall not be changed or modified unless otherwise approved by the Project Manager pursuant to the terms of the Contract Documents.
- C. Progress Reports: Concurrently with its submission of Applications for Partial Payment, Contractor shall provide the Project Manager with a report (1) detailing the actual progress of the Work and Related Work as of the date of such report; (2) stating any discrepancies between the actual progress of the Work and Related Work; (3) identifying the progress anticipated by the Contractor's Construction Schedule as of the date of such reports; and (4) if required or requested by the Project Manager, a recovery schedule to place the Work and Related Work back on schedule, at no cost to the Authority. The Contractor's Construction Schedule shall include milestones for each aspect of the Work and the timing for completion of Related Work that could affect completion of the Work by the date listed in the Contractor's Construction Schedule.
- D. TIME IS THE ESSENCE OF THIS CONTRACT: NOTWITHSTANDING AUTHORITY'S APPROVAL OF ANY UPDATED CONTRACTOR'S CONSTRUCTION SCHEDULE, THE SCHEDULED COMPLETION DATE SHALL BE STRICTLY ADHERED TO DURING THE TERM OF THIS CONTRACT. THE SCHEDULED COMPLETION DATE MAY ONLY BE CHANGED AS PROVIDED IN THE CONTRACT DOCUMENTS.
- E. Ongoing Responsibility of Contractor: As required by the Contract Documents, Contractor shall prepare and obtain approval of all shop drawings, submittals, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with the Contract Documents and Contractor's Construction Schedule. Contractor shall coordinate the Work with the Related Work

through the Project Manager, in a manner that will facilitate the efficient completion of the Project in accordance with the Contract Documents.

- F. Control of the Site and Order of Work: Contractor shall have control of the Site and shall have the right to decide the time or order in which the various portions of the work shall be constructed or installed consistent with the Contractor's Construction Schedule and shall establish the priority of the work of Subcontractors of the Work and the Related Work, and, in general, all matters representing the timely and orderly completion of the Project.
- G. Cooperation: Notwithstanding the Scheduled Completion Date, Contractor will cooperate with the Authority and the Authority's separate contractors, consultants, and employees and Contractor agrees to provide for and coordinate access to the Project prior to the Scheduled Completion Date.
- H. IT IS SPECIFICALLY AGREED THAT CONTRACTOR ASSUMES THE RISK OF NONPERFORMANCE, LATE PERFORMANCE, AND NONCOMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY CONTRACTOR, CONTRACTOR'S SUBCONTRACTORS, SUPPLIERS, AND AGENTS. CONTRACTOR SHALL NOT BE ENTITLED TO AN EXTENSION OF THE SCHEDULED COMPLETION DATE FOR THE ABOVE STATED REASONS OR ANY OTHER REASONS, EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THE CONTRACT DOCUMENTS.
- I. Notification of Inability to Comply: If the Contractor, at any time, ascertains that for any reason it is unable to complete the phases of the Work by the milestones, or complete the Project by the Scheduled Completion Date, Contractor shall promptly and without delay notify the Project Manager in writing of this fact.
- J. Liquidated Damages: The Parties acknowledge and agree that if Contractor fails to achieve Final Completion of the Project by the Scheduled Completion Date as such date may be extended in accordance with the Contract Documents, Authority will suffer, as a result of Contractor's failure, substantial damages which are both extremely difficult and impracticable to ascertain. Therefore the Parties having reasonably endeavored, but failed, to ascertain an amount bearing a reasonable relationship to the actual damage that Authority will incur if Contractor fails to achieve Final Completion of the Project by the Scheduled Completion Date as such date may be extended in accordance with the Contract Documents, agree that in addition to all other damages to which Authority may be entitled, Contractor agrees to pay to Authority as liquidated damages, and not as a penalty but as a reasonable estimate of the amount of damages Authority will suffer, the amount of Ten Thousand Dollars (\$10,000.00) per day for each calendar day occurring after the Scheduled Completion Date that Contractor fails to achieve Final Completion.
- K. Additional Remedies: The Parties also acknowledge and agree that Authority is entitled to any and all legal and equitable remedies Authority may have where Authority's damages are caused by any other reason than Contractor's failure to achieve Final Completion by the Scheduled Completion Date.

#### **50.38 AUDIT AND ACCESS TO RECORDS**

- A. Contractor shall maintain all books, records, documents, and other evidence directly pertinent to the performance of the Work under the Contract Documents in accordance with generally accepted accounting principles and practices consistently applied. Contractor shall also maintain all financial information and data used by the

Contractor in the preparation or support of any cost submission, including the Contractor's original bid required for this Contract, or any Change Order, claim, or other request for any adjustment, and a copy of the cost summary or information submitted to the Authority. The Project Manager or the Fire Chief shall have access upon twenty-four hours advanced written notice, at all times during normal business hours, to all such books, records, documents, financial information, and all other evidence for the purpose of inspection, audit, and copying. The Contractor shall, at no cost to the Authority, provide proper facilities for such access, inspection, and copying purposes.

- B. The Parties agree that the provisions of this Section 1.39 are applicable to Contract Documents and all Change Orders, claims, and any other request for adjustment affecting the time or price of this Contract. The Contractor agrees to include the provisions of this Section in all Subcontracts and purchase orders, at any tier, and make this Section applicable to all Change Orders, claims, and other requests for adjustment related to Project performance by Contractor's Subcontractors and suppliers.
- C. Audits conducted under this Section shall be in accordance with generally accepted auditing standards and established procedures and guidelines.
- D. The Contractor agrees to the disclosure of all information and reports resulting from access to records under the provisions of this Section to the Authority, the Fire Chief, the Project Manager, and any affected or interested state or local agency.
- E. Records under the provisions of this Section shall be maintained and made available during the performance of the Work under this Contract until three years past final payment and until final settlement of all disputes, claims, or litigation, whichever occurs later. In addition, those records which relate to any portion of this Contract to any Change Order, dispute, litigation, settlement of any claim arising out of such performance, or to the cost of items to which an audit exception has been taken, shall be maintained and made available until final payment or final resolution of such dispute, litigation, claim, or exception, whichever occurs later.
- F. These rights to access provisions as provided in this Section apply to all financial records pertaining to this Contract and all Change Orders and claims. In addition, this right to access applies to all records pertaining to all contracts, Change Orders, and any amendments to the Contract: (1) To the extent the records pertain directly to Contract performance; (2) If there is any indication that fraud, gross abuse, or corrupt practices may be involved; or (3) If the Contract is terminated for default or convenience.
- G. Access to records is not limited to the required retention periods. The Fire Chief shall have access to records at any reasonable time for as long as the records are maintained.

#### **50.39 AUTHORITY OFFICERS AND EMPLOYEES; NON-DISCRIMINATION**

- A. No member, officer, member of the Authority Board of Directors, or employee of the Authority shall be personally liable to Contractor, or any successor in interest, in the event of any default or breach by Authority or for any amount which may become due to Contractor or to its successor, or for breach of any obligation of the terms of this Contract.
- B. Pursuant to the provisions of the Authority's conflict of interest code, the Political Reform Act as set forth in Government Code Section 81000 *et seq.*, and/or the prohibition against self-dealing in contracts as set forth in Government Code Section 1090 *et seq.*, the Parties acknowledge that no officer or employee of the Authority, or any member of the Authority Board, shall have any personal interest, direct or indirect, in this Contract or

any Subcontract under the Contract, nor shall any such officer, employee, or member of the Authority Board participate in any decision relating to the Contract which effects his or her personal interest or the interest of any corporation, partnership, or association in which he or she is, directly or indirectly, interested. In the furtherance of such acknowledgement, Contractor:

1. Agrees that no officer, employee, member of the Authority Board of Directors, agent, or assignee of the Authority having direct or indirect control of any monies allocated by Authority to finance this Project, shall serve as an officer, director, employee, or agent of Contractor, or as an officer, director, employee, or agent of any Subcontractor or supplier of Contractor under this Contract.
  2. In addition, any conflict or potential conflict of interest of any officer, director, employee, or agent of Contractor or any Subcontractor or supplier of Contractor has been fully disclosed to the Authority prior to execution of this Contract and such disclosure shall be deemed a part of this Contract.
- C. Contractor shall not expend any funds for the purpose of influencing or attempting to influence an officer, member, employee, or member of the Authority Board in the connection with the awarding and the administration of this Contract or any subcontract in furtherance of the Project.

#### **50.40 ENTIRE AGREEMENT**

- A. It is agreed that the Contract represents the entire agreement between the Parties. It is further agreed that the Contract Documents are incorporated in the Contract by reference, with the same force and effect as if the same were set forth at length within the Contract, and that Contractor and Contractor's officers, employees, agents, trades, material suppliers, and Subcontractors will be and are bound by any and all of said Contract Documents insofar as they relate in any part or in any way, directly or indirectly, to the work covered by the Contract.

#### **50.41 WRITTEN NOTICE**

- A. Any written notice required to be given in any part of the Contract Documents shall be performed by depositing the same in the U.S. Mail, postage prepaid, directed to the address of the Contractor as set forth in the Contract Documents, and to the Authority addressed as follows:

Orange County Fire Authority  
Attention: Sara Kennedy  
1 Fire Authority Road  
Irvine, CA 92602

**WITH COPY TO:**  
David E. Kendig, General Counsel  
Woodruff, Spradlin & Smart  
555 Anton Blvd. Suite 1200  
Costa Mesa, CA 92626

To Contractor: EC Constructors, Inc.  
Attention: James Summers, President  
9834 River Street  
Lakeside, CA 92040

#### **50.42 MISCELLANEOUS PROVISIONS**

- A. Assignment: Contractor shall neither delegate its duties or obligations, nor assign its rights with respect, except as provided above, to the Contract, either in whole or in part.

- Any such attempted delegation and/or assignment shall be void and deemed void at such occurrence, if it were to occur.
- B. Computation of Time: When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of the period, provided, however, that if the last day of the period falls on a Saturday, Sunday, or legal holiday, that day shall be omitted from the computation.
- C. Interest: Any monies not paid when due to either party under this Contract shall bear interest at the rate of ten (10%) percent per annum, commencing on the forty-sixth (46<sup>th</sup>) day after demand for payment thereof after such monies are lawfully due and payable, except as otherwise provided in the Contract Documents.
- D. Remedies Cumulative: No remedy herein reserved to Authority is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to any other given in the Contract Documents as now or hereafter existing or at law, equity, or by statute.
- E. Nonwaiver: The failure of the Authority to notify the Contractor of any default under the Contract Documents shall not be deemed to be a waiver by Authority of any continuing default by Contractor of any term, covenant, or condition set forth in this Contract, nor of the Authority's right to declare a default for any such continuing breach, and the failure of Authority to insist upon strict performance of any of the terms, covenants, or conditions of the Contract Documents, or to exercise any option in the Contract Documents in any one or more instances, shall not be construed as a waiver or relinquishment of any such terms, covenants, conditions or options, but the same shall be and remain in full force and effect.
- F. Severability: In case any one or more provisions set forth in the Contract Documents shall for any reason be held invalid, illegal, or unenforceable in any respect, any such invalidity, illegality, or unenforceability shall not affect any other provision of the Contract Documents, and the Contract Documents and the Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been incorporated therein so long as the deletion of such provision does not, in the Authority's judgment, materially alter the Contract.
- G. No Third-Party Beneficiaries: The Contract Documents and the Contract are not intended and shall not be deemed or construed, to confer any rights, powers, or privileges on any person, firm, partnership, corporation, or other entity not a party to the Contract except as may be expressly provided in the Contract to the contrary.
- H. Oral Agreements: No oral order, objection, claim, or notice by any party to the other shall affect or modify any of the terms or obligations contained in the Contract or the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification in writing and executed in the manner required in the Contract Documents by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.
- I. Counterparts: The Contract may be executed in any number of counterparts, and each of such counterparts for all purposes shall be deemed to be an original, and all of such counterparts should constitute one and the same agreement.

- J. Governing Law: The Contract, including the Contract Documents, shall be governed by the laws of the State of California.
- K. Services Prior to Execution: Notwithstanding the fact that the Contract is executed as of the date first set forth in the Contract, the Parties recognize that a portion of the Work required under the Contract Documents may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of the Contract Documents and shall be deemed to be a part of the Work.
- L. Survival of Rights: Any indemnity, warranty, guarantee given by the Contractor to the Authority under the Contract shall survive the expiration or termination of the Contract and shall be binding upon Contractor until any action under the Contract is barred by the applicable statute of limitations.
- M. Notice: All notices (whether or not designated as such herein) which are required under the Contract to be given between the parties pursuant to this Section shall be in writing and deemed given and, unless otherwise provided herein, effective when delivered personally to an officer of the party to be served (including the Contractor's Project Manager, in the case of the Contractor), when deposited in the United States mail, or in a sealed envelope, with postage thereon prepaid, sent by registered or certified mail, return receipt requested, and addressed to the appropriate party at the address set forth in the Contract or such other address as may be designated by either party hereto by notice to the other, or when transmitted by wire or facsimile to the appropriate party at the aforesaid address (a complimentary confirming letter shall also be mailed to the appropriate party on the same date).
- N. Maintenance of Harmonious Relations: The Contractor is hereby advised that any portion of the Project, or other projects in proximity to the Project may be subject to, and governed by, certain union or trade agreements. It is the policy of Authority to promote and maintain harmonious relationships in connection with the Project. The Contractor and its Subcontractors and Sub-subcontractors shall follow this policy; and shall utilize only qualified persons or organizations in the performance of the Work. A qualified person or organization is one: which is not likely to promote labor unrest on the Project; which shall abide by all local, state and federal labor and employment relation rules, regulations and laws; whose financial stability is reasonably assured throughout the duration of the Contract; and whose commitments to other projects are not likely to interfere with its ability to perform its portion of the Work efficiently and cost effectively. Authority reserves the right to disapprove, or to require the removal of, any person or organization who is being considered for, or has received, an award to perform all or a portion of the Work but has failed to demonstrate the willingness or ability to follow this policy.
- O. Union Agreements: Regardless of the expiration of any collective bargaining agreement during the term of the Contract which may affect the Contractor in any of its activities including, without limitation, with respect to the Work or the Project, the Contractor is obligated to man the job and properly and timely perform the Work in a diligent manner. Upon notification of expected or actual labor disputes or job disruption arising out of any such collective bargaining negotiations, the expiration of any union or trade agreement or any other cause, the Contractor and its Subcontractors and Sub-subcontractors shall cooperate with Authority concerning any legal, practical or contractual actions to be taken by Authority in response thereto and shall perform any actions requested by Authority to eliminate, neutralize or mitigate the effects of such actions on the progress of the Work and the impact of such actions on the public access to Authority's facilities. It is the Contractor's obligation, at the Contractor's own cost and

expense, to take all steps available to prevent any persons performing the Work from engaging in any disruptive activities such as strikes, picketing, slowdowns, job actions or work stoppages of any nature or ceasing to work due to picketing or other such activities, which steps shall include, without limitation, execution of an appropriate project agreement with appropriate unions prohibiting all such activities on or about the Project. Notwithstanding any such occurrences, the Contractor shall not be relieved of its obligation to man the job and properly and timely perform the Work in a diligent manner.

- P. Immigration Reform Control Act: All Contractors, Subcontractors, and Sub-subcontractors must adhere to the Immigration Reform Control Act of 1986 and shall maintain I-9 forms regarding all employees. It is not Authority's obligation to insure compliance with this law, however, Authority reserves the right to inspect and copy the Contractor's records in this regard upon request.
- Q. General: The captions of divisions, sections, articles, sections, subsections, clauses and the like in the Contract Documents are for convenience only and shall in no way define the content or limit the meaning or construction of the wording of the divisions, sections, articles, sections, subsections, clauses and the like. The parties agree that the Contract Documents shall not be construed more strictly against any party regardless of the identity of their drafter.
- R. Unless otherwise specified, article, sections and subsections references appearing in these General Conditions are to articles, sections and subsections herein.

#### **50.43 EMERGENCIES**

- A. In any emergency affecting the safety of persons or property, or in the event of a claimed violation of any Federal or State safety or health law or regulation, arising out of or in any way connected with the Work or its performance, the Contractor shall act immediately to prevent threatened damage, injury or loss or to remedy said violation, whichever is applicable, failing which Authority may immediately take whatever action it deems necessary including, but not limited to, suspending the Work.
- B. The project will have written and posted emergency procedures. The procedures are required to be review by the Contractor and all Subcontractors and their employees during the orientation process. Periodically, they will be reviewed in the weekly Subcontractor meetings and in Contractor's sit tool box meetings.
- C. The emergency procedures should include procedures for inclement weather (hurricanes, etc.) fire, chemical spill or releases, and severe accidents.
- D. The procedures should include designated persons assigned to emergency functions such as providing first-aid, calling authorities, directing emergency personnel, or assuring the project is evacuated.
- E. After-hour emergency numbers shall be made available.

#### **50.44 CLEANUP**

- A. The Contractor shall at all times keep the Site clean and free from accumulation of waste materials or rubbish (including, without limitation, hazardous waste), caused by his performance of the Work, and shall continuously throughout performance of the Work remove and dispose of all such materials from the Site and the Project.

- B. Project Manager may require the Contractor to comply with such standards, means and methods of cleanup, removal or disposal as Project Manager may make known to the Contractor. In event the Contractor fails to keep the Site clean and free from such waste or rubbish, or to comply with such standards, means and methods, Authority may take such action and offset any and all costs or expenses of whatever nature paid or incurred by Authority in undertaking such action against any sums then or thereafter due to the Contractor.
- C. The Contractor shall notify Authority in advance of the generation, importation, storage, transportation or disposal, of any hazardous waste, toxic materials or contaminants of any type in connection with the Project. Contractor shall provide Project Manager with Material Safety Data Sheets (MSDS's) and the Uniform Hazardous Waste documents. The Contractor will develop and implement a written and effective Spill Control and Containment Plan.

#### **50.45 TRENCHES AND EXCAVATIONS**

- A. The Contractor shall promptly, and before any of the following conditions are disturbed, notify the Project Manager, in writing, of any:
  - 1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class 1, Class II, or Class III disposal site in accordance with the provisions of existing law.
  - 2. Subsurface of latent physical conditions at the Site differing from those indicated.
  - 3. Unknown physical conditions at the Site of unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract and Contract Documents.
- B. The Project Manager shall promptly investigate the conditions, and if the Project Manager finds that the conditions materially so differ, or do involve hazardous waste, and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a change order, subject to the provisions of the Contract Documents.
- C. In the event that a dispute arises between the Project Manager and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for in the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes and protests between parties.

#### **50.46 UNCOVERING AND CORRECTION OF WORK; AUTHORITY'S RIGHT TO CARRY OUT WORK**

- A. If any portion of the Work should be covered contrary to the instructions or request of Project Manager or the requirements of the Contract Documents, the Contractor shall, if required by Project Manager, uncover such portion of the Work for Project Manager's observation and shall replace such Work all at the Contractor's expense.
- B. If any portion of the Work should be covered prior to a specific request for observation or instruction by Project Manager, Project Manager may request to see such Work, and it shall be uncovered by the Contractor. If such Work is found to be

in accordance with the Contract Documents and without defect, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to Authority. If such Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall bear such costs.

- C. Project Manager shall have the authority to reject any portion of the Work which is defective or does not conform to the Contract Documents, and the Contractor shall promptly correct all Work so rejected by Project Manager. In order that such corrective Work shall not interrupt or delay Contractor's Construction Schedule or the completion date of the Project, the Contractor shall perform such Work according to a schedule therefor established by Project Manager (which may provide that the same be performed on overtime, shiftwork, Saturdays, Sundays and/or holidays), utilizing in the performance thereof such manpower as is necessary to complete the corrective Work in accordance with said schedule. The Contractor shall bear all costs of correcting such rejected Work including, without limitation, compensation for any additional architectural and engineering services made necessary thereby.
- D. If, within one (1) year after the Completion of the Work (as determined by Authority) or within such longer period of time as may be prescribed by law or by the terms of any applicable warranty or guarantee required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of written instructions to that effect from Authority unless Authority has previously given the Contractor a written acceptance of such condition.
- E. The Contractor shall remove from the Site all Work which is defective or non-conforming and not corrected under the provisions of these General Conditions unless removal is waived in writing by Authority.
- F. If the Contractor does not remove such uncorrected defective or non-conforming Work within a reasonable time fixed by written instructions to that effect from Project Manager, Authority may remove it and store the materials and equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, Authority may, upon ten (10) additional days written notification to the Contractor, sell such materials and equipment at public or private sale and account to the Contractor for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for any additional architectural and engineering services and attorneys' fees made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then or thereafter due to the Contractor are not sufficient to cover such difference, the Contractor shall, upon demand, pay the same to Authority. The obligations of the Contractor under this Subsection shall be in addition to, and not in limitation of, any obligations imposed on it by law, by any other provision of this Contract or by any warranty or guarantee under this Contract.
- G. If the Contractor fails to correct any defective or non-conforming Work, Authority may correct it with its own forces or by contract with a third-party contractor. In the event of a defect found after final acceptance of the Work by Authority which the Contractor is obligated to correct pursuant to the Contract Documents, Authority may, at its option, after giving the Contractor an opportunity to correct such defect, cause such corrective Work to be performed by others and charge the Contractor with the cost thereof. Such charge shall be due and payable by the Contractor upon demand.

- H. If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision of this Contract, and such default, neglect or non-performance shall continue for a period of 48 hours after written notification thereof from Authority (or if such default, neglect or non-performance cannot be reasonably remedied within such 48-hour period, and Contractor does not (in the sole determination of Authority) undertake in good faith the remedy of the same within said period and thereafter proceed diligently to completion), then Authority may, without prejudice to any other remedy Authority may have, make good such deficiencies; provided, however, that in the event of an emergency, as determined by Authority, no notification shall be required. Authority shall have the right to take possession of such portion of the Site as will enable it to make good such deficiencies and, in connection therewith, to utilize the materials, equipment, tools, construction equipment and machinery of the Contractor located on the Site. If Authority makes good any such deficiencies, the costs of correcting the same including, without limitation, compensation for additional architectural and engineering services made necessary by such default, neglect or non-performance, shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then or thereafter due to the Contractor are not sufficient to cover such costs, then the Contractor shall, upon demand, pay the difference to Authority.
- I. If Authority prefers to accept defective or non-conforming Work, it may do so instead of requiring its removal and correction, in which case an appropriate amount shall be offset against any amounts then or thereafter due to the Contractor; or, if the said appropriate amount of offset is determined after final payment (or if there is not then or thereafter due to the Contractor an amount sufficient to cover the offset available to Authority), the Contractor shall, upon demand, pay the appropriate amount (or the difference after offset, as applicable) to Authority.

END OF DOCUMENT

**4H: GUARANTEE**

We hereby guarantee that the **RFP SK2489b – Design-Build Services for OCFA Mission Viejo Fire Station #24**, which we have constructed for the Orange County Fire Authority, has been performed in accordance with the requirements of the Contract Documents and that the work as installed will fulfill the requirements of the Contract Documents.

The undersigned agrees to repair or replace any or all of such work that may prove to be defective in workmanship or material together with any other adjacent work which may be displaced in connection with such replacement within a period of one (1) year from the date of acceptance of the above-mentioned project by the Orange County Fire Authority, ordinary wear and tear and unusual abuse or neglect excepted. In the event of the undersigned's failure to comply with the above mentioned conditions within a reasonable period of time, as determined by the Authority, but not later than one week after being notified in writing by the Authority, the undersigned authorizes the Authority to proceed to have said defects repaired and made good at the expense of the undersigned, which will pay the costs and charges therefore upon demand.

**LEGAL NAME OF CONTRACTOR:** EC Constructors, Inc.

**SIGNATURE OF CONTRACTOR:** \_\_\_\_\_

**PRINTED NAME:** Sherri L. Summers **TITLE:** CEO

**CONTRACTOR ADDRESS:** 9834 River Street

**CITY:** Lakeside **STATE:** CA **ZIP CODE:** 92040

**IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:**

**NAME OF CORPORATION:** EC Constructors, Inc.

**DATE OF INCORPORATION:** 12/19/2005

**PRESIDENT:** James J. Summers

**TREASURER:** Lyndsi M. Summers, CFO

**SECRETARY:** Cory J. Summers

**MANAGER:** Sherri L. Summers, CEO

**SUBSCRIBED AND SWORN TO BEFORE ME**

**THIS** 7 **DAY OF** June **20** 22

See Attached  
(Signature of Notary Public)

(Attach Jurat)

**BY** Sherri L. Summers

(Print Name)

Sherri Summers  
(Signature)

**TITLE** CEO

(SEAL)

(SEAL)

**CALIFORNIA JURAT WITH AFFIANT STATEMENT**

**GOVERNMENT CODE § 8202**

- ☒ See Attached Document (Notary to cross out lines 1-6 below)  
☐ See Statement Below (Lines 1-6 to be completed only by document signer[s], *not* Notary)

1 \_\_\_\_\_  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_  
 4 \_\_\_\_\_  
 5 \_\_\_\_\_  
 6 \_\_\_\_\_

Signature of Document Signer No. 1      Signature of Document Signer No. 2 (if any)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of San Diego

Subscribed and sworn to (or affirmed) before me

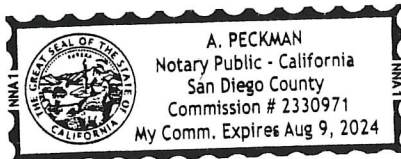
on this 7 day of June, 2022  
 by      Date      Month      Year

(1) Sherri L. Summers

(and (2) \_\_\_\_\_),  
 Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence  
 to be the person(s) who appeared before me.

Signature [Signature]  
 Signature of Notary Public



Seal  
 Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

## **SECTION 5: TECHNICAL SPECIFICATIONS**

### **5A: MINIMUM SPECIFICATIONS FOR TEMPORARY FIRE STATION #24**

# --- GENERAL SPECIFICATIONS ---

FRAME:  
OUTRIGGER TYPE, 10" JR. I BEAM  
CROSS MEMBERS: 14 GA. 2" X 7" @ 96" O.C.  
ANGLE: 1 1/2" X 1 1/2" X 1/8" @ ALTERNATING 48"  
OUTRIGGERS: 14 GA. @ 96" O.C. @ 2 MEMBERS  
FOUR RECYCLED AXLES (98-2479 & 982481)  
EIGHT (8) WHEEL BRAKES  
FIVE RECYCLED AXLES (98-2478 & 98-2480)  
TEN (10) WHEEL BRAKES  
USED TIRES 8 PLY 7.00 X 14.5" AND WHEELS  
DETACHABLE HITCH FOR 2 5/16" BALL

FLOOR:  
2" X 8" JOIST H.F. #2 @ 16" ON CENTER  
JOISTS INSTALLED TRANSVERSE TO MAIN RAILS  
3/4" T&G STURDI-FLOOR PLYWOOD  
R-11 UNFACED INSULATION  
REINFORCED PLASTIC BOTTOM COVER  
1/8" V.C.T. THROUGHOUT  
COLOR: # 51858 SANDRIFT WHITE  
4" TOPSET BASE:  
COLOR: # 502P DARK BROWN

EXTERIOR WALLS:  
2" X 4" STUDS H.F. #2 @ 16" ON CENTER  
DOUBLE 2" X 4" H.F. #2 TOP PLATE  
SINGLE 2" X 4" H.F. #2 BOTTOM PLATE  
5/8" TYPE X GYPSUM BOARD FOR ONE (1) HOUR FIRE  
PROTECTION ON END WALLS AND REAR SIDE WALL  
R-11 UNFACED INSULATION  
1/2" VINYL WRAPPED GYPSUM (HAMPTON GRAY)  
WHERE INDICATED ON FLOOR PLAN  
REST ROOMS ONLY:  
1/8" MARLITE +96" A.F.F. OVER 1/2" M.R. GYPSUM  
COLOR: WHITE  
SIDE WALL HEIGHT MAXIMUM 108"

EXTERIOR SIDING:  
7/16" INNERSEAL SIDING WITH GROOVES @ 8" O.C.  
7/16" MASONITE TRIM BOARDS  
TOP AND BOTTOM TRIM: 8"  
VERTICAL CORNERS, DOORS AND WINDOWS: 4"  
PAINT: VISTA - FLAT  
BODY COLOR: ANTIQUE WHITE (50)  
TRIM COLOR: DOVER GRAY (44)

ROOF:  
2" X 6" RAFTERS H.F. #2 @ 16" ON CENTER  
EXTRA RAFTERS FOR FIRE SPRINKLER SUPPORT  
1/2" O.S.B. PLYWOOD SUB-ROOF  
GABLE ROOF W/ 1" PER FOOT SLOPE  
RIDGE BEAM: 1 3/4" X 16" MICRO-LAM  
R-19 UNFACED INSULATION  
30 GAUGE GALVANIZED ROLLED ROOF  
1 LAYER 5/8" TYPE X GYPSUM TO BOTTOM SIDE  
OF RAFTERS, FIRE TAPE ONLY

CEILING:  
"ARMSTRONG" SUSPENDED WHITE T-GRID +95" A.F.F.  
PANEL: "ARMSTRONG" 755-B FISSURED MINNABOARD

EXTERIOR WINDOWS:  
3 EACH 46" X 39" HORIZONTAL SLIDERS W/SCREEN  
FRAMES: BRONZE FINISH  
GLASS: SINGLE BRONZE  
WINDOW COVERINGS: NONE  
2 EACH 48" X 48" 45 MIN. RATED HORIZONTAL SLIDER,  
1/4" WIRE GLASS IN H.M. STEEL FRAME  
FRAMES: BRONZE FINISH  
GLASS: SINGLE BRONZE  
WINDOW COVERINGS: NONE

EXTERIOR DOORS:  
2 EACH 36" X 80" "ACTIVE" RLC-1  
FRAME: BRONZE FINISH  
EXTERIOR COLOR: DOVER GRAY (44)  
INTERIOR COLOR: CAPE CODE GRAY  
HARDWARE: SCHLAGE B-160 DEADBOLT (KEYED ALIKE)  
SCHLAGE F-10 PASSAGE LEVER  
CLOSER: DOOR CHAINS ONLY

INTERIOR DOOR:  
6 EACH 36" X 80" LEGACY "WALNUT"  
6 EACH 36" X 80" TIMELY BROWNTONE FRAMES  
HARDWARE: 4 EACH SCHLAGE F-10 PASSAGE LEVER  
2 EACH SCHLAGE F-40 PRIVACY LEVER  
1 SET 6" BYPASS WARDROBE DOOR W/ HARDWARE (2 DOOR)  
1 SET 12" BYPASS WARDROBE DOOR W/ HARDWARE (4 DOOR)

INTERIOR PARTITIONS:  
2" X 4" STUDS H.F. #2 @ 16" ON CENTER  
R-11 SOUND INSULATION PER PLANS  
DOUBLE 2" X 4" H.F. #2 TOP PLATE  
SINGLE 2" X 4" H.F. #2 BOTTOM PLATE  
1/2" VINYL WRAPPED GYPSUM  
COLOR: HAMPTON GRAY  
REST ROOMS: 1/8" MARLITE +96" A.F.F.  
COLOR: WHITE

ELECTRICAL:  
1 EACH 125 AMP 120/240 VOLT SINGLE PHASE SUB PANELS  
1 EACH 150 AMP 120/240 VOLT SINGLE PHASE SUB PANELS  
NO MAIN BREAKERS INSTALLED  
ALL DEVICES TO BE "IVORY"  
SINGLE POLE SWITCHES PER FLOOR PLAN  
1 EACH 220 VOLT, 30 AMP OVEN/RANGE RECEPTACLE  
DUPLEX RECEPTACLES PER FLOOR PLAN  
2 EACH GFI RECEPTACLE PER FLOOR PLAN  
3 EACH 120 VOLT SMOKE DETECTORS  
10 EACH TELEPHONE OUTLETS  
2 EACH ILLUMINATED EXIT /EMERGENCY SIGNS W/ BATTERY B/U  
COPPER WIRE ROMEX THROUGHOUT

LIGHTS:  
17 EACH 2'x4' 4 TUBE LAY-IN FIXTURES  
2 EACH 60 WATT EXTERIOR PORCH LIGHT (FAILSAFE # IBO-102)  
WITH MOTION SENSOR AND PHOTO CELL  
SPECIAL WIRING BY CITY ELECTRIC CONTRACTORS BY BRANDALL MODULAR

HVAC:  
2 EACH "BARD" WH361-A05XX4 HEAT PUMP SGL PHASE  
2 EACH SHEET METAL PLENUMS FOR RETURN AIR  
2 EACH 50 CFM EXHAUST FANS IN REST ROOMS  
4 EACH FIRE DAMPER @ HVAC UNITS (2-SUPPLY, 2-RETURN)  
2 EACH WHITE RODGERS 1F92-71 THERMOSTAT  
13/16" FIBERGLASS DUCT BOARD (MANVILLE LP)

PLUMBING:  
2 EACH WALL HUNG LAVATORIES WITH FAUCETS WITH INSULATED PIPES  
CRANE: 1-40V W/ VALLEY NL-B05  
2 EACH TANK TYPE H/C FLOOR MOUNT WATER CLOSETS  
CRANE: 3-153  
2 EACH SEAT COVERS  
2 EACH 36" X 36" HANDICAPPED FIBERGLASS SHOWER STALL W/ CURTAINS  
1 EACH 40 GAL. ELECTRIC WATER HEATER  
ALL SUPPLY LINES TO BE TYPE "L" COPPER  
ALL WASTE LINES TO BE A.B.S.  
PLUMBING TREE MANIFOLD BY BRANDALL MODULAR  
PRESSURE RANGE: 46 - 60 PSI  
1 EACH 33"x22" DOUBLE STAINLESS STEEL SINK W/ FAUCET  
1 EACH 1/3 HP GARBAGE DISPOSAL

MISC.:  
2 EACH 18" X 30" POLISHED EDGED UNFRAMED MIRRORS  
2 EACH TOILET PAPER HOLDERS  
1 EACH 4"x8"x3/4" TELEPHONE BACKBOARD  
2 SETS HANDICAP GRAB BARS

CABINETS:  
SHELF AND POLE BY AMSI  
ALL OTHER CABINETS BY OTHERS THAN AMSI

APPLIANCES:  
BY OTHERS THAN A.M.S.I.

FIRE ALARMS:  
BY OTHERS THAN A.M.S.I.

FIRE SPRINKLERS:  
BY OTHERS THAN A.M.S.I.  
MANUAL PULL SWITCH

SHIP LOOSE:  
14 EA PAINTED LP INNERSEAL SKIRTING

## FINISH SCHEDULE

	FLOOR	WALLS	CEILING
ROOM	1/8" V.C.T. W/ 4" TOP SET BASE CARPET BARE PLYWOOD	1/2" VINYL WRAPPED GYPSUM 1/8" MARLITE +96" A.F.F.	ARMSTRONG SUSPENDED WHITE T-GRID 755-B PANEL +95" A.F.F.
ALL ROOMS	●	●	●
REST ROOMS		●	

# ---GENERAL NOTES---

- B-2 OCCUPANCY AND TYPE V-N CONSTRUCTION
- PROVIDE SIGN ADJACENT TO ENTRANCE STATING, "THIS DOOR TO REMAIN UNLOCKED DURING WHENEVER BUILDING IS OCCUPIED"
- THIS STRUCTURE CAN NOT BE LOCATED LESS THAN 20 FEET FROM PROPERTY LINE OR ASSUMED PROPERTY LINE EXCEPT FOR DESIGNATED WALLS WITH FIRE RATING.
- OCCUPANCY LOAD SHALL BE LESS THAN 29 MAXIMUM AND WILL HAVE MINIMUM 2 EXITS AS REQUIRED
- EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE
- FLOOR OR LANDING ON EACH SIDE OF DOORS SHALL NOT BE MORE THAN 1/2" BELOW THRESHOLD OF DOORWAY AND COMPLY WITH SECTION #3303 U.B.C. 1991 EDITION
- SYSTEM TO BE USED FOR ELECTRIC E-125 1 PHASE
- BUILDING IN ACCORDANCE WITH 1991 U.B.C., 1991 U.P.C., AND 1993 N.E.C.
- LIVE LOADS:
 

FLOOR:	50 LB./SQUARE FOOT
ROOF:	20 LB./SQUARE FOOT
WIND:	70 MPH, EXP. C (17.4 PSF)
PARTITION:	20 LB./SQUARE FOOT
SEISMIC ZONE:	4

- BUILDING IS FOR OFFICE USE (B-2 OCCUPANCY)
- MAXIMUM FLAME SPREAD OF INTERIOR WALL AND CEILING IS TO BE 200 MAXIMUM, CLASS III MATERIAL OR 1/4" MATERIAL
- SHEAR WALL APPLICATION - MINIMUM 5/8" T1-11 OR 1/2" PLYWOOD WITH 8d NAILS OR .131x3 1/4" SPACED @ 6" & 12"

## LOCATION MINIMUM SHEAR PANEL LENGTH HOLD DOWN TYPE

SW-1	FT.	REFER TO S-1
SW-2	FT.	REFER TO S-1
EW-A	FT.	REFER TO S-1
EW-B	FT.	REFER TO S-1

- UNITS WILL BEAR AN INSIGNIA FROM STATE OF CALIFORNIA AS IT PERTAINS TO "COMMERCIAL COACHES"

FP-251

CONTENTS		
SHEET	DWG	SHEET INDEX
1	T-1	GENERAL NOTES
2	A-1	FLOOR PLAN
3	A-2	ELEVATIONS
4	E-1	ELECTRICAL NOTES
5	E-2	ELECTRICAL
6	M-1	MECHANICAL

REVISIONS	BY
4/3/98	PAW
4/6/98	PAW
4/7/98	PAW

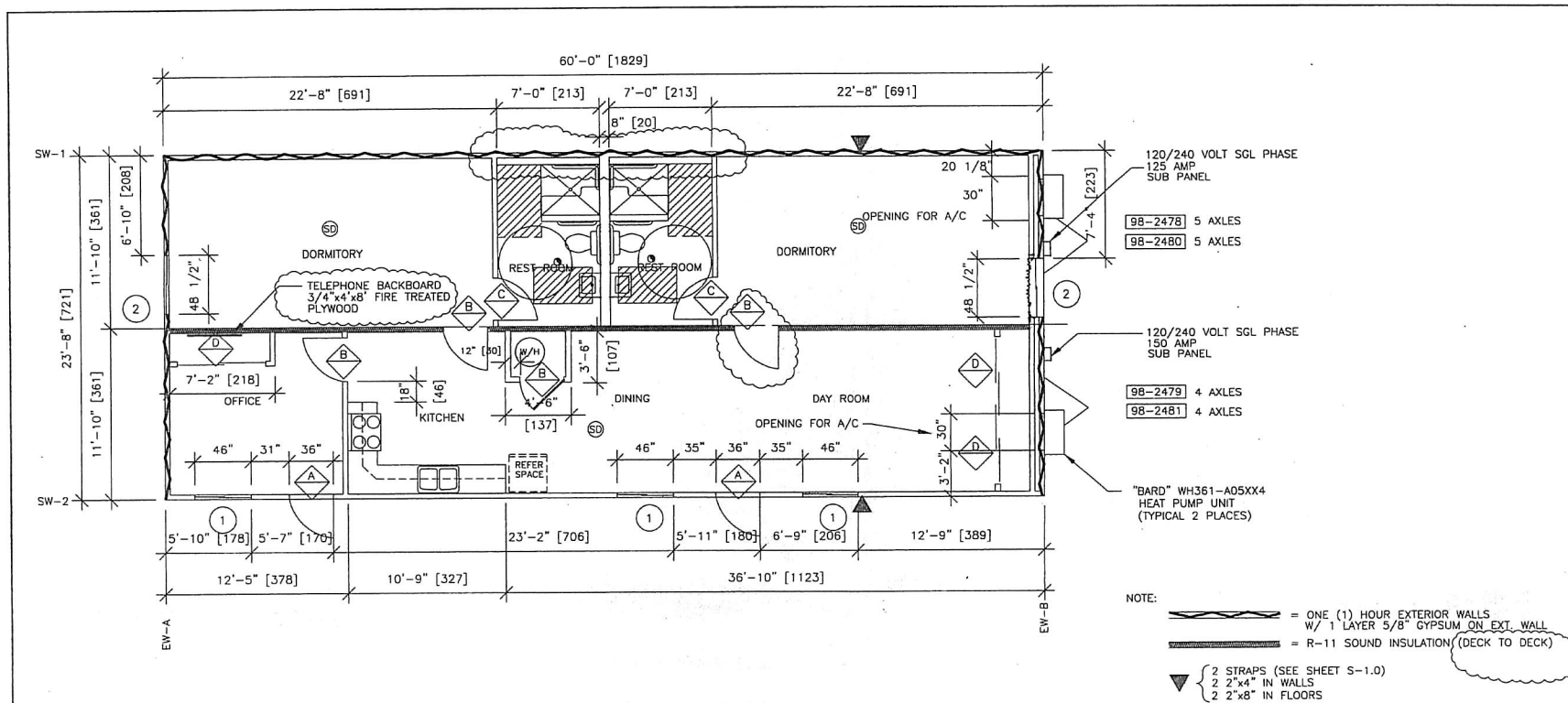
AMERICAN MODULAR STRUCTURES, INC.  
21516 MAIN ST.,  
GRAND TERRACE, CA 92632 B  
CONTRACTORS LICENSE NO. 568352 B  
714/684-0241 FAX 714/684-1386  
MANUFACTURER OF MODULAR AND MODULAR STRUCTURES

George Yousem, P.E.  
Regency Company, Inc. dba  
Regency Engineering & Consulting Group  
17165 Van Korman Blvd., Suite 200  
Newport News, VA 23606  
Telephone: (714) 283-3789  
Fax: (714) 283-3785

BRANDALL MODULAR CORP.  
19744 BEACH BLVD., NO.410  
HUNTINGTON BEACH, CA 92648  
714/374-2577  
800/794-8300  
FAX 714/374-2582  
LIC. NO. 622321

ORANGE COUNTY  
FIRE AUTHORITY  
OFFICE TRAILER  
98-2478, 98-2479  
98-2480, 98-2481

DRAWN BY: PAW
CHECKED BY: BFB
DATE: 01/13/98
SCALE: 3/16"=1'
JOB NO.: 98005
SHEET
T-1
1 OF 6 SHEETS



PLUMBING:

2 EACH WALL HUNG LAVATORIES WITH FAUCETS WITH INSULATED PIPES

CRANE: 1-40V W/ VALLEY NL-B05

2 EACH TANK TYPE H/C FLOOR MOUNT WATER CLOSETS

CRANE: 3-153

2 EACH SEAT COVERS

2 EACH 36" X 36" HANDICAPPED FIBERGLASS SHOWER STALL W/ CURTAINS

1 EACH 40 GAL. ELECTRIC WATER HEATER

ALL SUPPLY LINES TO BE TYPE "L" COPPER

ALL WASTE LINES TO BE A.B.S.

PLUMBING TREE MANIFOLD BY BRANDALL MODULAR

PRESSURE RANGE: 46 - 60 PSI

1 EACH 33"x22" DOUBLE STAINLESS STEEL SINK W/ FAUCET

1 EACH 1/3 HP GARBAGE DISPOSAL

### WINDOW SCHEDULE

SYM	SIZE	ROUGH OPENING	TYPE	MFG./PN
①	46"x39"		XO HORIZONTAL SLIDER GLASS: BRONZE SGL. STRENGTH	FRAME: BRONZE FINISH
②	48"x48"	48 1/2"x48 1/4"	XO HORIZONTAL SLIDER GLASS: BRONZE, SGL. STRENGTH	45 MIN. FIXED 1/4" WIRE GLASS IN H.M. STEEL FRAME
○				

### DOOR SCHEDULE

SYM	SIZE	ROUGH OPENING	TYPE	MFG./PN
A	36"x80"		RLC-1	SCHLAGE B-160 DEAD BOLT SCHLAGE F-10 PASSAGE LEVER
B	36"x80"		H.C. LEGACY	SCHLAGE F-10 PASSAGE LEVER
C	36"x80"		H.C. LEGACY	SCHLAGE F-40 PRIVACY LEVER
D	72"x80"		BY-PASS WARDROBE	

FP-251

REVISIONS	BY
4/3/98	PAW
4/6/98	PAW
4/7/98	PAW

AMERICAN MODULAR  
STRUCTURES, INC.  
21516 MAIN ST.,  
GRAND TERRACE, CA 92324  
CONTRACTORS LICENSE NO. 668332 B  
714/794-8308 FAX 714/794-8308  
MANUFACTURERS OF MOBILE  
AND MODULAR STRUCTURES

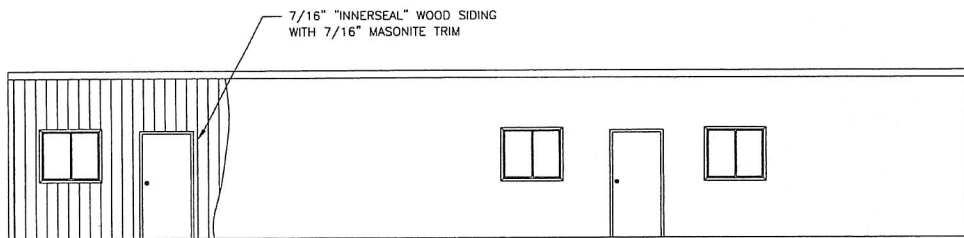
George Voudem, P.E.  
Regency Company, Inc. dba  
Engineering & Consulting Group  
1716 Van Hornum  
Irvine, Ca. 92714  
Telephone: (714) 842-3799  
Fax: (714) 842-3795

BRANDALL MODULAR CORP.  
19744 BEACH BLVD., NO.410  
HUNTINGTON BEACH, CA 92648  
714/374-2577  
800/794-8308  
FAX 714/374-2582  
LIC. NO. 623231

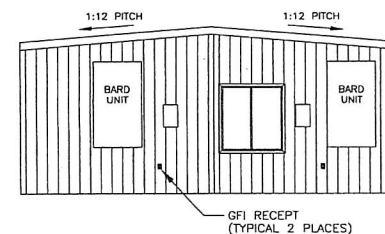
ORANGE COUNTY  
FIRE AUTHORITY  
OFFICE TRAILER  
24' X 60'  
98-2478, 98-2479  
98-2480, 98-2481

DRAWN BY: R.J.L.  
CHECKED BY: BFB  
DATE: 1/10/98  
SCALE: 3/16"=1'  
JOB NO.: 98005  
SHEET

A-1  
2 OF 6 SHEETS




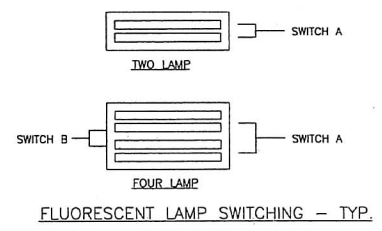
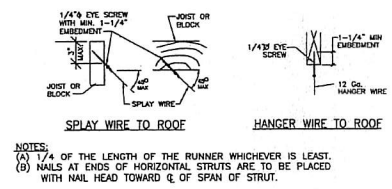
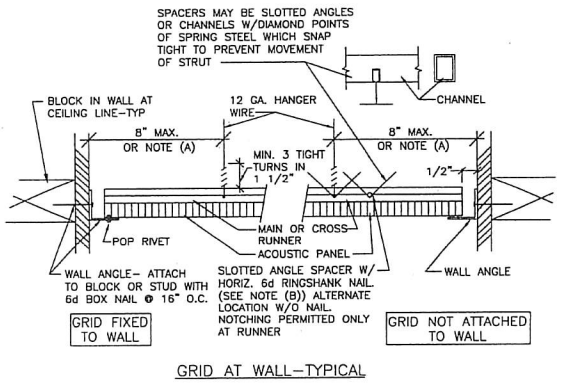
FRONT ELEVATION



RIGHT SIDE ELEVATION

FP-251

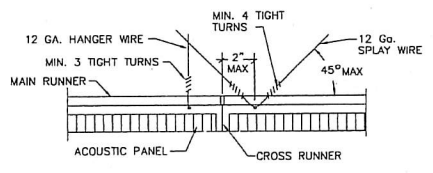
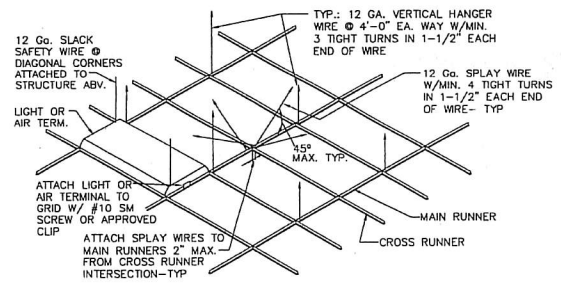
REVISIONS	BY
2/26/98	PAW
3/4/98	PAW
4/3/98	PAW
AMERICAN MODULAR STRUCTURES, INC. 21516 MAIN ST. GRAND TERRACE, CA 92324 CONTRACTORS LICENSE NO. 568352 B 714/684-0241 FAX 714/684-1386 MANUFACTURERS OF MOBILE AND MODULAR STRUCTURES	
George Youdem, P.E. Regency Company, Inc. dba Regency Engineering & Consulting Group 17105 Van Komen Avenue, Suite 100 Huntington Beach, CA 92648 Telephone (714) 252-3799 Fax (714) 252-3795	
 R.E. & S. Co. Inc. 19744 BEACH BLVD., NO. 410 HUNTINGTON BEACH, CA 92648 714/374-2577 800/794-6308 FAX 714/374-2582 LIC. NO. 622321	
ORANGE COUNTY FIRE AUTHORITY OFFICE TRAILER 24' X 60' 98-2478, 98-2479 98-2480, 98-2481	
DRAWN BY: R.J.L.	
CHECKED BY: BFB	
DATE: 1/10/98	
SCALE: 3/16" = 1'	
JOB NO.: 98005	
SHEET	
A-2	
3 OF 6 SHEETS	



NOTE: ALL LAMPS BALLAST AND SWITCHES SHALL CONFORM TO STATE TITLE 24 CONNECT EMERGENCY BALLAST UNSWITCHED

PANEL BOARD SCHEDULE										PANEL A	
120/240		NO MAIN BRKR		1 PHASE		3 WIRE		98-2478 & 98-2480			
MOUNT	SURFACE	LOCATION		EXTERIOR		BUSS		125 AMP			
DESCRIPTION	WATTS	WIRE SIZE	BREAKER	NO.	NO.	BREAKER	WIRE SIZE	WATTS	DESCRIPTION		
HVAC	6900	8	60	1	2	20	12	1080	RECEIPTS		
HVAC	6900	8	60	3	4	20	12	720	RECEIPTS		
LIGHT	684	12	15	5	6						
LIGHT	684	12	15	7	8						
				9	10						
				11	12						
				13	14						
				15	16						
				17	18						
				19	20						
LOAD KW										TOTAL LOAD	
A		8664		1.25% = 1710							
B		8304		OTHER = 15600							
TOTAL		16968		MAX DEMAND = 17310							

PANEL BOARD SCHEDULE										PANEL B	
120/240		NO MAIN BRKR		1 PHASE		3 WIRE		98-2479 & 98-2481			
MOUNT	SURFACE	LOCATION		EXTERIOR		BUSS		150 AMP			
DESCRIPTION	WATTS	WIRE SIZE	BREAKER	NO.	NO.	BREAKER	WIRE SIZE	WATTS	DESCRIPTION		
HVAC	6900	8	60	1	2	20	12	1260	RECEIPTS		
HVAC	6900	8	60	3	4	20	12	1260	RECEIPTS		
LIGHT	822	12	15	5	6	30	10	2760	WATER HEATER		
LIGHT	762	12	15	7	8	30	10	2760	WATER HEATER		
				9	10	30	10	2760	RANGE		
				11	12	30	10	2760	RANGE		
				13	14	20	12	720	RECEIPTS		
				15	16						
				17	18						
				19	20						
LOAD KW										TOTAL LOAD	
A		15162		LCL = 1584		1.25% = 1980					
B		14442		OTHER = 28020							
TOTAL		29604		MAX DEMAND = 30000							



REVISIONS	BY
3/4/98	PAW
4/3/98	PAW
4/6/98	PAW

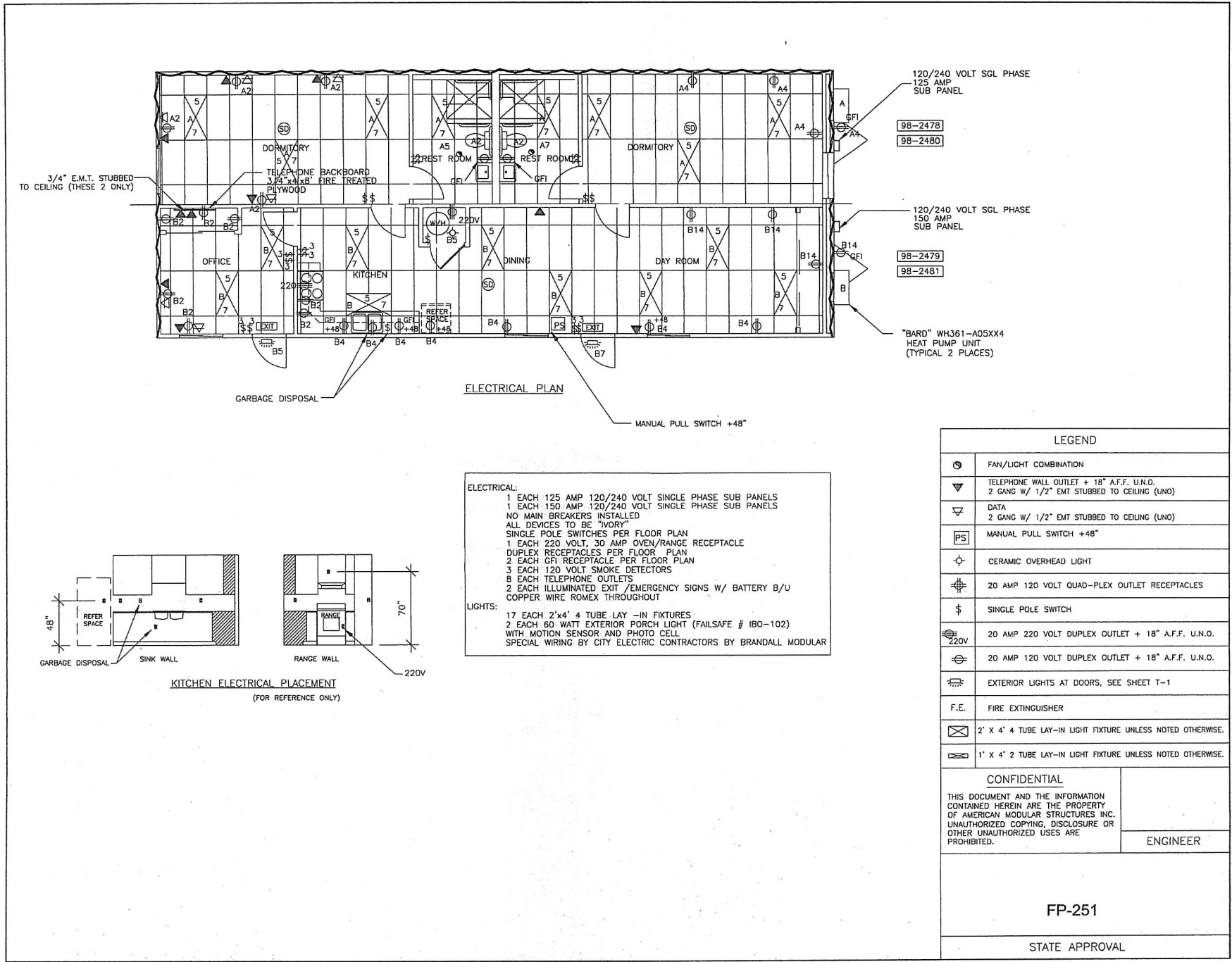
AMERICAN MODULAR STRUCTURES, INC.  
21516 MAIN ST.,  
GRAND TERRACE, CA 92324  
CONTRACTORS LICENSE NO. 588352 B  
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MANUFACTURERS OF MOBILE AND MODULAR STRUCTURES

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19744 BEACH BLVD., NO. 410  
HUNTINGTON BEACH, CA 92648  
714/374-2577  
800/794-8308  
FAX 714/374-2582  
LIC. NO. 622321

ORANGE COUNTY  
FIRE AUTHORITY  
OFFICE TRAILER  
24' X 60'  
98-2478, 98-2479  
98-2480, 98-2481

DRAWN BY:	PAW
CHECKED BY:	BFB
DATE:	1/19/98
SCALE:	3/16" = 1'
JOB NO.:	98005
SHEET	
E-1	
4 OF 6 SHEETS	

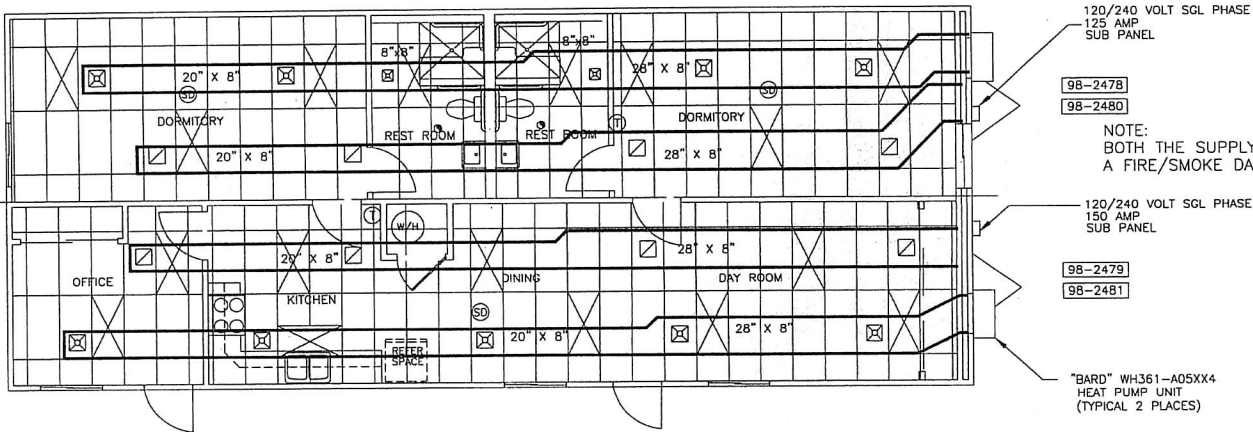


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3/4/98	PAW
4/3/98	PAW

AMERICAN MODULAR STRUCTURES, INC. 21516 MAIN ST. GRAND TERRACE CA 92324 CONTRACTORS LICENSE NO. 568352 B 714/684-0241 FAX 714/684-1386 MANUFACTURERS OF MODULAR AND MODULAR STRUCTURES
George Youdem, P.E. Regency Company, Inc. also Regency Engineering & Consulting Group 17168 Van Norman Avenue, Suite 108 Perris, CA 92370 Telephone: Fax (714) 283-3785

BRANDALL MODULAR CORP. 19744 BECH BLVD. NO. 410 HUNTINGTON BEACH, CA 92648 714/374-3577 800/757-8508 FAX 714/374-3582 LIC. NO. 622321
ORANGE COUNTY FIRE AUTHORITY OFFICE TRAILER 24' X 60' 98-2478, 98-2479 98-2480, 98-2481

DRAWN BY: R.J.L.L.
CHECKED BY: BFB
DATE: 1/10/98
SCALE: 3/16"=1'
JOB NO.: 98005
SHEET
E-2
5 OF 6 SHEETS



MECHANICAL PLAN

HVAC:

- 2 EACH "BARD" WH361-A05XX4 HEAT PUMP SGL PHASE
- 2 EACH SHEET METAL PLENUMS FOR RETURN AIR
- 2 EACH 50 CFM EXHAUST FANS IN REST ROOMS
- 4 EACH FIRE DAMPER @ HVAC UNITS (2-SUPPLY, 2-RETURN)
- 2 EACH WHITE RODGERS 1F92-71 THERMOSTAT
- 13/16" FIBERGLASS DUCT BOARD (MANVILLE LP)

MECHANICAL NOTES

1. Mechanical Equipment Installation in or on this Building Shall Be in Accordance With the Requirements of U.M.C. Unless Otherwise Specifically Exempted Or Required By Approved State Regulatory Agencies.
2. Mechanical And Gravity Ventilation Requirements shall Comply With the State of California CCR Title 24, Part 6, Section T20.
3. Rectangular Duct Shall Be Manville Type 475 Or Equal U.L. Listed 13/16" Thick Insulated Duct Board With Joints Sealed With Approved Duct Board Tape.
4. Round Flex Duct Shall Be U.L. Listed Class U.L. Standard 181 Factory-Made Air Ducts and Air Connectors. The Minimum Thermal Performance Shall Be At 4.2 R-Value And Measured In Accordance To ASTM C 518 Or ASTM C 177 at 75F Temperature.
5. Branch Fitting Shall Have Tab Lock Sheet Metal Collar With Adjustable Scoop And Damper Suitable For Duct Board Insulation.
6. Thermostat Programming To Be Performed And Battery Provided By Others On Site.
7. All HVAC Equipment Leaves The Factory Wired For 240 Volt Operation. The Acceptable Operating Range For The 240 208 Taps Are:
 

Top	Range
240	253-216
208	220-187
8. Air Filters In HVAC Units Or Systems Are To Be Changed Every 30 Days By Others On Site.
9. Test And Balance Of HVAC System To Be Provided And Performed By Others On Site.
10. Set Up And Testing Of Economizers, And Classroom Ventilators To Be Provided And Performed By Others On Site.
11. Maintain Minimum 10 FT. Clearance Between Exhaust and OSA Intakes.

12. Drawings Showing Location Of Equipment, Piping Ductwork Etc. Are Diagrammatic And Job Conditions Will Not Always Permit Their Installation In The Location Shown. The Mechanical Drawings Show The General Arrangement Of All Piping Ductwork, Equipment, Etc., and Shall Be Followed As Closely As Existing Conditions And Actual Building Construction And The Work Of Other-Trades Will Permit, Because Of The Small Scale Of The Mechanical Drawing, It Is Not Possible To Indicate All Offsets, Fittings, And Accessories As May Be Required To Meet Conditions. When Job Conditions Do Not Permit Installation Of Equipment Piping, Ductwork, Etc. In The Location Shown, It Shall Be Brought To The Architect's Attention Prior To Fabrication Of Materials.

13. Seal ALL Penetrations Thru Exterior Walls And Roof Water tight.

3.0 TON  
HEAT PUMP, BARD WALL MOUNT, WH361-A05XX4 5KW  
35,600 NOM BTU COOLING CAPACITY  
34,400 NOM BTU HEATING CAPACITY FROM COMPRESSOR  
ADDITIONAL 17,065 NOM BTU HEATING CAPACITY FROM HEAT STRIP  
MCA 53, MOCF 60, 1205 CFM @ .3 ESP. UNIT WEIGHT 380 LBS.  
230 VOLT, 60 CYCLE, SINGLE PHASE

LEGEND

	FAN/LIGHT COMBINATION
	TELEPHONE WALL OUTLET + 18" A.F.F. U.N.O.
	DATA
	RETURN AIR REGISTER AIRMATE #170 12 X 12
	SUPPLY AIR REGISTER AIRMATE #604M 12 X 12
	SMOKE DETECTOR, CEILING MOUNT, 120 VOLT
	SINGLE POLE SWITCH
	20 AMP 120 VOLT DUPLEX OUTLET + 18" A.F.F. U.N.O.
	EXTERIOR LIGHTS AT DOORS
	THERMOSTAT WHITE RODGERS 1F92-71
	FIRE EXTINGUISHER
	2' x 4' 4 TUBE LAY-IN LIGHT FIXTURE UNLESS NOTED OTHERWISE.
	1' x 4' 2 TUBE LAY-IN LIGHT FIXTURE UNLESS NOTED OTHERWISE.

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ENGINEER

FP-251

STATE APPROVAL

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3/4/98	PAW
4/6/98	PAW

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24' x 60'  
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DRAWN BY: R.J.L.
CHECKED BY: BFB
DATE: 1/10/98
SCALE: 3/16"=1'
JOB NO.: 98005
SHEET
M-1
6 OF 6 SHEETS

# CONSTRUCTION NOTES

## 1. OUTRIGGER CHASSIS CONSTRUCTION:

WALL SIZE: 2'-12" H.F. #2  
 FRAMING: OUTRIGGER: ☒ FORMER:  
 WALKWAY: 10'-0" W. 1" BEAM  
 CROSSWALK: 14'-0" W. 2" Z 9 88" O.C.  
 WALKWAY: 10'-0"  
 NO. OF AISLES: 4  
 LOCATION OF AISLES:  
 CONNECTION OF CHASSIS TO FLOOR:  
 REFERENCE DETAIL SHEET:

## 2. ROOF DIAPHRAGM:

BEARING: 0.58 PLYWOOD  
 FASTENING: 84 MIL. 8" AT SUPPORTED EDGES & 12" O.C.  
 DIAPHRAGM BEAM: 12" x 12"  
 SIDE WALL CHORD BRACE: 2x12 USE Simpson WEA-30 STRAP  
 W/ 13 104 NAILS WOOD OF STRAP (20- 1004 PER STRAP)  
 END WALL CHORD TO:  
 BLOCKING REQUIREMENTS: NONE  
 REFERENCE DETAIL SHEET: TABLE No. 3 & No. 4 ON SHEET S-5.3  
 WOOD:

## 3. INTERIOR WALLS

STUD SIZE & GRADE: 2"x4" H.F. #2  
 STUD SPACING: 16" O.C. PARTITION HEIGHT:  
 TOP PLATES: 2"x4" DOUBLE  
 INSULATION: R-11 SOUND INSULATION  
 INTERIOR FINISH: 1/2" VINYL-WEAVERED GYPSUM  
 FIRE RESISTIVE CONSTRUCTION:  
 REFERENCE DETAIL SHEET:  
 WOOD:

## 4. EXTERIOR WALLS STEEL: WOOD: ☒

STUD SIZE & GRADE: 2"x4" H.F. #2  
 STUD SPACING: 16" O.C.  
 FLAT:  
 SIDE WALL HEIGHT: STUD AT:  
 TOP PLATES: DOUBLE 2"x4" H.F. #2  
 INSULATION: R-11 INSULATION  
 EXTERIOR FINISH: 7/16" SHEET PILING W/ GROOVES 8" O.C.  
 INTERIOR FINISH:  
☐ REFER TO SHEARWALL TABLE FOR EXTERIOR BEARING  
☐ CONNECTION USED AS SHEARWALL  
 FIRE RESISTIVE CONSTRUCTION:  
 REFERENCE DETAIL SHEET:  
 WOOD:  
 HEADERS:  
 OPENING WIDTH: 48" HENNER REST: 2'-2"x4"  
 48" 7'-2"x4"  
 36" 2'-2"x4"

## 5. LATERAL CONSTRUCTION:

LATERAL LOAD RESISTANCE (OVER ONE)  
 SHEARWALL: ☒ DEBRILL: ☒  
 MOMENT RESISTANCE FRAME (OVER ONE)  
 SHEARWALL: ☐ DEBRILL: ☐  
 REFERENCE DETAIL SHEET:

## 6. TRUSS TYPE

BEAM TYPE:  
 BEAM SIZE:  
 TRUSS CONFIGURATION:  
 TOP CHORD:  
 BOTTOM CHORD:  
 WEBS:  
 TRUSS SUPPORTS:  
 REFERENCE DETAIL SHEET:  
 WOOD:  
 BEAM ON TO OTHER CONNECTION:  
 ROD (WOMENT RESISTING):  
 NON-ROD (DO NOT STAY):

## 7. ROOF FRAMING

RAFTER SIZE/GRADE: 2"x6" H.F. #2  
 RAFTER SPACING: 18" O.C.  
 INSULATION: R-18 UNFACED  
 CEILING:  
 ROOF GROUNDING: 8/8" TYPE X GYPSUM ON UNDERSIDE OF RAFTERS  
 ROOF SHEATHING:  
 ROOF SLOPE: 1"-12"  
 REFERENCE DETAIL SHEET:  
 WOOD: CABLE ROOF W/ 1/2" PER FOOT SLOPE  
 RIDGE BEAM: 1 3/4"x16" MICRO-LAM  
 30 GA. GALVANIZED ROLLED ROOF  
 DRAFT STOP CONSTRUCTION:

## 8. FLOOR FRAMING

JOIST SIZE & GRADE:  
 JOIST SPACING:  
 INSULATION:  
 BOTTOM BOARD:  
 FLOOR SHEATHING:  
 FLOOR GROUNDING:  
 REFERENCE DETAIL SHEET: DOUBLE 2"x8" ON END OF SHEAR WALL L-1 & L-2  
 WITH A SIMPSON A-34 ON EACH CORNER  
 WOOD:

## 9. FIELD CONNECTIONS - STRUCTURAL

ROOF FRAMING:  
 DEBRILL:  
 FLOOR FRAMING:  
 CHASSIS MEMBERS:  
 WOOD:  
 10. ROOF DETAILS:  
 PARAPET: ☐ YES ☒ NO  
 MANSARD: ☐ YES ☒ NO HEIGHT:  
 REFERENCE DETAIL:  
 DRAIN SYSTEM: ☒ YES ☐ NO  
 DETAIL: BY OTHERS

## 11. RIDGE BEAM

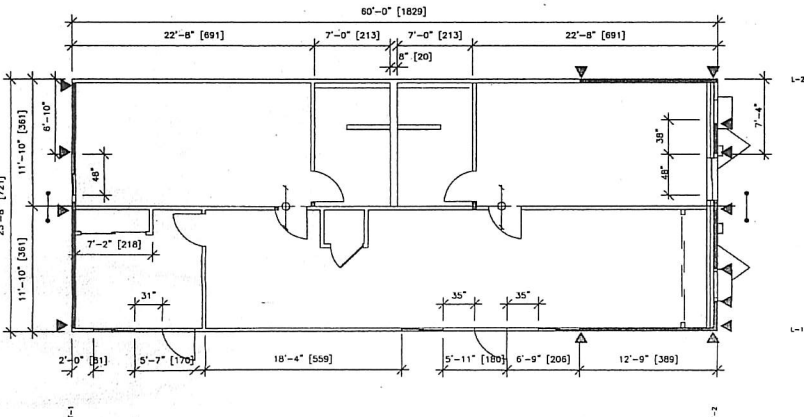
BEAM TYPE:  
 BEAM SIZE: 1 3/4"x16" MICRO-LAM  
 BEAM CONFIGURATION:  
 NO. OF LAYERS: 25  
 MAXIMUM SPAN: 25'  
 REFERENCE DETAIL SHEET:  
 WOOD:

## LEGEND

—○— FLOOR & ROOF FIELD MODLINE CONNECTION  
 SEE CONSTRUCTION NOTE NO. 9  
 —●— EXTERIOR FIELD MODLINE CONNECTION  
 SEE CONSTRUCTION NOTE NO. 9  
 ▲ SHEARWALL TIE DOWN LOCATION  
 SEE SHEARWALL SCHEDULE ABOVE  
 —●— INDICATES REFERENCE NUMBER OF SHEARWALL  
 AND MINIMUM LENGTH OF SHEARWALL REFER  
 TO SHEARWALL SCHEDULE ABOVE

## SHEARWALL SCHEDULE

SW NO.	WALL SECTION	SHEARWALL HEIGHT	TYPE OF SHEAR PANEL				CONN. OF S.W. TO:					TIE DOWNS					No. of REED FASTENERS		
			TYPE	AVAIL. FEET	DETH. FEET	ROOF SPACING	TYPE OF FASTENING	FLOOR	WALL	CEILING	STUD SIZE (W/ JOINTS) OF TIE DOWN	No. OF TIE DOWN	TYPE OF TIE DOWN	AMOUNT OF STRAPS	STRAP WIDTH	STRAP GUAGE			
T-1	16'-0"	108	7/16" INHERSIAL	248	248	1	84	4" - 12"	1.43	3 1/2"	3 1/2"	3 1/2"	1	184	E	1	10x24	30 GA	WALL = 20 NAIL FLOOR = 20 NAIL
T-2	13'-3"	108	7/16" INHERSIAL	320	320	1	84	3" - 12"	1	3 1/2"	3 1/2"	3 1/2"	1	184	E	1	10x24	30 GA	
L-1	8'-3"	108	7/16" INHERSIAL	248	248	1	84	4" - 12"	1.43	3 1/2"	3 1/2"	3 1/2"	2	2477	B	2	10x24	30 GA	WALL = 20 NAIL FLOOR = 20 NAIL
L-2	8'-3"	108	7/16" INHERSIAL	248	248	1	84	4" - 12"	1.43	3 1/2"	3 1/2"	3 1/2"	2	2477	B	2	10x24	30 GA	WALL = 20 NAIL FLOOR = 20 NAIL



## DESIGN CRITERIA

### GENERAL NOTES: (CALIFORNIA)

1. PROVIDE SIGN ADJACENT TO ENTRANCE STATING "THIS DOOR TO BE KEPT UNLOCKED DURING BUSINESS HOURS"
2. THIS STRUCTURE IS NOT TO BE LOCATED NOT LESS THAN 20 FEET FROM ADJACENT PROPERTY LINE. IF NOT 1 HRS. FIRE RATED.
3. EXIST DOORSHALL BE OPERABLE FROM THE INSIDE WITHOUT A KEY, OR ANY SPECIAL KNOWLEDGE.
4. LANDINGS AT EXIT DOORWAYS SHALL COMPLY WITH SEC. 3308 (a) USC, 1994 EDITION.
5. PROVIDE A MECHANICALLY OPERATED VENTILATION SYSTEM PROVIDING A MINIMUM OF 10 CFM PER OCCUPANT WITH 5 CFM OF OUTSIDE AIR.
6. ROOF COVERING SYSTEM SHALL BE T-25, CHAPTER 1, APPENDIX C-2 AND 5-436.3A.
7. GLAZING SHALL COMPLY WITH T-25, CHAPTER 1, 5-437.
8. SYSTEM TO BE USED FOR PLUMBING.
9. BUILDING IN ACCORDANCE WITH 1994 USC, 1991 USC, 1984 USC AND 1983 EDITION.
10. LIVE LOADS:  
 FLOOR: 100 LBS./SQ. FT.  
 ROOF: 20 LBS./SQ. FT.  
 WIND: 12.3 LBS./SQ. FT.  
 PARTITION: 20 LBS./SQ. FT.  
 STORAGE: 4 LBS./SQ. FT.  
 WIND SPEED: 70 EXPOSURE: C
11. DEAD LOADS:  
 ROOF: 8 LBS./SQ. FT.  
 BUILT UP ROOF: 1.5 PSF
12. SEPARATE TOILET FACILITIES SHALL BE PROVIDED FOR EACH SEX IN ADJACENT BUILDINGS ON THE SAME PROPERTY IF ADEQUATE TOILET FACILITIES ARE NOT PROVIDED IN BUILDING.
13. THE PLAN MAY BE REVERSED OR UNREVERSED.
14. IF ADEQUATE RESTROOM FACILITIES ARE NOT PROVIDED, RESTROOMS MUST BE PROVIDED IN ADJACENT BUILDINGS ON SAME PROPERTY BY SAME OWNER, IN ACCORDANCE WITH USC SECT. 310 (1)(a), (b) & (c).

PLEASE INCLUDE SHEET S-10.0 & S-12.0 OF STRUCTURAL PACKAGE WITH EVERY FLOOR PLAN

FP-251

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4/6/98 PAW

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 CONTRACTORS LICENSE NO. 368352 B

FLOOR PLAN COVER SHEET, INDEX AND SCHEDULE  
 THIS PAGE TO BE SUBMITTED WITH EVERY FLOOR PLAN

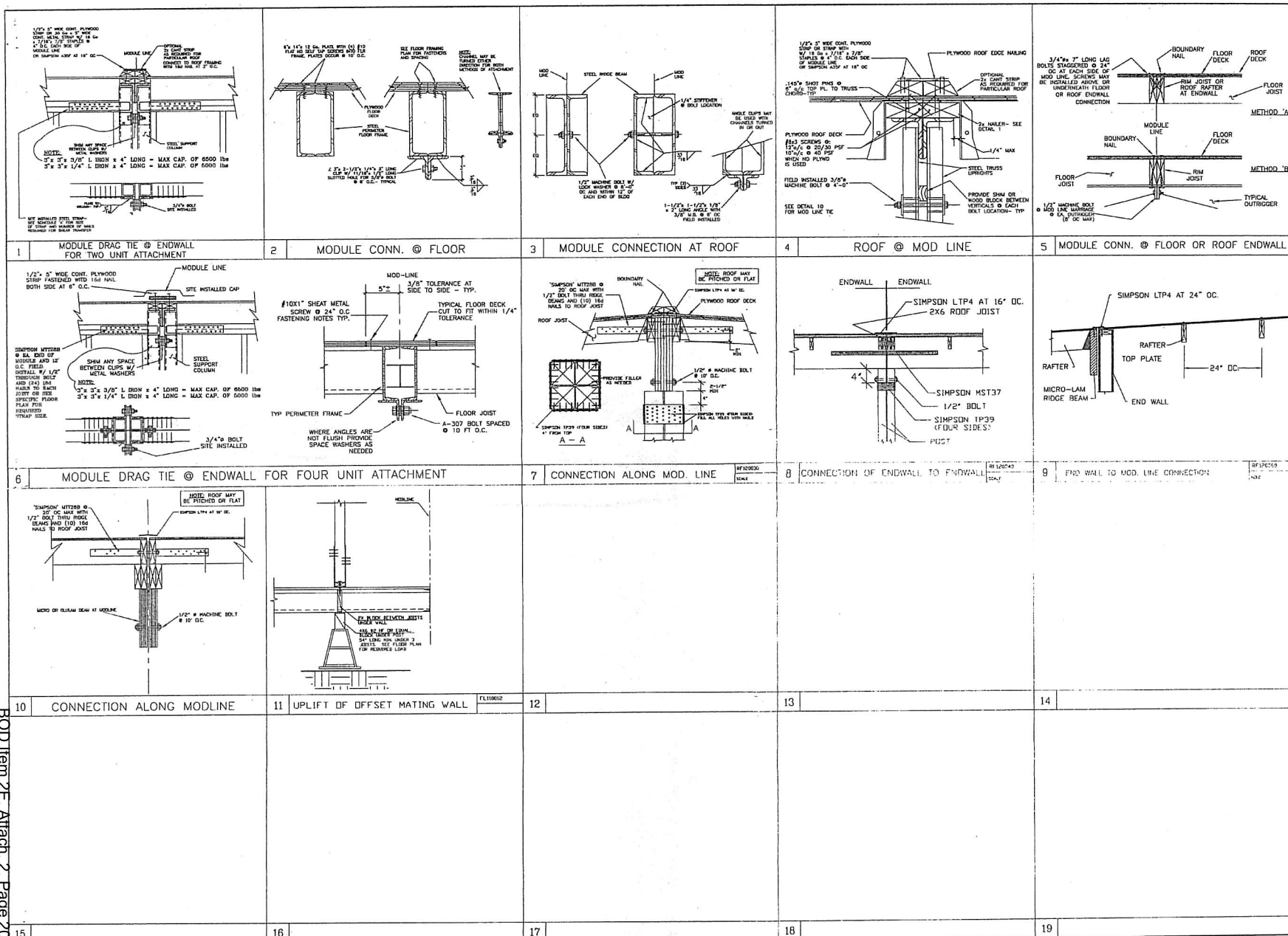
DRAWN BY:  
 W.O. NO.: 98005

SCALE: N.T.S.

SHEET

S-1.0

OF SHEETS



REVISIONS		BY
10/01/97	MDT	
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COMMERCIAL COACH STRUCTURAL PACKAGE		
REQUIRED ON SITE CONNECTION		THIS SHEET TO BE SUBMITTED WITH EXISTING FLOOR PLAN AS REQUIRED
DRAWN BY	gy	
CHECKED BY		
PLOT DATE	10/17/97	
SCALE	NONE	
JOB NO.	5-FEET	
S-12.0		
OF		SHEETS

**Temporary Apparatus Bay Tent:**



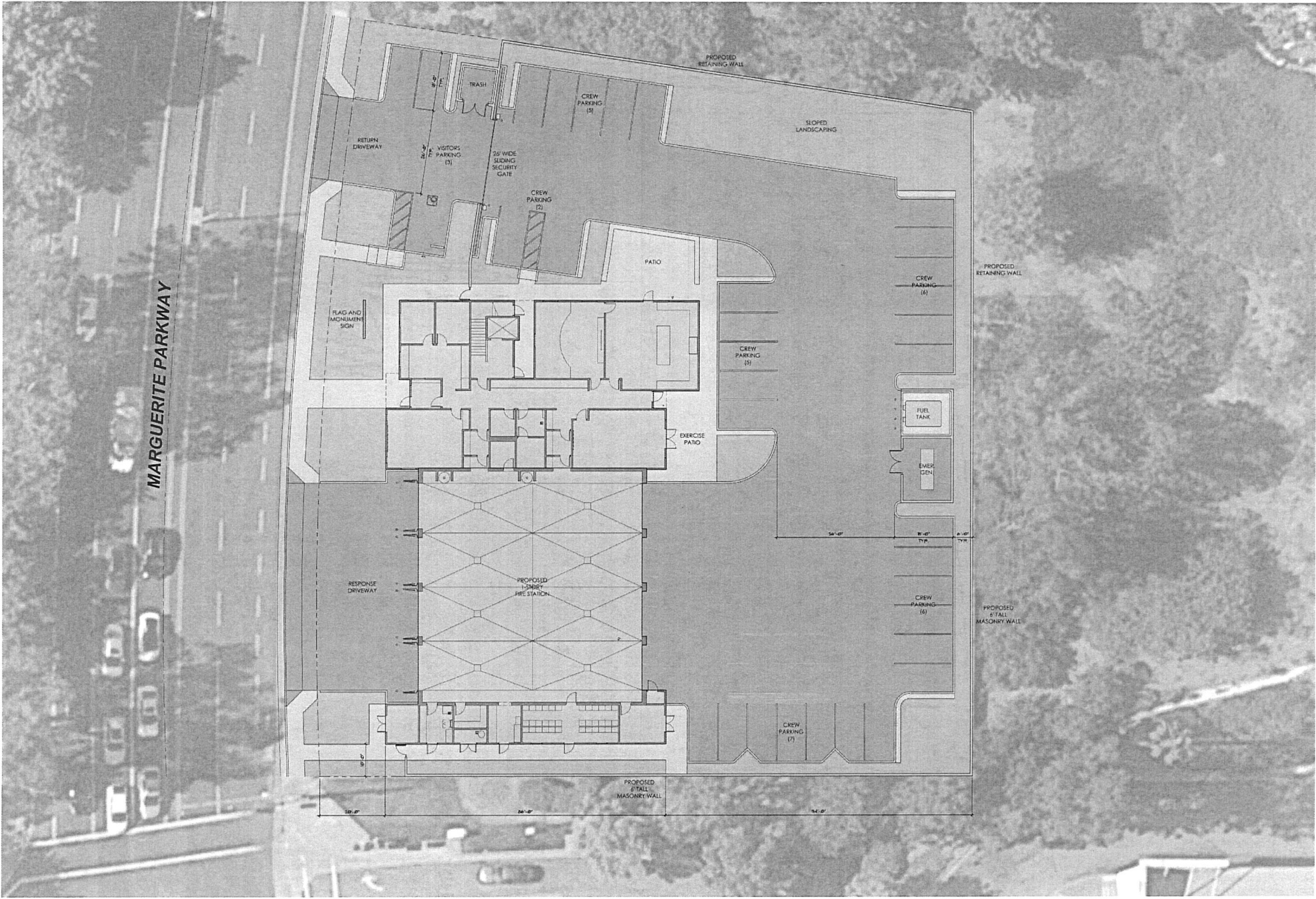
**5B: PERFORMANCE SPECIFICATIONS FOR REPLACEMENT FIRE STATION #24****Standard, Preferred and Excluded Materials and Systems**

1. Four apparatus bays capable of storing the largest OCFA truck and tractor drawn aerial
2. Design must comply with all City, State and Regulatory agencies. Architectural design must be approved by City planning and development.
3. Reinforced concrete drive surfaces and apparatus bay floor capable of supporting apparatus up to 75,000 GVR with a service life of 50 years. 4,500 psi concrete OCFA standard.
4. Landscape
  - a. Irrigation with telemetry control
  - b. Xerescape front with drought tolerant planting control
  - c. Drip irrigation as much as possible
  - d. Rear planting as little as possible
5. Exterior Lighting
  - a. LED
  - b. Site Light pole equipped with 120v outlet for apparatus charging
6. Roofs
  - a. Modified bitumen, built up, 20 year warranty
  - b. Water supply for HVAC maintenance
7. HVAC System
  - a. Cloud based Energy Management System, ie. Penguin
  - b. Roof units with economizers
8. Apparatus Bay Doors
  - a. Front – High speed can door, Porvener or equivalent
  - b. Rear – Can
9. Security gates and fencing
  - a. Powder coated or anodized aluminum
  - b. Motorized rolling gate
  - c. Millers edge, traffic loops and photo eye safety features
  - d. High/Low gate control entry keypad
10. Windows
  - a. High performance, low e, sound attenuating
  - b. No double hung, no crank opening
  - c. Tinted to limit heat gain and light
11. Storage Shed and out buildings included in design
12. Protect ladder access to the roofs, both sides of the apparatus bay
13. Patio, if applicable, with cover/lattice
  - a. Constructed of Alumawood or similar
  - b. Half covered, half lattice

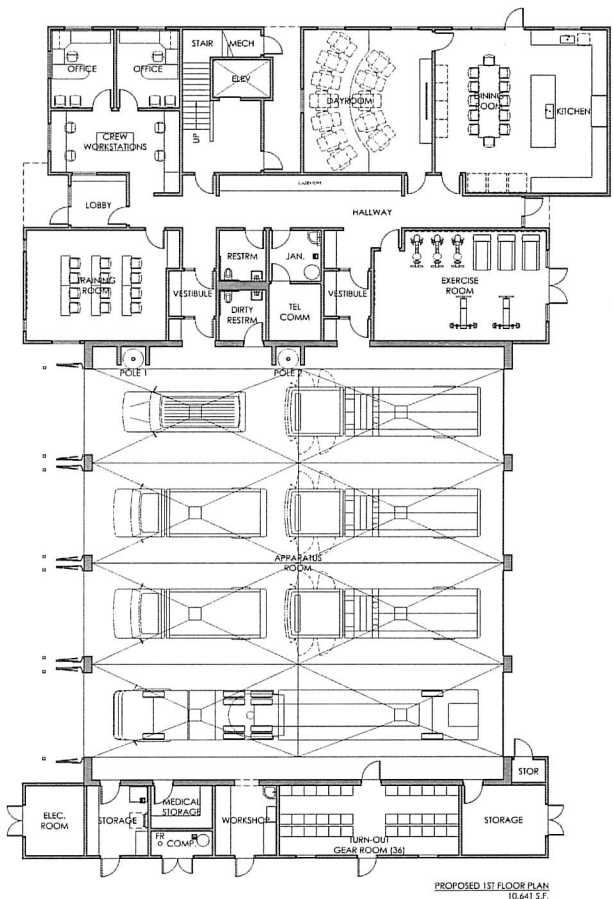
14. Barbeque
  - a. No built in
  - b. Location wired, natural gas line and lighted
15. Air compressor Ingersoll Rand
  - a. At least 140 PSI
  - b. Auto condensation bleed off
16. Turnout storage systems
  - a. Minnesota wire cages standard
  - b. 30 total
17. Vehicle exhaust recovery system – Plymovent is standard
18. Station alarm and alerting system through WestNet
19. Natural lighting in apparatus bay and kitchen if possible
20. Kitchen Ice maker – IceOmatic is standard
21. Apparatus bay work area with workbench
  - a. Cabinets, minimal maintenance, synthetic materials preferred
  - b. Galvanized top
  - c. Peg board back
22. Exterior trash enclosure
  - a. Metal, primed
  - b. Matching exterior color
  - c. Complementary to building architecture
23. House Hot Water (heater) System
  - a. Tankless
  - b. Kitchen instant hot
24. Potable Water filtration, kitchen only, main sink and coffee maker no RO
25. Window Covering
  - a. No vertical blinds
  - b. If mini blinds, 2" inch
  - c. Roller shades preferred
  - d. Flooring - Polished concrete no carpet
26. Cabinetry – Cabinets, minimal maintenance, synthetic materials preferred
27. Kitchen counter tops
  - a. Stainless steel with integral large double width sink (12" deep)
  - b. Counter with mariner's edge
  - c. Under-counter trash hole to accept a full sized plate
28. Paint/finishes
  - a. Interior wall – egg shell or semi-gloss, washable
  - b. Touch-up from corner to corner
29. Crew bathroom

- a. Shower with solid stone type material (no tile with grout joints)
  - b. Walls of stone type/man-made material, no grout joints
  - c. No white tile or white grout
  - d. Frameless shower door with 3/8 glass minimum, no pattern, opaque
30. Photovoltaic/solar generation
- a. PV powered exterior lighting
31. Remotely monitored Fire Alarm/Fire Like Safety System
32. Information Technology and Communications
- a. Cable, data and phone through local provider
33. Ladder training braces mounted on rear of the apparatus bay, one high, one low
34. Emergency Power Generator sized to 125% station requirement

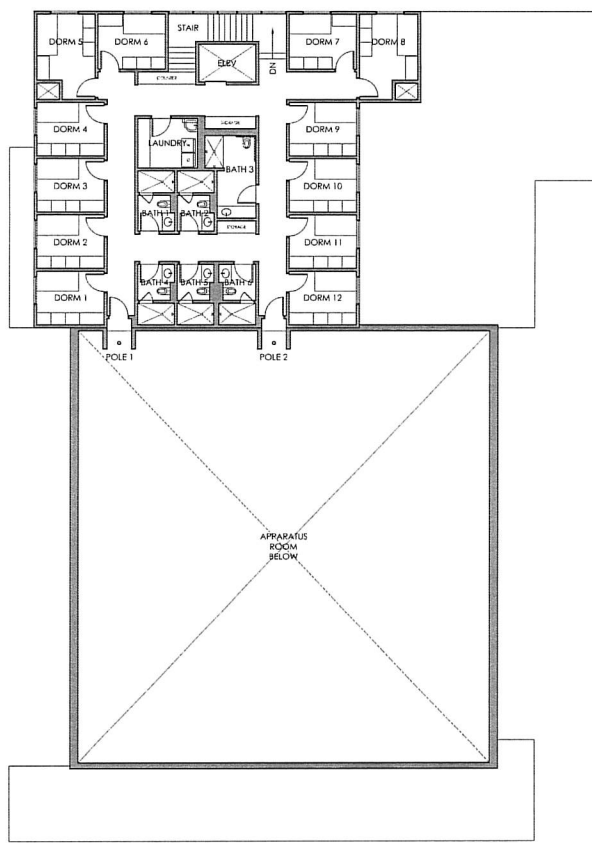
**5C: CONCEPTUAL DRAWINGS FOR REPLACEMENT FIRE STATION #24**



SITE AREA: 11.00 AC



PROPOSED 1ST FLOOR PLAN  
10,641 S.F.



PROPOSED 2ND FLOOR PLAN  
2,820 S.F.

PROPOSED BUILDING AREA: 13,460 S.F.

**5D: EXAMPLES OF ANDALUSIAN DESIGN**



MADRID... 341<sup>re</sup> Palacio Árabe del Prado. J. Laurent y C<sup>ia</sup> Madrid. Reprografía. España.

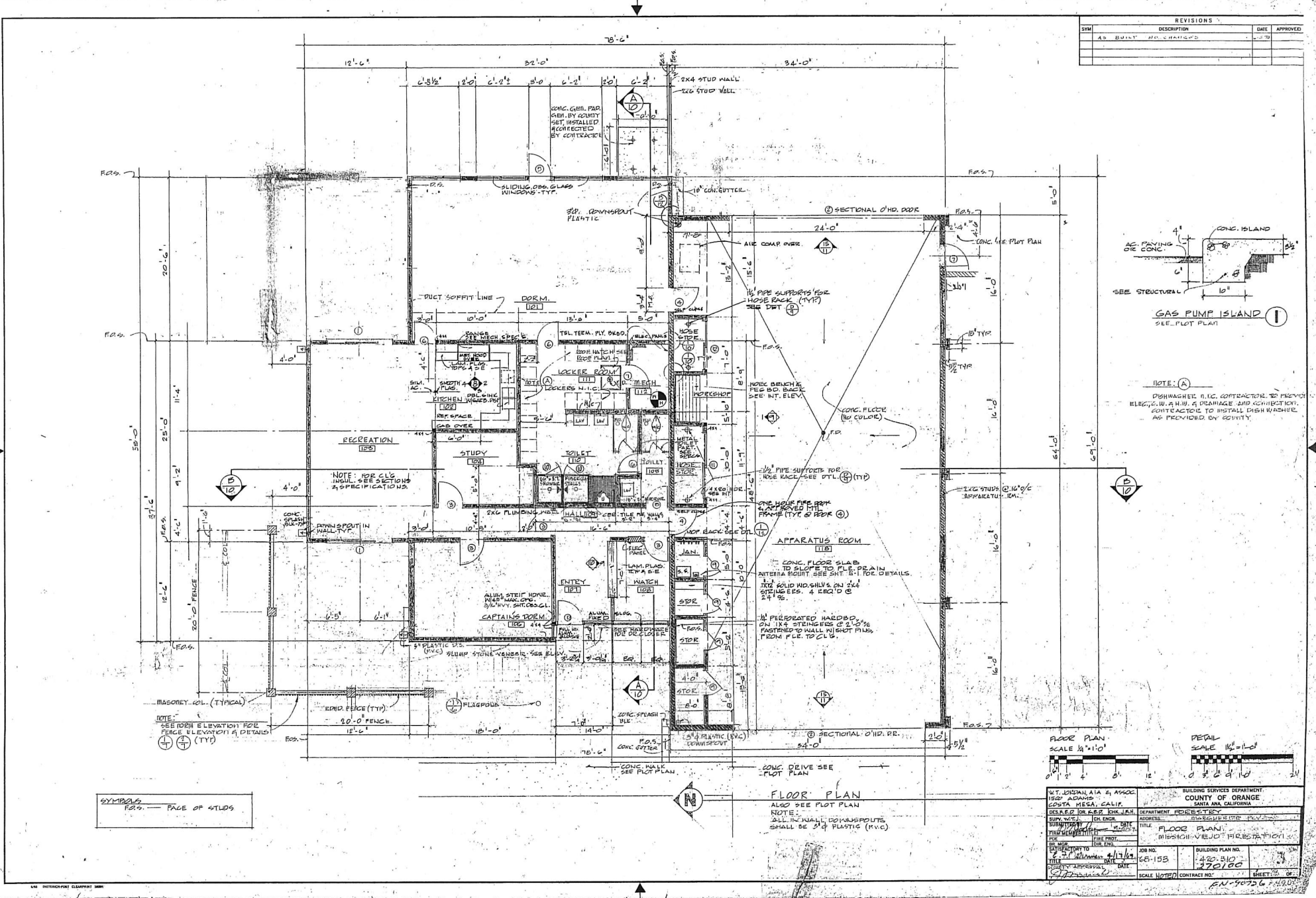


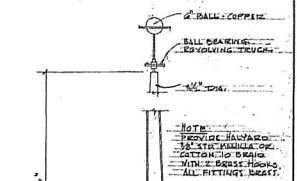




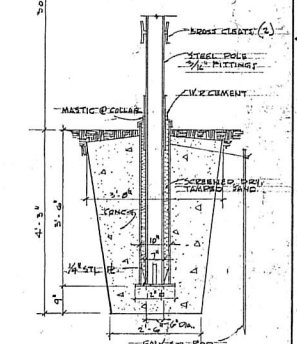


**5E: EXISTING FIRE STATION #24 AND SITE PLAN DRAWING**





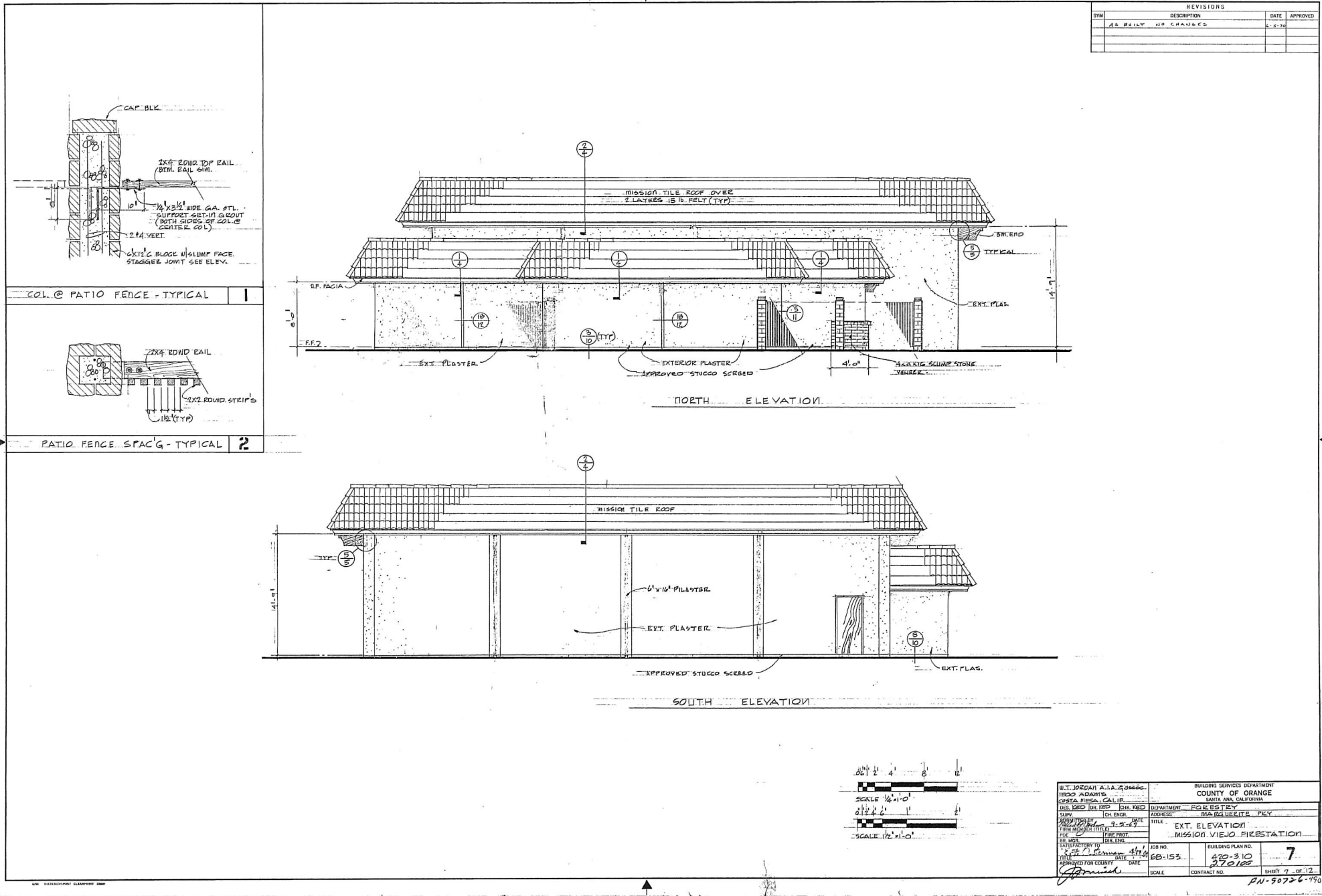
WEST ELEVATION.



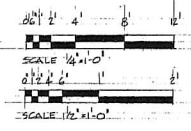
FLAG POLE DET. ①



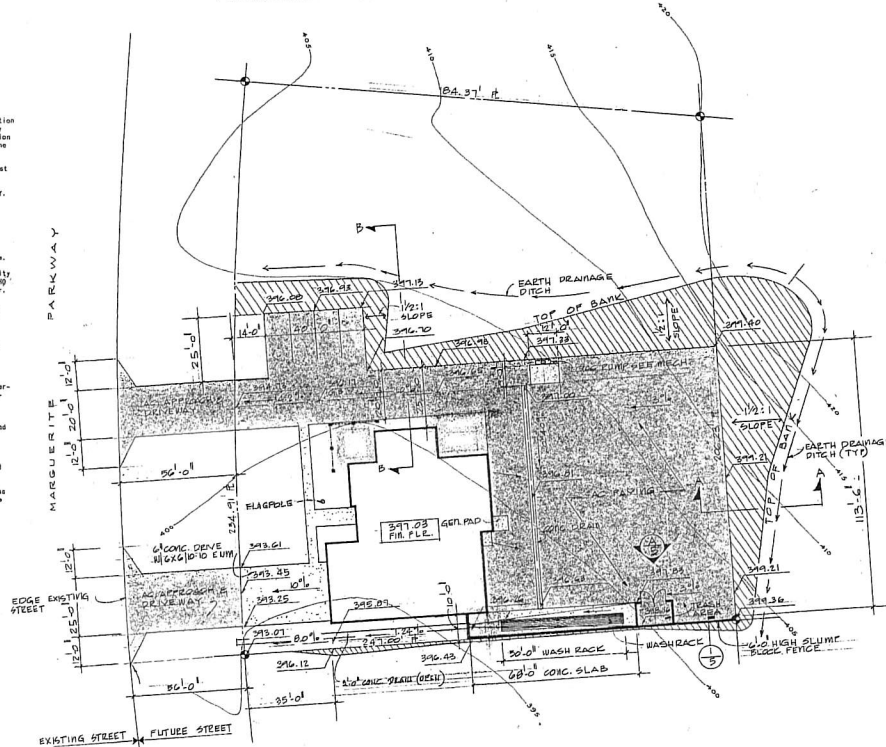
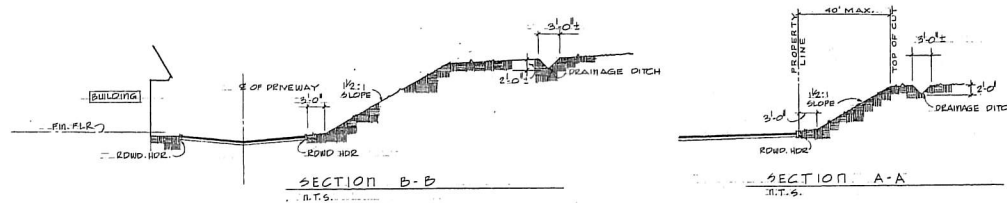
MRS. BRIDGES, A. A. 42666 1500 ACADIAN COSTA MESA, CALIF.		BUILDING SERVICE DEPARTMENT COUNTY OF ORANGE SANTA ANA, CALIF.	
SUPV. DESIGNED BY DRAWN BY CHECKED BY DATE PERM. NO.	DEPARTMENT - <u>PEDESTAL</u> PROJECT - <u>STAGG STREET</u> TITLE <u>EXT. ELEVATIONS</u> <u>MINOR VIELD REPAIRS</u>	JOB NO. <u>66-153</u>	BUILDING PLAN NO. <u>170860</u>
PERM. NO. <u>4-178</u> APPROVED FOR COUNTY <i>(Signature)</i>	DATE SCALE <u>1"=1'-0"</u> CONTRACTOR SHEET <u>6</u> OF <u>12</u>		



REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED
AS BUILT	NO CHANGES	5-5-78	



B.T. JORDAN A.I.A. 594460		BUILDING SERVICES DEPARTMENT	
1000 ADAMS		COUNTY OF ORANGE	
COSTA MESA, CALIF.		SANTA ANA, CALIFORNIA	
DES. DES. OR. DES. OR. DES. OR. DES. OR.	DES. DES. OR. DES. OR. DES. OR. DES. OR.	DEPARTMENT	FORESTRY
ADDRESS		ADDRESS	
TITLE		TITLE	
EXT. ELEVATION		EXT. ELEVATION	
MISSION VIEJO FIRESTATION		MISSION VIEJO FIRESTATION	
JOB NO.		BUILDING PLAN NO.	
68-153		40-310	
DATE		DATE	
4/1/78		4/1/78	
CONTRACT NO.		CONTRACT NO.	
PN-90726-190		PN-90726-190	

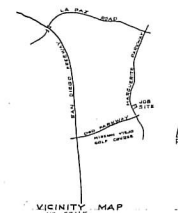


### Plot plan

SEE SHEET 2 FOR  
EXISTING GRADES  
SCALE: 1"=20'-0"

LEGAL DESCRIPTION  
PORTION LOT 3, T.15, R.25W  
COUNTY OF ORANGE, CALIF.

NOTE - EXCESS MATERIAL SHALL BE  
DEPOSITED IN AREA APPROVED BY  
MISSION VIEJO CO. AND SHALL BE  
REMOVED IN 15 DAYS AND THOROUGHLY  
COMPACTED TO THE SATISFACTION  
OF MISSION VIEJO COMPANY.



AS BUILT 6-8-70

BUILDING SERVICES DEPARTMENT COUNTY OF ORANGE SANTA ANA, CALIFORNIA	
BUILDING PLAN NO. 400-310 270100	SHEET NO. 1
CONTRACT NO. 1980026-490	

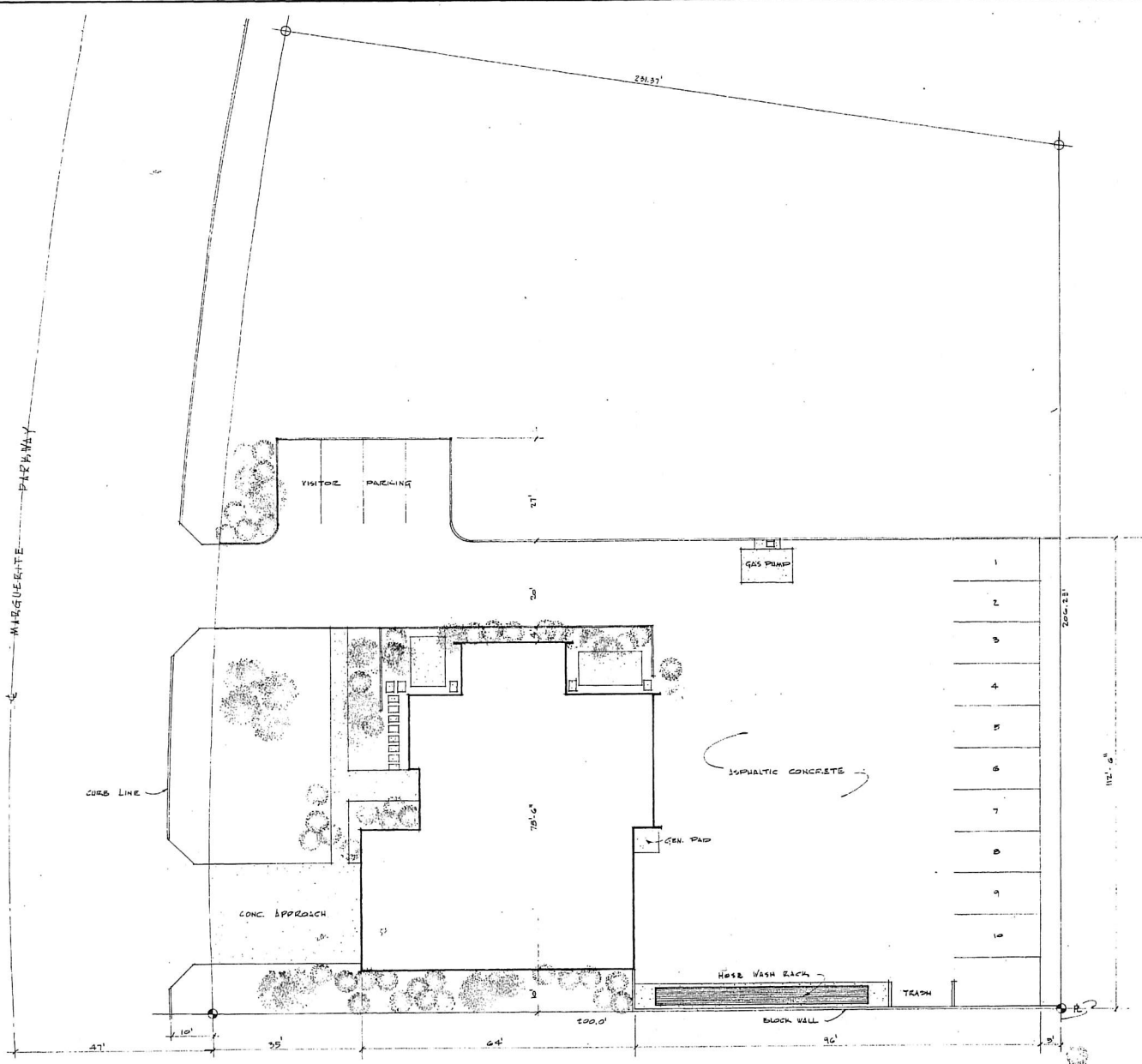
## I N D E X

SHEET NO.	DESCRIPTION
1 arch	PLOT PLAN INDEX
2	GRADING PLAN [EXISTING]
3	FLOOR PLAN
4	ROOF PLAN
5	SCHEDULE & DETAILS
6	EXTERIOR ELEVATIONS
7	EXTERIOR ELEVATIONS
8	INTERIOR ELEVATIONS
9	INTERIOR ELEVATIONS
10	SECTION & DETAILS
11	DETAILS
12 arch	DETAILS
13 S-I-struct	TYPICAL DETAILS
14 S-2	FOUNDATION PLAN
15 S-3	ROOF FRAMING PLAN
16 M-I-mech	PLOT PLAN
17 M-2	PLUMBING FLOOR PLAN
18 M-3	MECHANICAL FLOOR PLAN
19 E-I-elec	ELEC. PLOT PLAN & DETAILS
20 E-2	ELEC. FLOOR PLAN
21 E-3	ELEC. POWER PLAN
L-1	Landscaping
L-2	Sprinklers

**MISSION VIEJO**  
firestation  
county of orange

AS BUILT  
270100

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED



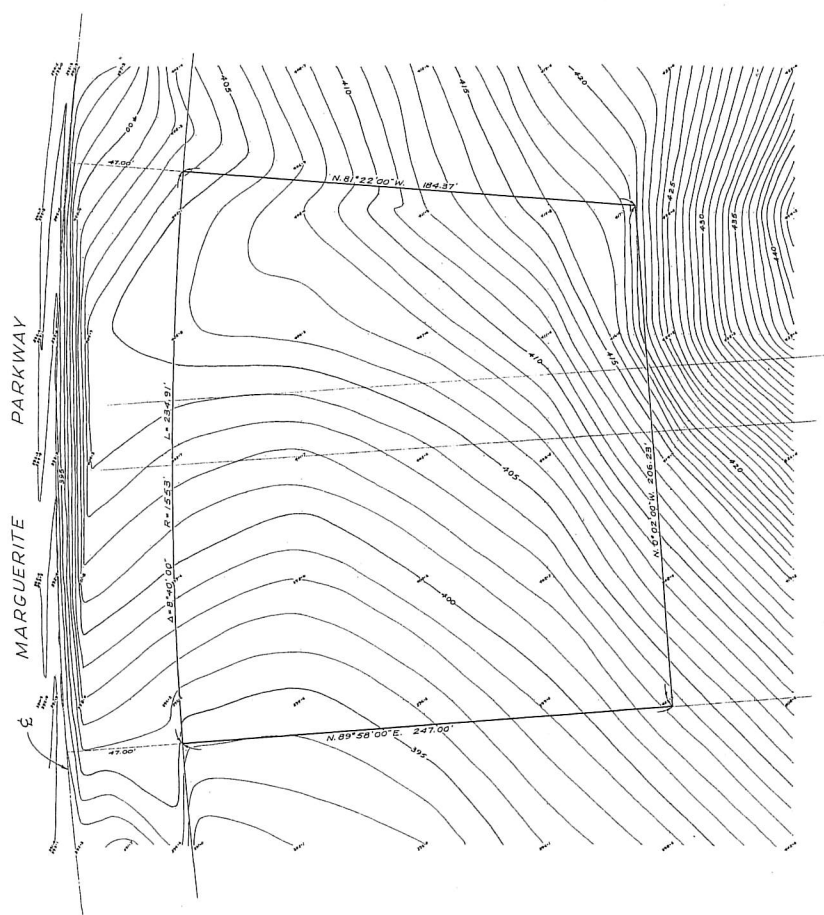
# PLOT PLAN



**STA. # 24**

W.T. JORDAN, AIA, R.A.S.C.		BUILDING SERVICES DEPARTMENT	
1820 ADAMS ST. SANTA ANA, CALIF.		COUNTY OF ORANGE	
DES.	DR.	CHK.	DEPARTMENT / PROJECT
SUPV.	CH. ENGR.	DATE	ADDRESS: MARGUERITE PARKWAY, MISSION VIEJO
DESIGNED BY	DATE	TITLE	
DR. W. J. JORDAN	10/20/80	PRELIMINARY PLOT PLAN	
DR. W. J. JORDAN	10/20/80	MISSION VIEJO FIRESTATION	
SATISFACTORY TO	JOB NO.	BUILDING PLAN NO.	
TITLE	DATE		
APPROVED FOR COUNTY	DATE		
		SCALE	CONTRACT NO.
			SHEET 31 OF 41

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED
AS BUILT	NO CHANGES	6-27-74	



This plan does not constitute a survey of the property shown. Property lines are shown as indicated on a drawing prepared by the County of Orange Department of Real Property Services, entitled "Mission Viejo Fire Station 1, project N.G.A. 859."

BENCH MARK  
Top of 42" iron pipe on top of dome behind 4th green of golf course.  
Elevation = 454.31  
Contour interval = one foot.

TOPOGRAPHY OF PORTION OF SECTION 1, T.7S., R. 8W. (MISSION VIEJO) --ORANGE COUNTY, CALIFORNIA		WILLIAM T. JORDAN, A.I.A. 18257 ADAMS AVE. COSTA MESA, CALIF.		BUILDING SERVICES DEPARTMENT COUNTY OF ORANGE SANTA ANA, CALIFORNIA	
DONALD E. STEVENS, INC., CIVIL ENGINEERS 116 EAST 18TH STREET, COSTA MESA, CALIF. Tel. 546-8915		DATE OCTOBER 10, 1968		FIELD BOOK 12-39	
JOB NO. 336		DATE 10/10/68		SCALE 1"=20'-0"	
CONTRACT NO. 12-39		JOB NO. 68-153		BUILDING PLAN NO. 40926-490	
DATE OCTOBER 10, 1968		FIELD BOOK 12-39		JOB NO. 68-153	
CONTRACT NO. 12-39		JOB NO. 68-153		BUILDING PLAN NO. 40926-490	
DATE OCTOBER 10, 1968		FIELD BOOK 12-39		JOB NO. 68-153	
CONTRACT NO. 12-39		JOB NO. 68-153		BUILDING PLAN NO. 40926-490	

FN-90726

**5F: FF&E FOR REPLACEMENT FIRE STATION #24**

ITEM/DESCRIPTION MODEL #	QTY	BRAND
<b><u>OCFA OFFICE ITEMS (OCFA Purchase and Installation)</u></b>		
Calculator / XRX-230	2	Xerox
P-Touch Labeler	1	Brother
HD Shredder / XCT12	1	Ativa
28 QT Waste Basket	12	Any Brand
Wall Clock (10")	8	Staples
Desk Lamp	5	Staples
Staplers (#747)	3	Staples
Pencil Sharpner (electric)	2	Panasonic
28 Hook Style Key Box	1	Staples
36"x 48" Dry Erase Board	1	Staples
36" x 48" Cork Board	1	Staples
<b><u>OCFA MAINTENANCE ITEMS (OCFA Purchase and Installation)</u></b>		
HD Dustpan (hand) / 2006-28	2	Rubbermaid
HD Dustpan (long handle) / 2531-20	1	Rubbermaid
Pro Broom (regular) / 745	4	
Floor Squeegee 36"	1	Ettore
Squeegee Handle 60"	1	Quickie
Window Squeegee - Size 16	2	Ettore
Bucket	2	Leaktite
Brush (Toilet)	3	HDX
Wet Mop	2	Quickie
Wringer	2	Rubbermaid
Brush, Handscrub	1	Carlisle, Case of 12
<b><u>OCFA TOOLS (OCFA Purchase and Installation)</u></b>		
Steel Leaf Rake / 1A	2	Flexrake
Bypass Pruner / BP 6190	1	Corona
1 5/8" Bypass Lopper	1	Fiskars
Garden Hoe / 335-086	1	Homegardner
Shovel (round point)	1	Homegardner
Shovel (square point)	1	Homegardner
Pro Garden Sprayer-2 Gal.	1	Round-Up
Garden Hose Nozzle Industrial	2	Goodyear
Garden Hose-50'-5/8" Durable	3	WaterWorks
Gas Power Blower / PB-201	1	Echo
Portable Garden Hose Reel	1	Homegardner

ITEM/DESCRIPTION MODEL #	QTY	BRAND
Extension Cord -50'	2	Comm. Elect
File Set/Handles / 163-893	3	Workforce
12" Mill File / 21842	2	Nicholson
File Handle / 21474	1	Nicholson
Bench Brush / #408	2	Quickie
HD 3/8" Drill Motor (Milwaukee)	1	DeWalt
Drill Bit Set - 81 Piece	1	Ryobi
Locking Plyer Set(3 piece) / 253157	1	Husky
Saw - 20" / 20-029	1	Stanley
Plier Set (4 piece set)	1	ChannelLock
Measuring Tape (30 ft.) / 30-455	1	Stanley
8" Bench Grinder (BGH825)	1	Ryobi
6" Wire Grinder Wheel(course)16801	1	Ver. Amer.
6" Wire Grinder Wheel (fine) 16802	1	Ver. Amer.
Fat Max Hammer (20 Oz.) / 51-944	1	Stanley
Rubber Mallet (16 oz.) /676-989	1	Workforce
Ball Pean Hammer-16 oz.	1	Husky
Hack Saw / 20-265	2	Stanley
12" Hack Saw Blades (24 tooth)	1	Buck Bros.
12" Hack Saw Blades (32 tooth)	1	Buck Bros.
Tire Inflator/Guage	1	Husky
Air Chuck/Nozzle Set / IM 1/4"	1	Husky
6" Heavy Duty Bench Vise / 11106	1	Wilton
Mechanic Tool Set (254 pc) / 33354	1	Craftsman
Mechanic Creeper / 51147	1	Craftsman
Screwdriver Set (20 pc) / 41516	1	Craftsman
3/8" x 50' Air Hose	1	Amflo
Hedge Trimmer	1	Forge
17" String Trimmer (185275)	1	Troy Built
6 gal Safety Can	1	Eagle
6' Fiberglass step ladder (type1AA)	1	Any Brand
3 step - stepladder	1	Any Brand
Vacuum	1	Oreck
Janitorial Cart	1	Waxie
Adjustable Wrench set - 3 piece	1	Husky
<b>OCFA KITCHEN ITEMS (OCFA Purchase and Installation)</b>		
Electric Can Opener / SCO-60	1	Cuisinart
4 Slice Toaster / CPT-180	1	Cuisinart

ITEM/DESCRIPTION MODEL #	QTY	BRAND
Blender-Processor / BFP-703CH	1	Cuisinart
Forged Cutlery 20 piece	1	Cuisinart
Cast iron skillets set (4", 6", 8")	1	Tools of the Trade
Dinnerware(4 piece)White / B7910	3	Espana
Flatware, 89 piece / K8668900	1	Cuisinart
SS Cookware, 16 piece set	1	Tools of the Trade
SS Lasagna pan / 1106682	1	Tools of the Trade
SS Colandar	1	Update
BBQ Tools 5 PC	1	Mr. BBQ
Grater / 3199	1	Alegacy
Cutting Board (14x20)	1	Foley Martens
Lasagna Turner	1	Amer. Metal Craft
Ladle, Medium	1	Update
Turner	1	Update
SS Tong (16")	1	Alegacy
Tumbler (20 oz.) Set of 5	2	Cambro
Thermometer, Oven / 323	1	Cooper
Sugar Pourer (set of 2) 12 oz.	1	Chef's Review
Masher / 1718	1	Alegacy
BBQ Mit	2	Chef's Review
Laguna Pitcher (set of 2) 60 oz.	1	Cambro
Spatula (9")	1	Traex

ITEM/DESCRIPTION MODEL #	QTY	BRAND
Measuring Cup (1 qt.) / 59502	1	Cambro
Cheese Shaker (set of 2)	1	Chef's Review
Salt/Pepper Shaker (set of 6)	1	Chef's Review
Spoon, Wooden 12"	1	Any Brand
Measuring Set (dry measure)	1	Tablecraft
Veg. Peeler	1	Echo
Bottle/Can Opener	1	Franmara
Wire Whip 16"	1	Update
Ice Cream Scoop	1	Tablecraft
13" Spoon Slotted	1	Alegacy
13" Spoon Solid	1	Alegacy
13" Spoon Round Hole	1	Alegacy
Baking Pan, Full	1	Chef's Review
Baking Pan, Half	1	Chef's Review
44QT Trash Can	2	Rubbermaid
3 cup sifter	1	Chefmate
Knife Sharpener (hand)	1	Chef's Choice
13" x 20" Roaster	1	Chefmate
Soup Bowls (white)	8	Any Brand
8 piece plastic storage bowl set	1	Any Brand
Can opener (hand)	1	Swingaway
Slicer	1	Chefmate
12 cup muffin pan	1	Kitchen Essentials
9x 13 cake pan	1	Kitchen Essentials
3qt. S/S Bowl	2	Kitchen Essentials
5qt S/S Bowl	1	Kitchen Essentials
8qt S/S Bowl	1	Kitchen Essentials
9" round cake pan	1	Kitchen Essentials
Lrg Loaf Pan	1	Kitchen Essentials
8" SQ Bake Pan	1	Kitchen Essentials
Lrg Bake Pan	1	Kitchen Essentials
Cutlery tray	1	Any Brand
Utensil tray	1	Any Brand
Breaker Bar	1	Husky
Grease Gun	1	Lucas
Can (Oily Waste Rags)	1	Just Rite
<b>OCFA TV AND ACCESSORIES (OCFA Purchase and Installation)</b>		
40" Television (CT27SL15)	1	Samsung

ITEM/DESCRIPTION MODEL #	QTY	BRAND
DVD/VCR Player (SDV393)	2	Toshiba
<b><u>OCFA CREWS QUARTERS</u> (OCFA Purchase and Installation)</b>		
Bedspreads Color - To Be Selected By OCFA	10	Any Brand
Matress Pads - White	10	Any Brand
Pillow Cases - White	10	Any Brand
Pillows - White	10	Any Brand
Bedframes	10	Royal Mattress & Service Center
Matresses	10	Royal Mattress & Service Center
<b><u>G.C. TV AND ACCESSORIES</u> (General Contractor Purchase and Installation)</b>		
42" Television (20AF45) (gym)	1	Samsung
TV Mount (Black)	1	Any Brand
DVD/VCR Mount	1	Any Brand
<b><u>G.C. PATIO</u> (General Contractor Purchase and Installation)</b>		
Patio Table -Concrete ADA	1	Quikcrete
Patio Table - Concrete 42" Square	2	Quikcrete
Umbrella	3	Lowes
Recycle Receptacle	1	Quikcrete
Trash Receptacle	1	Quikcrete

DESCRIPTION	QTY	MODEL INFORMATION
<b>G.C. APPLIANCES (General Contractor Purchase and Installation)</b>		
Refrigerator, 21 c.f.	3	LG
Washer	1	Speedqueen
Dryer, Gas	1	Speedqueen
Countertop Microwave Oven-1.8 cf	1	GE Profile-Model JE1860SB
Range	1	Imperial w/ Electronic Ignitor
Hood	1	Imperial (Match Range)
Dishwasher	2	TBD
	1	
Garbage Disposal	1	TBD
Freight		

DESCRIPTION	QTY	MODEL INFORMATION	VENDOR
<b>GPS</b>			
GPS L1 Repeater Assembly Amplifier, Passive Antenna and Mount	1	A11-M-P110/5-NF-NM	GPS Source
GPS L1 Active Antenna 36dB Gain and Mount	1	L1A-PM-NF	GPS Source
100 ft cable with N (male) connectors	1	C240-100-N	GPS Source
WEATHERHEAD MOUNT KIT	1		
<b>Cable TV</b>			
Rack Mounted Splitter, 24 Way	2	DFCS-24	Blonder Tongue
Splitter, 2 Way	1	SXRS-2	Blonder Tongue
<b>SERVER RACK 2-POST RACK SYSTEM (MDF)</b>			
<b>CHATSWORTH TWO RACK APPLICATION</b>			
STANDARD 19IN RACK BLK	3	GB Part #: 94058665	Graybar
SUPPORT ARMS FIXED 1 PAIR 1 RMU BLACK	1	GB Part #: 22069922	Graybar
BASE DUST COVER 19IN BLACK	3	GB Part #: 96079990	Graybar
ANCHOR KIT 4EA CONCRETE	3	GB Part #: 25027577	Graybar
TOUCH UP BLACK SPRAY PAINT	1	GB Part #: 95018196	Graybar
<b>CABLE MANAGEMENT</b>			
EVOLUTION VERT CABLE MANAGER DOUBLE SIDED 6IN	4	GB Part #: 25181482	Graybar
SIDE PANEL ECM 7FT EACH	2	GB Part #: 25213128	Graybar
ECM HORIZ SGL 19 INWX1U BK	9	GB Part #: 25189263	Graybar
EVOLUTION 2RMU HORIZ CBL MGR SGL SIDED	9	GB Part #: 25181485	Graybar
<b>PATHWAYS</b>			
12IN ADJUSTABLE LADDER RACK	3	GB Part #: 25813135	Graybar
18IN ADJUSTABLE LADDER RACK	3	GB Part #: 25815697	Graybar
ADJUSTABLE CABLE RUNWAY GROUNDING STRAP	1	GB Part #: 25845263	Graybar
TOOL-LESS PATHWAY DIVIDERS 6IN (10PK)	1	GB Part #: 25820241	Graybar
12 INCH RADIUS DROP	3	GB Part #: 25816957	Graybar
18 INCH RADIUS DROP	3	GB Part #: 25816958	Graybar
RADIUS DROP STRINGER SMALL BLACK	3	GB Part #: 25843206	Graybar
BUTT SPLICE 1.5 STRG BKZ	1	GB Part #: 22025498	Graybar
JUNCTION SPLICE 1 1/2 STG	1	GB Part #: 22026123	Graybar
RACK MOUNTING PLT 9-12 BLK	3	GB Part #: 94058657	Graybar
ADJ RK MTG PLTE 15-18 BLK	3	GB Part #: 96092090	Graybar

DESCRIPTION	QTY	MODEL INFORMATION	VENDOR
RACK ELEVATION BLACK	3	GB Part #: 99836888	Graybar
BRACKET FORM TRI 12 IN BLK	1	GB Part #: 96051782	Graybar
18 IN TRIANG SUP BRKT BLK	1	GB Part #: 96079983	Graybar
WALL ANGL SPRT 12IN BLK	1	GB Part #: 94058660	Graybar
WALL ANGL SUPT KIT 18IN	1	GB Part #: 96079974	Graybar
BLACK RUNAWAY FOOT KIT	1	GB Part #: 94058658	Graybar
THREADED ROD CEILING KIT	1	GB Part #: 88083737	Graybar
THREADED ROD CEILING KIT	1	GB Part #: 88083738	Graybar
RUNAWAY WALL BRACKET PAIR BLACK	1	GB Part #: 25319152	Graybar
CBL RWAY T BAR BLK 12 IN	1	GB Part #: 97272553	Graybar
18IN SUP T BAR CBL BLK	1	GB Part #: 99702268	Graybar
CABLE RACK END CAPS PAIR	1	GB Part #: 89026695	Graybar
<b>GROUNDING AND BONDING</b>			
STANDARD BUSBAR 1/4INX4INWX12	1	GB Part #: 22071237	Graybar
VERTICAL RACK GROUND BAR KIT	3	GB Part #: 25213236	Graybar
RACK GROUND JUMPER KIT	3	GB Part #: 25639081	Graybar
6MTW GRN W/YELL TRACE 100FT	1	GB Part #: 25213238	Graybar
<b>PDU FOR RACKS (2 PER RACK)</b>			
TRIPPLITE PDUMH20-ISO	6	GB Part #: 25725736	Graybar
<b>WESTNET PA &amp; ALERTING (Westnet to Purchase and Install) Refer to dwgs. for quantities and location of the following devices:</b>			
First-In MCU Auxiliary Module Lite	1	FIN-AUX-L01	
First-In MCU Remote Monitor Switch	1	MCU-SW-MON	
MCU Rack Mount Kit	1	FRMKIT5X19	
Control Remote (each controls up to 8 functions)	1	SCR26-24VC5	
Doorbell Button	1	SDBS1	
Dorm Remote - Flush Mount Kit also Required	12	SDRM38V-FM	
Dorm Remote - Flush Mount Hoffman Kit	12	SDRMKIT-HOF	
High Power Paging Audio Module (includes one speaker)	4	SHPA150	
High Power Paging Audio Module (includes one speaker)	1	SHPA150-D	
Powre Module w/ Hub & Spoke Controller, UPS & Dual Power Supplies	3	SPC28-HS-1K2PS	

DESCRIPTION	QTY	MODEL INFORMATION	VENDOR
Volume Controller	13	SPK-VC	
Satellight (driven off Satelight Controller)	10	SSAT	
Satellight Mounting Kit - TBD	27	SSATKIT-TBD	
Satellight Controller	19	SSAT-M	
Emergency Button	2	SSETS	
Outside Speaker Audio Module (includes one speaker)	3	SS_OSA	
Appliance and Systems Interface Unit	1	SS-SAIU-10	
Telephone Interface Module	1	SS-TIM-01	
Radio Monitor Switch	1	SSMSW	
System Test Button	1	SSTSW	
Turnout Timer (Medium)	4	SS-TTMR-M	
Company Indicator (App Bay) Large 35"	1	SS-CI35C-LG	
Lift Service Fee	1	SVC-LIFT-FEE	
<b>OCFA SYSTEMS - (OCFA Purchase and Installation)</b>			
<b>RADIO COMMUNICATIONS EQUIPMENT</b>			
<b>NETWORK EQUIPMENT</b>			
Allentel Cat 6 48 port patch panel (4 in IDF - 3 in MDF)	6	AT66-PNL-48	AllenTel
Meraki MR44 (Wireless AP's)	7	MR46	Meraki Cisco
Meraki AP license for each device (5 years)	8		Meraki Cisco
Meraki MR46E-HW W/Antennas (App Bay)	1	MR46E-HW	Meraki Cisco
ALLENTEL CAT 6 PATCH CABLES BLUE AND WHITE	100		
<b>Audio Video For Training Room</b>			
Audio Video Needs Estimate		We used Extron for FS20 and 60	Extron
<b>TELEPHONE SYSTEM</b>			
Cisco Phone System	1	Cisco Phone System 24 Phones	Cisco
Cisco Phone Install Services	1		
911 Phone Emergency Call Box (RED)	1	Allentel	GB 90VS-02-H

DESCRIPTION	QTY	MODEL INFORMATION	VENDOR
<b>OCFA GYM EQUIPMENT - "WE FIT" PROGRAM (OCFA purchase and Installation)</b>			
<b><u>2 Unit Station</u></b>			
2 Stairmaster 510+ treadmill			
1 Stairmaster 3800RC recumbent bike			
1 Stairmaster 4400 CL Climber			
Dumbbells (25#-70#) with rack			
Paramount flat/incline bench			
Paramount 3-way Olympic bench press			
300# weight set (plates, tree, bar, collars)			
Core Apparatus			
4 AFP mats (23"x56")			
1 TKO 65cm physioball			
2 TKO heavy duty exercise bands			
Algra wall posters			
Weight training flexibility			
Target heart rate			
Male anatomy guide			
Freight/installation			
<b>G.C. APPARATUS EQUIPMENT (General Contractor Purchase and Installation)</b>			
HEAVY DUTY HOSE/SCBA SYSTEM	1	Geargrid Mobil Hose/SCBA	Minnesota Wire Co.

DESCRIPTION	MODEL INFORMATION	VENDOR	QTY
OCFA CAPTAIN'S OFFICE (OCFA Purchase and Installation)	1 Person Captain's Office	Interservice or Alternate Approved by Owner	
	T624CB Cantilever Bracket 24D & 30D		4
	ESS OH STG CAB 36w/flat pntd dr/ non-assist/no pull		4
	860836 ESS Half Height Open Bookshelves 36W x 13-1/4D x 8H		2
	EL836NI Essentials Lateral 2 High 28H 36W I Pull		2
	PF197-233I Essentials Support Ped BBF 28H 22-7/8D I Pull		2
	CEP2429F Freestanding End-Panel Support 24D x 29 1/2 H		2
	CSL2429F Freestanding Support Legs 24D x 29 1/2 H		2
	Pair of End Panel Gussets		6
	801550 Permanent-Wall Hanger Kit (One pari, 65H each)		2
	830299 Support Column for Peninsula wksf 29-1/2H 3' Dia.		2
	833624A T-Mold Edge Corner Worksurface 36W x 24D		2
	833672A T-Mold Edge Peninsula Worksurface 36W x 72L		2
	832436A T-Mold Edge Worksurface 24D 36W		2
	832472A T-Mold Edge Worksurface 24D 72W		6
	861836 Tackboard 36W 18H		4
	870924 Tasklight for 24W		4
	T-KLOP Tolleson Side Chair Keystone Arms		2
	TR-HOK Trooper Task Chair High-Back w/Fixed Arms		

DESCRIPTION	MODEL INFORMATION	VENDOR	QTY
<b>OCFA ENGINEER'S OFFICE (OCFA Purchase and Installation)</b>	<b>3 Person Engineer's Office</b>	<b>Interservice or Alternate Approved by Owner</b>	
	T624CB Cantilever Bracket 24D & 30D		3
	CE30FNN ESS OH STG CAB 30W/ Flat PNTD DR/Non-Assit		1
	CE36FNN ESS OH STG CAB 36W/ Flat PNTD DR/Non-Assit		1
	CE42Fnn ESS OH STG CAB 42W/ Flat PNTD DR/Non-Assit		1
	Essentials Support PED 28H 22-7/ 8D I Pull		3
	PF197-233I Essentials Support Ped		3
	BFF 28H 22-7/8D I Pull		
	PF198-232I Essentials Support Ped		3
	FF 28H 22-7/8D I Pull		
	CEP2429F Freestanding End-Panel Support 24D x 29 1/2H		2
	CSL24D x 29 1/2H Freestanding Support Legs 24D x 29 1/2H		4
	CDG Pair of End Panel Gussets		3
	801550 Permanent-wall Hanger Kit (One pair, 65H each)		6
	860130 Storage Cabinet with Door 30W 14-1/4D 16H		1
	860136 Storage Cabinet with Door 36W 14-1/4D 16H		4
	860142 Storage Cabinet with Door 42W 14-1/4D 16H		1
	833624A T-Mold Edge Corner worksurface 36Wx24D		3
	832442A T-Mold Edge worksurface 24D 42W		1
	832454A T-Mold Edge worksurface 24D 54W		1
	832460A T-Mold Edge worksurface		1

DESCRIPTION	MODEL INFORMATION	VENDOR	QTY
	24D 60W		
	832466A T-Mold Edge worksurface		2
	24D 66W		
	861830 Tackboard 30w 18H		1
	861836 Tackboard 36W 18H		4
	861842 Tackboard 42W 18H		1
	870924 Tasklight for 24w		3
	TR-MOK Trooper Task Chair Mid-back		3
	w/ fixed arms		

DESCRIPTION	MODEL INFORMATION	VENDOR	QTY
<b>OCFA DINING ROOM (OCFA Purchase and Installation)</b>	<b>10 Person Dining Rm.</b>	<b>Interservice or Alternate Approved by Owner</b>	
	T-KLOP TOLLE SIDE/KEYSTONE		12
	w/ arms and casters		
	LC48120F 120"L x 48" Rectangular		1
	Shaped Laminate Top		
	BLS02 Slab Base for 120" Laminate		1
	Table Top		1
<b>OCFA DAY ROOM (OCFA Purchase and Installation)</b>	<b>8 Person Dayroom</b>	<b>LAZYBOY</b>	
Lounge Chairs	Lazyboy Chaise Reclina-R		10
<b>OCFA DORM (OCFA Purchase and Installation)</b>	<b>8 Single Person Dorm Rooms</b>	<b>Interservice or Alternate Approved by Owner</b>	
Dorm Chairs	TOLLE SIDE/KEYSTONE/ARMLESS		10
<b>OCFA TRAINING ROOM (General Contractor Purchase and Installation)</b>		<b>Interservice or Alternate Approved by Owner</b>	
Desk Chairs			
<b>OCFA INSTRUMENT ROOM (General Contractor Purchase and Installation)</b>		<b>Interservice or Alternate Approved by Owner</b>	
Desks			
Desk Chairs			



Orange County Fire Authority  
**AGENDA STAFF REPORT**

Board of Directors Meeting  
June 23, 2022

Agenda Item No. 2F  
Consent Calendar

**Award of Public Works Contract for  
Uninterruptible Power Supply System Upgrade - RFOTC**

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**Contact(s) for Further Information**

Jim Ruane, Assistant Chief  
Logistics Department

[jimruane@ocfa.org](mailto:jimruane@ocfa.org)

714.573.6028

Joel Brodowski, Information Technology  
Division Manager  
Logistics Department

[joelbrodowski@ocfa.org](mailto:joelbrodowski@ocfa.org)

714.573.6421

**Summary**

This agenda item seeks approval of the plans and specifications for the installation and replacement of the existing Uninterruptible Power Supply System at the RFOTC and award of a public works contract to Ferreira Coastal Construction Company, the lowest responsive and responsible bidder responding to bid RO2512B.

**Prior Board/Committee Action**

None.

**RECOMMENDED ACTION(S)**

1. Approve the plans and specifications for the installation and replacement of the existing Uninterruptible Power Supply System at the RFOTC.
2. Accept Ferreira Coastal Construction Company bid dated April 19, 2022.
3. Approve and award the public works contract to Ferreira Coastal Construction Company in the amount of \$602,311.

**Impact to Cities/County**

Not Applicable.

**Fiscal Impact**

Funding for this contract is included in the existing FY2021/22 Logistics Department Capital Improvement Program budget in Fund 12110, IT Communications and IT Infrastructure, project RFOTC Uninterruptible Power System (UPS) Replacement (P409).

Increased Cost Funded by Structural Fire Fund: \$0

Increased Cost Funded by Cash Contract Cities: \$0

**Background**

The current RFOTC data center Uninterruptible Power System (UPS) was installed during the construction of the RFOTC facilities in 2004 and is at the end of its service life. The UPS system utilizes batteries to supply power when utility company power is interrupted, and continuously protects critical computer equipment by conditioning incoming utility company power. It also integrates with the RFOTC emergency power generator to ensure a smooth, off-grid and constant

power source for the Data Center and the 9-1-1 Emergency Command Center (ECC). When a power outage occurs, the UPS will power the equipment until the emergency generator starts up and is online. This project will install a Dual-UPS design, which is an upgrade to the current Single-UPS system, in order that it will remain effective even if one UPS unit fails. The design also makes maintenance safer by transferring power load to one UPS unit while the other is serviced.

#### ***Request for Statement of Qualifications (RFSQ) Process***

On November 18, 2021, staff issued IFB RO2512A to solicit statements of qualifications from vendors interested in the project to upgrade the existing Uninterruptible Power Supply System at the RFOTC. A mandatory job-walk was held on December 8, 2021, with qualifications due on December 22, 2021. Five statements of qualifications were received and reviewed by staff for responsiveness and qualification. Three vendors were deemed responsive and qualified. See Attachment One for a detailed report of the responsive bidders' qualifications.

#### ***Invitation for Bids (IFB) Process***

On March 21, 2022, staff issued IFB RO2512B to solicit competitive bids from pre-qualified vendors for the installation and upgrade of the existing Uninterruptible Power Supply System at the RFOTC. A mandatory job-walk was held on March 31, 2022, with bids due on April 20, 2022. Two construction bids were received and reviewed by staff for responsiveness. Both bidders were deemed responsive.

<b>Bidder</b>	<b>Lump Sum Pricing</b>
Ferreira Coastal Construction Company	\$602,311
AJ Kirkwood & Associates	\$671,927

Additionally, staff reviewed the pricing submitted and confirmed the reasonableness of the apparent lowest bidder's pricing based on the engineer's estimate, individual cost categories, and comparison to other bidders' pricing. See Attachment Two for the Bid Tabulation with cost category comparison.

Subsequent to this review, a discussion was conducted between Ferreira Coastal Construction Company, the project engineer, and the OCFA project team to confirm specifications, scope of work, and construction schedule of the project as provided in the bid submittal. As a result of the pre-qualification process, price analysis, and confirmation of the specifications, scope of work, and project schedule, Ferreira Coastal Construction Company is deemed the lowest responsive and responsible bidder.

#### ***Recommendation***

Based on the bid results, staff recommends contract award to Ferreira Coastal Construction Company as the lowest responsive responsible bidder based on the base bid in the amount of \$602,311.

#### ***Attachment(s)***

1. Executive Summary
2. Bid Tabulation
3. Proposed Public Works Contract (***Contract posted online and hard copy available in the Clerk's Office upon request***)



# **Executive Summary: Formal Public Works Bid** **Bid #RO2512B : UPS Systems Upgrade – RFOTC**

Section 1. Project Information			
IFB Issue Date	3/21/2022	IFB Due Date	4/20/2022
Vendors Notified	733 from original RFSQ, 3 from pre-qualified vendors	Bids Received	2
Job Walk	3/31/2022	Job Walk Attendees	2
Addenda Issued	1	Engineer's Estimate	\$750,000
Project Description:	Uninterruptible Power Supply System Upgrade at RFOTC		
Solicitation Method:	Due to the public works nature of this project, the estimated value exceeding \$200,000, this project was solicited through the Formal Invitation for Public Works process utilizing the two-step pre-qualification process.		
Section 2. Pre-Qualification of Responsive Bidders			
Contractor			Pre-Qualification Determination
Ferreira Coastal Construction Co.			<input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Not Qualified
<b>Contractor Reputation:</b> <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
Notes:	No findings.		
<b>Contractor Capability to Perform Work:</b> <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
Prior & Current Contracts:	<u>Prior:</u> <ul style="list-style-type: none"> <li>- City of Moreno Valley ITS Deployment</li> <li>- City of Inglewood SOFI Stadium Improvements</li> <li>- CALTRANS SR210 Rehabilitation (Lighting, etc...)</li> <li>- Trabuco Canyon Water District – Bell Canyon lift station rehab – generators, ATS, other electrical</li> <li>- Inland Empire Utility Agency – Spill way dam and control building installation</li> <li>- Moulton Niguel Waer District – Relocate three pressure reducing stations, PRS vault with electrical</li> </ul>		
	<u>Current:</u> <ul style="list-style-type: none"> <li>- Over 100 projects listed</li> </ul>		
Disposition of References:			<input checked="" type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable
References Provided:	City of Moreno Valley City of Inglewood CALTRANS Trabuco Canyon Water District Inland Empire Utility Agency Moulton Niguel Water District	No. References that Responded:	2
Notes:	References provided positive feedback regarding the expertise and quality of work performed by the contractor and team. Project was completed on-time, within budget, with the vendor easily contacted for communication. Contractor would be recommended for future projects.		

<b>AJ Kirkwood &amp; Associates</b>			<input checked="" type="checkbox"/> <b>Qualified</b> <input type="checkbox"/> <b>Not Qualified</b>												
<b>Contractor Reputation:</b> <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory												
<b>Notes:</b>	No findings.														
<b>Contractor Capability to Perform Work:</b> <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory												
<b>Prior &amp; Current Contracts:</b>	<u>Prior:</u> <ul style="list-style-type: none"> <li>- City of Beverly Hills – Parking structure and fire alarm installation</li> <li>- City of Beverly Hills – Parking structure and CCTV installation</li> <li>- Cal Poly Pomona – Fire Alarm Replacement – 40+ buildings</li> </ul>														
	<u>Current:</u> <ul style="list-style-type: none"> <li>- Over 100 projects listed</li> </ul>														
<b>Disposition of References:</b>			<input type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable												
<b>References Provided:</b>	Cal State Los Angeles Cal State San Bernardino Performance Arts Center	<b>No. References that Responded:</b>	0												
<b>Notes:</b>	No references responded to the secondary qualification vetting during the Phase Two solicitation.														
<b>Section 3. Bid Pricing</b> <i>See attached Bid Tabulation for Detailed Cost Comparison</i>															
<b>Lowest Responsive, Responsible Bidder:</b>	Ferreira Coastal Construction														
<b>Comparison to Engineer's Estimate:</b>	\$147,689 less														
<b>Pricing Determination:</b>	<input checked="" type="checkbox"/> Reasonable <input type="checkbox"/> Not Reasonable														
<b>Section 4. Recommendation for Award</b>															
<b>Award Documentation:</b>															
<b>Payment Bond:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Performance Bond:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												
<b>Award Certifications:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Insurance Certificates:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												
<b>Discussion:</b>															
<p>Additional research was completed by OCFA staff and to confirm responsiveness and responsibility of the bid and qualifications of the apparent low-bidder, Ferreira Coastal Construction. A discussion was conducted with the apparent low bidder, engineer of record and OCFA staff for the project after bid opening to confirm specifications and the scope of work of the project as provided in the bid submittal.</p> <p>OCFA Staff also verified the current California State License Board (CSLB) license statuses and registration with the Department of Industrial Relations (DIR) for contractor and sub-contractors as follows:</p> <table border="1"> <thead> <tr> <th>Contractor</th> <th>CSLB License Number, Classification, and Expiration</th> <th>DIR Registration Number</th> </tr> </thead> <tbody> <tr> <td>Ferreira Coastal Construction</td> <td>985180; A, C10, C13; Exp: 7/31/23</td> <td>1000001634</td> </tr> <tr> <td>Halco Service Corp.</td> <td>342752; C10; Exp: 8/31/22</td> <td>1000025646</td> </tr> <tr> <td>Vistam Inc.</td> <td>691623; C10; Exp: 7/31/22</td> <td>1000028171</td> </tr> </tbody> </table> <p>As a result of the additional research, meeting, and verified qualifications of the apparent low bidder, its bid was accepted.</p>				Contractor	CSLB License Number, Classification, and Expiration	DIR Registration Number	Ferreira Coastal Construction	985180; A, C10, C13; Exp: 7/31/23	1000001634	Halco Service Corp.	342752; C10; Exp: 8/31/22	1000025646	Vistam Inc.	691623; C10; Exp: 7/31/22	1000028171
Contractor	CSLB License Number, Classification, and Expiration	DIR Registration Number													
Ferreira Coastal Construction	985180; A, C10, C13; Exp: 7/31/23	1000001634													
Halco Service Corp.	342752; C10; Exp: 8/31/22	1000025646													
Vistam Inc.	691623; C10; Exp: 7/31/22	1000028171													

RO2512B - Uninterruptible Power Supply System Upgrade - RFOTC	Ferreira Coastal Construction Co.			AJ Kirkwood & Associates, Inc.		
	Total Bid	Difference from Lowest Bid	Difference from Engineer's	Total Bid	Difference from Lowest Bid	Difference from Engineer's
	\$602,311.00	\$0.00	-\$147,689.00	\$671,927.00	\$69,616.00	-\$78,073.00
Line Item Subtotal	Line Item Subtotal			Line Item Subtotal	Difference from Lowest Bid	
Category I: Labor Classifications (Prevailing Wage)	\$60,463.00			\$138,112.00	\$77,649.00	
Category II: Permanent & Non-Permanent Materials/Supplies	\$388,623.00			\$31,642.00	-\$356,981.00	
Category III: Equipment	\$28,808.00			\$379,026.00	\$350,218.00	
Category IV: Overhead & Indirect Costs	\$97,925.00			\$56,534.00	-\$41,391.00	
Category V: Profit (% As written)	4.00%			10.00%	6.00%	
Category VI: Permits/Fees	\$2,500.00			\$6,589.00	\$4,089.00	
Notes:	Price is 17.3% less than engineer's estimate. Bid price deemed reasonable.			Price is 10.5% less than engineer's estimate. Contractor has hardware listed in Category III rather than Category II. Bid price deemed reasonable.		

**4F: CONTRACT AGREEMENT**

THIS CONTRACT AGREEMENT (hereinafter "Agreement" or "Contract" or "Contract Agreement") is made and entered into for the above identified Project this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, BY AND BETWEEN THE **ORANGE COUNTY FIRE AUTHORITY** (hereinafter "OCFA"), and Ferreira Coastal Construction, as CONTRACTOR.

WITNESSETH that OCFA and CONTRACTOR have mutually agreed as follows:

[SECTIONS 1 – 40 are set forth in the Solicitation Information and Instructions to Bidders above.]

**41 – PROJECT MANUAL**

This Contract consists of the Project Manual. The Project Manual includes the following component parts thereof, each of which is a part of this Contract:

- (1) RO2512B - Notice Inviting Bids
- (2) RO2512B - Instructions to Bidders
- (3) RO2512B - Bid Documents
- (4) RO2512B - Contract Documents
- (5) RO2512B - Technical Specifications
- (6) Any and all addenda and other supplemental notices and agreements issued by OCFA clarifying, amending, or extending the work contemplated as may be required to ensure its completion in an acceptable manner

All of the above component documents of the Project Manual are complementary and Work required by one of the above documents shall be done as if required by all. In the event of conflict among the component documents of the Project Manual, the conflict shall be resolved as set forth in Section 52 of the General Conditions.

**42 - CONTRACT PRICE**

OCFA shall pay to Contractor as full consideration for the faithful performance of the Contract, the sum of SIX HUNDRED TWO THOUSAND, THREE HUNDRED ELEVEN DOLLARS (\$602,311). This sum is the total amount stipulated in the Bid. Payment shall be made as set forth in the General Conditions.

**43 – CONTRACTOR'S COMMITMENT TO FURNISH MATERIALS AND WORK**

For and in consideration of the payments and agreements to be made and performed by OCFA, CONTRACTOR agrees to furnish all materials and perform all work required for the above identified Project, and to fulfill all other obligations as set forth in the aforesaid Contract Documents.

**44 – CONTRACTOR'S COMMITMENT TO PRICES**

CONTRACTOR agrees to receive and accept the prices set forth in the Proposal as full compensation for furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid Contract Documents; and also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work.

44.1 - NO INCREASE IN BID COST DUE TO SUBSTITUTION OF SUBCONTRACTOR. In the event that a subcontractor is substituted in any manner for any reason, any increased cost related to such substitution shall be the sole responsibility of the Contractor. Such substitution shall not cause or result, directly or indirectly, in any increase in the bid price. This subsection shall not be construed to be prior consent to substitution of subcontractors, nor to authorize any substitution that is prohibited by the Subletting and Subcontracting Fair Practices Act.

#### 45 – PAYMENT TO CONTRACTOR

OCFA hereby promises and agrees to employ, and does hereby employ, CONTRACTOR to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in the Contract Documents.

#### 46 - WORKER'S COMPENSATION

CONTRACTOR acknowledges the provisions of the Labor Code requiring every employer to be insured against liability for workers' compensation, or to undertake self-insurance in accordance with the provisions of that Code, and certifies compliance with such provisions.

#### 47 – PRINCIPAL INTERESTS

CONTRACTOR affirms that the signatures, titles, and seals set forth hereinafter in execution of this Agreement represent all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest herein.

#### 48 – COMPLIANCE WITH FEDERAL IMMIGRATION AND NATIONALITY ACT

CONTRACTOR hereby represents and warrants that it will comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C. Section 1101, *et seq.*, as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should CONTRACTOR so employ such unauthorized aliens for the performance of any work and/or services under this Agreement, and should any liability or sanctions be imposed against OCFA for such use of unauthorized aliens, CONTRACTOR hereby agrees to defend and indemnify OCFA against any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, or penalties which arise out of or are related to such employment, together with any and all costs, including attorneys' fees, incurred by OCFA.

#### 49 – CERTIFICATION RE DEBARMENT

CONTRACTOR confirms that neither CONTRACTOR nor its principals are suspended, debarred, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts from United States (U.S.) federal government procurement or nonprocurement programs, or are listed in the List of Parties Excluded from Federal Procurement or Nonprocurement Programs (<http://www.sam.gov/>) issued by the U.S. General Services Administration. "Principals" means officers, directors, owners, partners, and persons having primary management or supervisory responsibilities within a business entity (e.g. general manager, plant manager, head of a subsidiary, division or business segment, and similar positions). CONTRACTOR will provide immediate written notification to OCFA if, at any time prior to award, CONTRACTOR learns that this certification was erroneous when submitted or has become erroneous by reason of changed circumstances. This certification is a material representation of fact upon which reliance will be placed when OCFA executes this Agreement. If it is later determined that CONTRACTOR knowingly rendered an erroneous certification, in addition to the other remedies available to OCFA, OCFA may terminate this Agreement for default by CONTRACTOR.

**50 - INDEMNIFICATION**

To the fullest extent permitted by law, CONTRACTOR (at CONTRACTOR's sole cost and expense) shall defend (with legal counsel acceptable to OCFA in OCFA's sole discretion), indemnify, protect, and hold harmless the INDEMNIFIED PARTIES and each of them against all CLAIMS which arise out of, pertain to, or are related to CONTRACTOR's performance under, or failure to perform under, the Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit CONTRACTOR's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, indemnify, protect, and hold harmless the INDEMNIFIED PARTIES shall not apply to the extent such CLAIMS arise from the sole negligence or willful misconduct of the OCFA.

As used herein, "INDEMNIFIED PARTIES" refers to OCFA and its appointed officials, officers, employees, agents, representatives, attorneys and volunteers.

As used in this Section 50, "CLAIMS" refers to any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, penalties, and expenses including legal costs, expert fees and attorney fees, including but not limited to CLAIMS arising from injuries to or death of persons (CONTRACTOR's employees included), or for damage to property, including property owned by OCFA.

**51 – COMPLIANCE WITH WORK RULES**

CONTRACTOR shall be familiar with, observe, and comply at all times during the term of this Agreement with any work rules for contractors as may be established and promulgated by the OCFA Fire Chief, which work rules shall be additional terms and conditions for providing the work and services to the OCFA pursuant to this Agreement, as may be updated and/or amended from time to time at the sole discretion of the Fire Chief.

**[SIGNATURE PAGE FOLLOWS]**

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed the day and year first written.

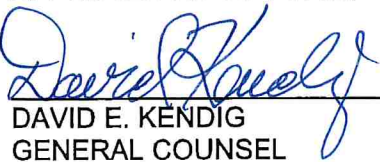
ORANGE COUNTY FIRE AUTHORITY:

\_\_\_\_\_  
Michele Steggell, Chair  
OCFA Board of Directors

ATTEST:

\_\_\_\_\_  
MARIA D. HUIZAR,  
CLERK OF THE AUTHORITY

APPROVED AS TO FORM:

  
\_\_\_\_\_  
DAVID E. KENDIG  
GENERAL COUNSEL

CONTRACTOR:

Ferreira Construction Co. Inc. dba Ferreira Coastal Construction  
\_\_\_\_\_  
(CORPORATION (NAME - TYPE))

BY: Brandon Pensick

(PRINT)

  
\_\_\_\_\_  
(SIGNATURE)

Vice President

\_\_\_\_\_  
(TITLE)

BY: \_\_\_\_\_

(PRINT)

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
(TITLE)

NOTE:

SIGNATURES OF CORPORATE OFFICIALS MUST BE NOTARIZED, ATTACH JURAT.

See attached Corporate Resolution

# **FERREIRA**

## **CORPORATE RESOLUTION**

### **UNANIMOUS WRITTEN CONSENT OF THE DIRECTORS OF FERREIRA CONSTRUCTION CO., INC. IN LIEU OF A MEETING**

The undersigned, being the sole Director of FERREIRA CONSTRUCTION CO., INC. a New Jersey corporation (the "Corporation"), pursuant to the provisions of Section 14A:6-16, Corporations, General of the New Jersey Statutes, hereby consents in writing to the adoption of, and does hereby adopt, the following resolutions, to be effective as though adopted by the directors of the Corporation at a meeting duly called and held:

LET IT BE RESOLVED, that the following persons are officers of the Corporation, the same to serve at the pleasure of the Board:

President: Nelson Ferreira  
Sr. Vice President/ CFO: Jerry Killian  
Sr. Vice President: Dictinio Garcia  
Sr. Vice President: Nancy Vliet  
Sr. Vice President of Field Operations: Brian Delpome  
Vice President of NY Operations: Tom Groark  
Vice President of Stuart, Florida Operations: John Ciabattari  
Vice President of Medley, Florida Operations: Danny Garcia  
Vice President of Ferreira Coastal Operations: Brandon Pensick  
Vice President of Electrical, Southern Division: Robert Higginbotham  
Chief Operating Officer of Ferreira Northeast Coastal Operations: Al Marsocci  
Secretary/Treasurer: Luis Pacheco

LET IT BE FURTHER RESOLVED, the officers of Ferreira Construction Co., Inc. have authority to sign all contracts and bind the corporation.

IN WITNESS WHEREOF, I have set my hand on this 7<sup>th</sup> day of January, 2021.

FERREIRA CONSTRUCTION CO., INC.

Nelson Ferreira, Director  
President

#### **SECTION 4: CONTRACT DOCUMENTS**

##### **CONTRACT SUBMITTALS (SUCCESSFUL BIDDER ONLY)**

Within fourteen calendar days (14) of the issuance of the Notice to Proceed, the successful Bidder must submit the documents below. Failure to do so may result in the contract being deemed abandoned.

☒ **Transmittal Page Two – Bid Award Documents** (Exhibit 4A)

☐ **Original Performance Bond** (Exhibit 4B)

☒ **Original Payment (Labor and Materials) Bond** (Exhibit 4C)

☒ **Award Certifications** (Exhibit 4D)

☒ **IRS Form W9** (Exhibit 4E)

☒ **All required Insurance Certificates and Endorsements** *See the last 10 pages Attached*

☒ **Signed Contract Agreement** (Exhibit 4F)

☒ **General Conditions** (Exhibit 4G)

*✓ Updated Schedule*

**OCCA - UPS Upgrade - Rough Preliminary Schedule**

Task	Duration	Start	Completion
Submit proposal	1 day	4/20/2022	4/20/2022
Issue Contracts & NTP	6 weeks	5/19/2022	6/28/2022
Release of PO's to obtain submittals	1 week	6/28/2022	7/5/2022
Preparation of submittals	2 weeks	7/11/2022	7/25/2022
Review of submittals	2 week	7/25/2022	8/8/2022
Release materials for manufacturing	1 week	8/8/2022	8/15/2022
Manufacturing of UPS	24 weeks	8/15/2022	1/23/2023
Shipping of UPS	1 week	1/23/2023	1/30/2023
Manufacturing of switchgear/MTS	22 weeks	8/15/2022	1/16/2023
Shipping of switchgear/MTS	1 week	1/16/2023	1/23/2023
Mobilization to site	1 week	1/9/2023	1/16/2023
Demo	1 week	1/16/2023	1/23/2023
Preinstallation of conduit and cabling	2 weeks	1/23/2023	2/6/2023
City Inspection - Rough	1 week	2/6/2023	2/13/2023
Install Switchgear	2 weeks	2/13/2023	2/27/2023
Install UPS	2 weeks	2/13/2023	2/27/2023
City Inspection - Gear & UPS	1 week	2/27/2023	3/6/2023
Provide temporary generator for start up/testing of 2 UPS systems	1 week	3/13/2023	3/20/2023
Final Testing & City Inspection	1 week	3/20/2023	3/27/2023
Close out documents	1 week	3/27/2023	4/3/2023
<b>Ferreira Coastal Construction Proposed schedule completion</b>			
<b>40 Weeks</b>			
<b>RFP Stated - 270 days upon contract execution - Need to add 2 weeks to contract</b>	<b>40 Total Weeks</b>		<b>4/3/2023</b>

Above schedule is contingent upon current manufacturer projected lead-times + Allowances for Holidays  
Timeline is contingent upon expedited award of contract and submittal approval.

Above is a worse case scenario with current projected lead-times and is subject to change due to manufacturer issues.  
Our expectation is to shrink the schedule to 34 weeks.

**4A: TRANSMITTAL PAGE TWO – BID AWARD DOCUMENTS****TO:** Orange County Fire Authority**FROM:** Ferreira Construction Co. Inc. dba Ferreira Coastal Construction

(Legal Name of Contractor)

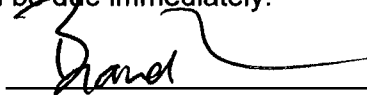
**PROJECT:** UNINTERRUPTIBLE POWER SUPPLY SYSTEM UPGRADE - RFOTC**AWARDED CONTRACTOR'S CHECKLIST:**

The awarded Contractor is required to provide the following documents:

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Transmittal Page (Exhibit 4A) | <input type="checkbox"/> Award Certifications (Exhibit 4D) | <input type="checkbox"/> Signed Agreement (Exhibit 4F) |
| <input type="checkbox"/> Performance Bond (Exhibit 4B) | <input type="checkbox"/> W9 (Exhibit 4E)                   |  |
| <input type="checkbox"/> Payment Bond (Exhibit 4C)     | <input type="checkbox"/> Insurance Certificates            |  |

**TO THE OCFA:**

Signature below acknowledges that, should the Contractor fail to provide the above documents in a form satisfactory to OCFA within fourteen days of the issuance of the Notice of Award, OCFA may, at its option, consider the Contractor to have abandoned the agreement, upon which the full payment of the sum stated in the Bidder's Bond shall be due immediately.

**SIGNATURE OF CONTRACTOR:****PRINTED NAME:**

Brandon Pensick

**TITLE:**

Vice President

**4B: FAITHFUL PERFORMANCE BOND**

(100% of Agreement Price)

**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and Ferreira Construction Co., Inc. dba Ferreira Coastal Construction Co. ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**IFB RO2512B - UNINTERRUPTIBLE POWER SUPPLY SYSTEM UPGRADE - RFOTC**

("Contract") which Contract dated \_\_\_\_\_, and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, the Principal and Berkshire Hathaway Specialty Insurance Company ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of SIX HUNDRED TWO THOUSAND, THREE HUNDRED ELEVEN DOLLARS (\$602,311), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the OCFA all damages the OCFA incurs as a result of the Principal's failure to perform all the work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the OCFA, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the OCFA from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the OCFA's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

**[Signature Page Follows]**

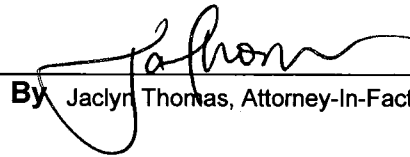
IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 1st day of June, 2022 in accordance with Article 5, commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

**CONTRACTOR:**

(Affix Corporate Seal)

Ferreira Construction Co., Inc. dba Ferreira Coastal Construction Co.**Principal****By**Brandon Pensick - Vice President  
**Print Name and Title of Signatory****SURETY:**

(Affix Corporate Seal)

Berkshire Hathaway Specialty Insurance Company**Surety****By** Jaclyn Thomas, Attorney-In-FactBerkshire Hathaway Specialty Insurance Company**Name of California Agent of Surety**707 Wilshire Boulevard, 48th Floor, Los Angeles, CA 90017**Address of California Agent of Surety**(516) 387-1170**Telephone Number of California Agent of Surety**

**Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.**

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT****CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

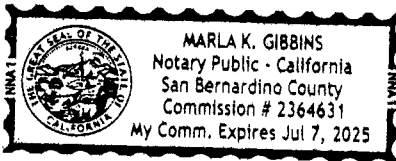
State of California )

County of San Bernardino )On June 03, 2022 before me, Marla K. Gibbins, Notary Public,  
Date Here Insert Name and Title of the Officerpersonally appeared Brandon Pensick  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_☐ Partner — ☐ Limited ☐ General☐ Individual ☐ Attorney in Fact☐ Trustee ☐ Guardian or Conservator☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_☐ Partner — ☐ Limited ☐ General☐ Individual ☐ Attorney in Fact☐ Trustee ☐ Guardian or Conservator☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

**ACKNOWLEDGEMENT OF SURETY COMPANY**

STATE OF

COUNTY OF

ON THE 1<sup>st</sup> DAY OF June, 2022 BEFORE ME PERSONALLY APPEARED Jaclyn Thomas TO ME KNOWN, WHO BEING BY ME DULY SWORN, DID DEPOSE AND SAY; THAT (S)HE IS THE ATTORNEY-IN-FACT OF Berkshire Hathaway Specialty Insurance Company, THE CORPORATION THAT EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL, AT MY OFFICE IN THE ABOVE COUNTY, THE DAY AND YEAR WRITTEN ABOVE.



Notary Public

**Sandy S. James-Browne**  
Notary Public  
State of New Jersey  
My commission expires September 19, 2023



## Power Of Attorney

### BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY

Know all men by these presents, that **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at One Lincoln Street, 23rd Floor, Boston, Massachusetts 02111, **NATIONAL INDEMNITY COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131 and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: **Jaclyn Thomas, Kevin T. Walsh, Jr., Thomas MacDonald, Krystal L. Stravato, 100 South Jefferson Road, Suite 101, of the city of Whippany, State of New Jersey**, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. **This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.**

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of December 20, 2018. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively. **The following signature by an authorized officer of the Company may be a facsimile, which shall be deemed the equivalent of and constitute the written signature of such officer of the Company for all purposes regarding this Power of Attorney, including satisfaction of any signature requirements on any and all undertakings, bonds, or other such writings obligatory in the nature thereof, to which this Power of Attorney applies.**

**BERKSHIRE HATHAWAY SPECIALTY  
INSURANCE COMPANY,**

By:

David Fields, Executive Vice President



**NATIONAL INDEMNITY COMPANY,  
NATIONAL LIABILITY & FIRE INSURANCE COMPANY,**

By:

David Fields, Vice President

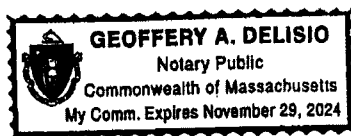


#### NOTARY

State of Massachusetts, County of Suffolk, ss:

On this 20th day of December, 2018, before me appeared David Fields, Executive Vice President of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY** and Vice President of **NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



Notary Public

I, Ralph Tortorella, the undersigned, Officer of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, see hereunto affixed the seals of said Companies this June 1, 2022.



Officer

To verify the authenticity of this Power of Attorney please contact us at: BHSI Surety Department, Berkshire Hathaway Specialty Insurance Company, One Lincoln Street, 23rd Floor Boston, MA 02111 | (770) 625-2516 or by email at [Jennifer.Porter@bhspecialty.com](mailto:Jennifer.Porter@bhspecialty.com). **THIS POWER OF ATTORNEY IS VOID IF ALTERED**

To notify us of a claim please contact us on our 24-hour toll free number at (855) 453-9675, via email at [claimsnotice@bhspecialty.com](mailto:claimsnotice@bhspecialty.com), via fax to (617) 507-8259, or via mail.

**BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)**

ARTICLE V.

CORPORATE ACTIONS

....

EXECUTION OF DOCUMENTS:

....

Section 6.(b) The President, any Vice President or the Secretary, shall have the power and authority:

- (1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company bonds and other undertakings, and
- (2) To remove at any time any such Attorney-in-fact and revoke the authority given him.

**NATIONAL INDEMNITY COMPANY (BY-LAWS)**

Section 4. Officers, Agents, and Employees:

A. The officers shall be a President, one or more Vice Presidents, a Secretary, one or more Assistant Secretaries, a Treasurer, and one or more Assistant Treasurers none of whom shall be required to be shareholders or Directors and each of whom shall be elected annually by the Board of Directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the Board of Directors, and shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the Board of Directors; and the Board of Directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the corporation.

**NATIONAL INDEMNITY COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)**

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

**NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)**

ARTICLE IV

Officers

Section 1. Officers, Agents and Employees:

A. The officers shall be a president, one or more vice presidents, one or more assistant vice presidents, a secretary, one or more assistant secretaries, a treasurer, and one or more assistant treasurers, none of whom shall be required to be shareholders or directors, and each of whom shall be elected annually by the board of directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the board of directors. The president and secretary shall be different individuals. Election or appointment of an officer or agent shall not create contract rights. The officers of the Corporation shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the board of directors; and the board of directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the Corporation.

**NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)**

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

# BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY

1314 Douglas Street, Suite 1400, Omaha, Nebraska 68102-1944

## ADMITTED ASSETS\*

	<u>12/31/2021</u>	<u>12/31/2020</u>	<u>12/31/2019</u>
Total invested assets	\$ 6,504,184,299	\$ 5,475,240,588	\$ 5,172,183,338
Premium & agent balances (n	552,510,359	603,615,506	368,086,012
All other assets	142,765,038	157,897,676	127,524,677
<b>Admitted Assets</b>	<u><u>\$ 7,199,459,696</u></u>	<u><u>\$ 6,236,753,770</u></u>	<u><u>\$ 5,667,794,027</u></u>

## LIABILITIES & SURPLUS\*

	<u>12/31/2021</u>	<u>12/31/2020</u>	<u>12/31/2019</u>
Loss & loss exp. unpaid	\$ 1,142,116,028	\$ 921,923,948	\$ 634,745,558
Unearned premiums	484,660,143	372,836,160	314,117,549
All other liabilities	1,163,007,684	1,054,922,210	744,738,458
<b>Total Liabilities</b>	<u>2,789,783,855</u>	<u>2,349,682,318</u>	<u>1,693,601,565</u>
<b>Total Policyholders' Surplus</b>	<u>4,409,675,842</u>	<u>3,887,071,452</u>	<u>3,974,192,463</u>
<b>Total Liabilities &amp; Surplus</b>	<u><u>\$ 7,199,459,697</u></u>	<u><u>\$ 6,236,753,770</u></u>	<u><u>\$ 5,667,794,028</u></u>

\* Assets, liabilities and surplus are presented on a Statutory Accounting Basis as promulgated by the NAIC and/or the laws of the company's domiciliary state.

**4C: PAYMENT BOND**  
**Contractor's Labor & Material Bond**  
(100% of Agreement Price)  
**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and Ferreira Construction Co., Inc. dba Ferreira Coastal Construction Co., ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**IFB RO2512B - UNINTERRUPTIBLE POWER SUPPLY SYSTEM UPGRADE - RFOTC**

("Contract") which Contract dated \_\_\_\_\_, and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and, Berkshire Hathaway Specialty Insurance Company ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of SIX HUNDRED TWO THOUSAND, THREE HUNDRED ELEVEN DOLLARS (\$602,311), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

**[Signature Page Follows]**

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 1<sup>st</sup> day of June, 2022.

**CONTRACTOR:**

(Affix Corporate Seal)

Ferreira Construction Co., Inc. dba Ferreira Coastal Construction Co.

**Principal**



**By**

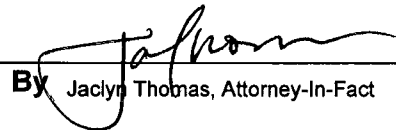
Brandon Persick - Vice President  
**Print Name and Title of Signatory**

**SURETY:**

(Affix Corporate Seal)

Berkshire Hathaway Specialty Insurance Company

**Surety**



**By** Jaclyn Thomas, Attorney-In-Fact

Berkshire Hathaway Specialty Insurance Company

**Name of California Agent of Surety**

707 Wilshire Boulevard, 48th Floor, Los Angeles, CA 90017

**Address of California Agent of Surety**

(516) 387-1170

**Telephone Number of California Agent of Surety**

**Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.**

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT****CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )

County of San Bernardino )On June 03, 2022 before me, Marla K. Gibbins, Notary Public,

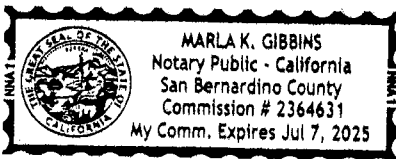
Date

*Here Insert Name and Title of the Officer*personally appeared Brandon Pensick*Name(s) of Signer(s)*

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Marla K. Gibbins  
*Signature of Notary Public**Place Notary Seal Above***OPTIONAL**

*Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_☐ Partner — ☐ Limited ☐ General☐ Individual ☐ Attorney in Fact☐ Trustee ☐ Guardian or Conservator☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

☐ Corporate Officer — Title(s): \_\_\_\_\_☐ Partner — ☐ Limited ☐ General☐ Individual ☐ Attorney in Fact☐ Trustee ☐ Guardian or Conservator☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

**ACKNOWLEDGEMENT OF SURETY COMPANY**

STATE OF

COUNTY OF

ON THE 1<sup>st</sup> DAY OF June, 2022 BEFORE ME PERSONALLY APPEARED Jaclyn Thomas TO ME KNOWN, WHO BEING BY ME DULY SWORN, DID DEPOSE AND SAY; THAT (S)HE IS THE ATTORNEY-IN-FACT OF Berkshire Hathaway Specialty Insurance Company, THE CORPORATION THAT EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL, AT MY OFFICE IN THE ABOVE COUNTY, THE DAY AND YEAR WRITTEN ABOVE.

  
\_\_\_\_\_  
Notary Public

**Sandy S. James-Browne**  
Notary Public  
State of New Jersey  
My commission expires September 18, 2026



**Power Of Attorney**  
**BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**  
**NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY**

Know all men by these presents, that **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at One Lincoln Street, 23rd Floor, Boston, Massachusetts 02111, **NATIONAL INDEMNITY COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131 and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: **Jaclyn Thomas, Kevin T. Walsh, Jr., Thomas MacDonald, Krystal L. Stravato, 100 South Jefferson Road, Suite 101, of the city of Whippany, State of New Jersey**, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. **This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.**

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of December 20, 2018. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively. **The following signature by an authorized officer of the Company may be a facsimile, which shall be deemed the equivalent of and constitute the written signature of such officer of the Company for all purposes regarding this Power of Attorney, including satisfaction of any signature requirements on any and all undertakings, bonds, or other such writings obligatory in the nature thereof, to which this Power of Attorney applies.**

**BERKSHIRE HATHAWAY SPECIALTY  
INSURANCE COMPANY,**

By:

David Fields, Executive Vice President



**NATIONAL INDEMNITY COMPANY,  
NATIONAL LIABILITY & FIRE INSURANCE COMPANY,**

By:

David Fields, Vice President

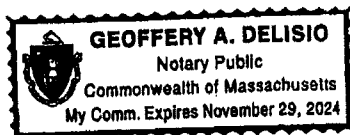


**NOTARY**

State of Massachusetts, County of Suffolk, ss:

On this 20th day of December, 2018, before me appeared David Fields, Executive Vice President of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY** and Vice President of **NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



Notary Public

I, Ralph Tortorella, the undersigned, Officer of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, see hereunto affixed the seals of said Companies this June 1, 2022.



Officer

To verify the authenticity of this Power of Attorney please contact us at: BHSISurety Department, Berkshire Hathaway Specialty Insurance Company, One Lincoln Street, 23rd Floor Boston, MA 02111 | (770) 625-2516 or by email at [Jennifer.Porter@bhspecialty.com](mailto:Jennifer.Porter@bhspecialty.com) THIS POWER OF ATTORNEY IS VOID IF ALTERED  
To notify us of a claim please contact us on our 24-hour toll free number at (855) 453-9675, via email at [claimsnotice@bhspecialty.com](mailto:claimsnotice@bhspecialty.com), via fax to (617) 507-8259, or via mail.

**BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)**

ARTICLE V.

CORPORATE ACTIONS

....

EXECUTION OF DOCUMENTS:

....

Section 6.(b) The President, any Vice President or the Secretary, shall have the power and authority:

- (1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company bonds and other undertakings, and
- (2) To remove at any time any such Attorney-in-fact and revoke the authority given him.

**NATIONAL INDEMNITY COMPANY (BY-LAWS)**

Section 4. Officers, Agents, and Employees:

A. The officers shall be a President, one or more Vice Presidents, a Secretary, one or more Assistant Secretaries, a Treasurer, and one or more Assistant Treasurers none of whom shall be required to be shareholders or Directors and each of whom shall be elected annually by the Board of Directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the Board of Directors, and shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the Board of Directors; and the Board of Directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the corporation.

**NATIONAL INDEMNITY COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)**

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

**NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)**

ARTICLE IV

Officers

Section 1. Officers, Agents and Employees:

A. The officers shall be a president, one or more vice presidents, one or more assistant vice presidents, a secretary, one or more assistant secretaries, a treasurer, and one or more assistant treasurers, none of whom shall be required to be shareholders or directors, and each of whom shall be elected annually by the board of directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the board of directors. The president and secretary shall be different individuals. Election or appointment of an officer or agent shall not create contract rights. The officers of the Corporation shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the board of directors; and the board of directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the Corporation.

**NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)**

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

# BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY

1314 Douglas Street, Suite 1400, Omaha, Nebraska 68102-1944

## ADMITTED ASSETS\*

	<u>12/31/2021</u>	<u>12/31/2020</u>	<u>12/31/2019</u>
Total invested assets	\$ 6,504,184,299	\$ 5,475,240,588	\$ 5,172,183,338
Premium & agent balances (n	552,510,359	603,615,506	368,086,012
All other assets	142,765,038	157,897,676	127,524,677
<b>Admitted Assets</b>	<u><u>\$ 7,199,459,696</u></u>	<u><u>\$ 6,236,753,770</u></u>	<u><u>\$ 5,667,794,027</u></u>

## LIABILITIES & SURPLUS\*

	<u>12/31/2021</u>	<u>12/31/2020</u>	<u>12/31/2019</u>
Loss & loss exp. unpaid	\$ 1,142,116,028	\$ 921,923,948	\$ 634,745,558
Unearned premiums	484,660,143	372,836,160	314,117,549
All other liabilities	1,163,007,684	1,054,922,210	744,738,458
<b>Total Liabilities</b>	<u>2,789,783,855</u>	<u>2,349,682,318</u>	<u>1,693,601,565</u>
<b>Total Policyholders' Surplus</b>	<u>4,409,675,842</u>	<u>3,887,071,452</u>	<u>3,974,192,463</u>
<b>Total Liabilities &amp; Surplus</b>	<u><u>\$ 7,199,459,697</u></u>	<u><u>\$ 6,236,753,770</u></u>	<u><u>\$ 5,667,794,028</u></u>

\* Assets, liabilities and surplus are presented on a Statutory Accounting Basis as promulgated by the NAIC and/or the laws of the company's domiciliary state.

**4D: AWARD CERTIFICATIONS****Prevailing Wage:**

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hour notice, payroll records, and apprentice and trainee employment requirements, for all Services on the above Project, including, without limitation, the State labor compliance monitoring and enforcement by the Compliance Monitoring Unit of the Department of Industrial Relations, if this Project is subject to a labor compliance.

**Workers' Compensation:**

In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract. CA Labor Code section 3700 in relevant part provides that every employer except the State shall secure the payment of compensation in one or more of the following ways: (1) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state; (2) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees. I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract.

**Date:** 06/01/2022

**Legal Name of**

**Contractor:**

Ferreira Construction Co. Inc. dba Ferreira Coastal Construction Co.

**Signature:**



**Printed Name:**

Brandon Pensick

**Title:**

Vice President

# Request for Taxpayer Identification Number and Certification

Give Form to the  
requester. Do not  
send to the IRS.

► Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Print or type. See specific instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>Ferreira Construction Co. Inc.</b>	
	2 Business name/disregarded entity name, if different from above <b>Ferreira Coastal Construction Co.</b>	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ►	
	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3); Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>	
	5 Address (number, street, and apt. or suite no.) See instructions. <b>10370 Commerce Center Drive Suite B200</b>	Requester's name and address (optional)
	6 City, state, and ZIP code <b>Rancho Cucamonga CA 91730</b>	
	7 List account number(s) here (optional)	

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number								
			-				-	
or								
Employer identification number								
2	2	-	3	3	3	4	9	5

## Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ► <i>Mala Gibbs</i>	Date ► <i>01/11/2022</i>
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## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding*, later.

**4G: GENERAL CONDITIONS****ORANGE COUNTY FIRE AUTHORITY GENERAL CONDITIONS****51 Definitions**

As used in these General Conditions and in the Project Manual generally, the following terms have the meaning indicated:

Acts of God: An earthquake in excess of a magnitude of 3.5 on the Richter Scale or a tidal wave.

Addendum: A written or graphic instrument issued by Project Manager on behalf of the OCFA prior to the execution of the Contract which sets forth additions, deletions, or other revisions to the Project Manual or clarifications thereof.

Authority: The Orange County Fire Authority, a California Joint Powers Authority.

Board of Directors: The governing body of the Orange County Fire Authority.

Change Order: A written Modification executed by both parties (except in the event of a unilateral Change Order as herein provided) and consisting of additions, deletions or other changes to the Contract. A Change Order may be accompanied by and/or may identify additional or revised Drawings, sketches or other written instructions which become and form a part of the Project Manual by virtue of the executed Change Order. Except as otherwise provided in Subparagraph 1.1.5., a Change in the Work, or a change in the Contract Time or the Contract Sum shall only be approved by written Change Order.

Construction Contract or Contract: The written "Contract Agreement" covering the performance of the Work and the furnishing of labor, materials, tools, and equipment in the construction of the Work. The term "Construction Contract" also includes the Project Manual.

Contract Directive: A written document issued by the Project Manager and consisting of additions, deletions, clarifications, interpretations, or other written instructions issued by the Project Manager with respect to the performance of the Work or the activities of the Contractor on the Job Site or the property of OCFA. A Contract Directive can be a response to a Request for Information; however, all responses to Requests for Information need not be Contract Directives. A Contract Directive may become the subject of a Change Order only if such Directive involves a substantial change in the Work, or a change in the Contract Time or the Contract Amount, approved as a Change Order by the Project Manager.

Contractor's Construction Schedule: The detailed schedules, based on a critical path method ("CPM"), prepared by the Contractor, presenting an orderly and realistic plan for completion of the work required in the Project Manual. The Contractor's Construction Schedule shall also include the completion dates of the Milestones and a final proposal narrative as described in the Project Manual.

Contractor: The person or entity awarded the Contract to perform the work.

Day: All references to days in the Project Manual refer to calendar day unless otherwise specifically indicated.

Design Professional: Officers, employees, and consultants, the architectural and engineering firm, a party to the design-build entity responsible for the overall design of the Project.

**Excusable Labor Dispute:** Any labor dispute directed against an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, and which prevents Contractor from obtaining labor or materials necessary for the performance of the Work and that actually delays the performance of the Work; provided, however, that suitable substitute labor or materials are not reasonably obtainable.

**Excusable Transportation Delay:** Any labor dispute directed at an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, or other delay not within the reasonable control of the Contractor which prevents the transportation of necessary materials to the Project and actually delays the performance of Work; provided, however, that suitable substitute transportation for such materials is not reasonably available.

**Fire Chief:** The Fire Chief of the OCFA or the Fire Chief's Designee.

**Laws:** Each and every Federal, state, and local law, ordinance, code, rule, and regulation, as well as the lawful order or decree of any public or quasi-public authority and each of their respective inspectors or officials, including but not limited to all applicable building codes, bearing on or otherwise applicable to the Project. The term "Laws" also includes any and all conditions of approval of each and every entitlement or permit issued or approved by the Local Jurisdictions.

**Local Jurisdictions:** Any governmental agency with land use authority over the Project or part of the Project and each regulatory agency or authority with jurisdiction over the project, and their respective inspectors and representatives.

**Modification or Contract Modification:** (1) a written amendment to this Contract signed by both Parties; (2) a Change Order; or (3) a Contract Directive or other written interpretation or order issued as a response to a Request for Information or otherwise issued by the Project Manager pursuant to the terms of the Project Manual. Contractor acknowledges that the execution on its behalf of any such Modification by any one person with apparent authority shall be binding against the Contractor. A Modification may be made only after execution of the Contract. No Contract Directive or response to a Request for Information shall be construed as a Change Order or other Modification unless it expressly so states.

**Non-Conformance Notice:** A notice issued by the Project Manager documenting that the work or some portion thereof has not been performed in accordance with the requirements of the Project Manual.

**Notice to Proceed:** The written notice of the OCFA to the Contractor to commence work under the Contract.

**OCFA:** The Orange County Fire Authority, a California Joint Powers Authority.

**Plans:** The drawings, supplemental drawings, or reproductions thereof, the project plans, standard plans, profiles, cross-sections, and all graphic depictions, which show the location, character, dimensions, and details of the work to be performed and contained in the Project Manual.

**Project:** The Project is the performance, construction, installation, and completion of the entire scope of all work as described in the Contract Documents.

Project Manager: The person or persons designated by the OCFA to serve as the Project Manager of the project.

Project Manual: Defined in Section 41 of the Contract Agreement.

Provide: To furnish, fabricate, complete, deliver, install, and erect including all labor, materials, equipment, apparatus, appurtenances, and expenses, necessary to complete in place, ready for operation or use under the terms of the Project Manual.

Regulatory Agency – A Federal, State or local governmental agency that has regulatory jurisdiction over one or more aspects of the Project. (Examples may include, but are not limited to the Regional Water Quality Control Board, the California Coastal Commission, or the South Coast Air Quality Management Board.)

Related Work: Work performed by the OCFA or by any separate Contractor retained or hired by the OCFA, related to the completion of the Project and which is not required to be performed by the Contractor pursuant to this Contract and the Project Manual.

Requests for Information: A written request from the Contractor or one of the Subcontractors to the Project Manager seeking an interpretation or a clarification of some requirement of the Project Manual. Contractor shall clearly and concisely set forth in writing the issue for which Contractor seeks clarification or interpretation and why a response is needed from the Project Manager. Contractor shall set forth Contractor's interpretation or understanding of the Project Manual's requirements along with reasons why Contractor reached such an understanding. Responses from the Project Manager will not change any requirements of the Project Manual unless so noted in the Request for Information response.

Scheduled Completion Date: The number of days specified in the Construction Schedule for completion of the Project.

Site or Sites: The land on which the Project will be constructed as specifically described in the Project Manual.

Specifications: The directives, provisions, and requirements contained in Project Manual, however such may be labeled or otherwise described.

Subcontractor: A person or organization having a direct contract with the Contractor to perform any of the Work at the Site or to supply any materials, equipment, or supplies to be incorporated in, or utilized in connection with, the Work and as used herein shall include the Subcontractor's authorized representative.

Substantial Completion of the Project: occurs when all of the following are achieved: (1) substantial completion of all Work; and (2) suitable to meet the requirements for the issuance of a certificate of occupancy and receipt of all other required approvals of construction from the Local Jurisdictions; and (3) in strict accordance with the Project Manual; and (4) such that OCFA may fully utilize the Project for the use for which it is intended. Early occupation of the Project by OCFA does not constitute Substantial Completion of the Project if one or more of the four factors above has not yet been achieved. (See Section General Conditions, Section 74.)

Supplemental Agreements: The written agreements covering alterations, amendments, or extensions to the Construction Contract and include contract change orders.

Work: All the work specified, indicated, shown, or contemplated in the Construction Contract to construct the Project, including all alterations, amendments, or extensions thereto made by contract change order or other written orders of the Project Manager, including each activity, labor, task, service, acquisition, purchase, installation, or action of any kind required to be performed under the terms of this Contract and as specified in the Project Manual.

## 52 The Project Manual

- 52.1 The Project Manual is defined in **Section 41** of the Contract Agreement. The Contractor has examined carefully the site of the work contemplated, the plans and specifications, and the proposal and contract forms therefor. The submission of a bid shall be conclusive evidence that the Contractor has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished and as to the requirements of the proposal, plans, specifications and the Construction Contract. The Contractor warrants and represents that, in executing the Contract and undertaking the Work, it has not relied upon any oral inducement or representation by OCFA, Project Manager, or any of their officers or agents as to the nature of the Work, the Site, the Project conditions or otherwise.
- 52.2 All parts and provisions of the Project Manual are complementary, and what is required by any one shall be as binding as if required by all. If the Project Manual does not specifically allow the Contractor a choice as to quality or cost of items to be furnished, but could be interpreted to permit such choice, subject to confirmation or approval by Project Manager, they shall be construed to require the Contractor to provide the best quality. Words and abbreviations which have well-known technical or trade meanings are used in the Project Manual in accordance with such recognized meanings.
- 52.3 Where conflict exists within or between parts of the Project Manual, or between the Project Manual and either applicable industry standards or applicable codes, ordinances, or other legal requirements, the more stringent requirements shall apply; otherwise, the following order of precedence shall be used: the Construction Contract; the Special Conditions of the Contract for Construction; these General Conditions of the Construction Contract; the balance of the Project Manual, and the Drawings. If the Contractor is required to perform any extra or corrective Work to comply with the preceding sentence, it shall not be entitled to an increase in the Contract Sum or Contract Time, and no claim shall result from such compliance. Subject to confirmation or approval by OCFA, more detailed Drawings take precedence over less detailed scaled Drawings, figured dimensions on the Drawings take precedence over scaled dimensions, and otherwise noted matters on the drawings take highest precedence.
- 52.4 Drawings take precedence over graphic representations. Contractor shall bring or submit to the Project Manager any such conflicts as soon as Contractor or its Subcontractors discover or learn about such apparent conflicts in the form of an RFI.
- 52.5 The organization of the Specifications into divisions, sections, and articles, and the arrangement of Drawings, are not intended to influence the Contractor in its division of the Work among Subcontractors or its establishment of the extent of the Work to be performed by any trade.
- 52.6 The Contractor shall request in writing that Project Manager provide any interpretations or clarifications necessary for the proper execution, coordination or progress of the Work. Such interpretations shall be issued by Project Manager in writing for implementation by the Contractor. The Contractor shall make all such requests for interpretation or clarification in writing.

- 52.7 The Project Manual reflects conditions as they are believed to exist, but it is not intended or to be inferred that the conditions as shown thereon constitute a representation by or on behalf of Authority that such conditions actually exist. The Contractor shall inspect the Site and conduct any tests or surveys it deems necessary or desirable prior to the commencement of the Work and shall accept full responsibility for any loss sustained by it as a result of any variances between the conditions as shown on the Project Manual and the actual conditions revealed during the progress of the Work or otherwise. The Contract Sum shall in no event be increased by reason of any such variance unless otherwise specifically provided herein.
- 52.8 The Contractor shall develop and maintain current "as-built" Plans to be provided to Project Manager in accordance with the Construction Contract and Section 01770 of the Project Manual. Project Manager may inspect and copy such Plans at any time during the course of the Work.
- 52.9 The intent of the plans and specifications is to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Construction Contract. Where the plans or specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall provide all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the contract in a satisfactory and workmanlike manner.

### **53 Contract Bonds.**

Both the Faithful Performance Bond and the Material and Labor Bond shall each be for not less than one hundred percent (100%) of the total Contract amount. The Material and Labor Bond shall remain in force until thirty-five (35) days after the date of recordation of the Notice of Completion. The Faithful Performance Bond will be held for one year after the date of recordation of the Notice of Completion.

Prior to the acceptance of any bond, the OCFA shall verify that the surety is an admitted surety in the State of California. If requested by the OCFA, the Contractor shall provide other information specified in the Code of Civil Procedure Section 995.660 to enable the OCFA to verify the sufficiency of the bond.

Should any bond become insufficient, the Contractor shall correct the insufficiency within ten (10) calendar days after receiving notice from the OCFA. The Contractor shall provide the OCFA with evidence of the correction within ten (10) calendar days of said correction. Should any surety at any time be unsatisfactory to the OCFA, written notice will be given to the Contractor to that effect. No further payments shall be deemed due or will be payable under the Contract until Contractor submits an acceptable bond from a surety accepted by the OCFA. Changes to the work or extensions of time made pursuant to the Contract Agreement shall in no way release the Contractor or the surety from its obligations. Notice of such changes or extensions shall be waived by the surety.

### **54 OCFA AND OCFA'S REPRESENTATIVES**

- 54.1 The work will be under the general direction of the Fire Chief. The Project Manager is the authorized representative of the Fire Chief and has complete charge of the work, and shall exercise full control of the work, so far as it affects the interest of the OCFA.
- 54.2 The provisions in this General Conditions or elsewhere in the Contract Documents regarding approval or direction by the Fire Chief, the OCFA, the Board of Directors, or the Project Manager, or action taken pursuant thereto, are not intended to and shall not relieve the

Contractor of responsibility for the accomplishment of the work, either as regards sufficiency or the time of performance, except as expressly otherwise provided herein.

- 54.3 The Project Manager is the OCFA's exclusive representative and agent to the Contractor with respect to this Project during construction and until the completion of the Project. The OCFA's communications with the Contractor shall be exclusively through the Project Manager.
- 54.4 Project Manager shall at all times have access to the work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- 54.5 The OCFA shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and will not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents.
- 54.6 The OCFA will not be responsible for the failure of the Contractor to plan, schedule, and execute the work in accordance with the approved schedule or the failure of the Contractor to meet the Contract Documents completion dates or the failure of the Contractor to Schedule and coordinate the work of Contractor's own trades and subcontractors or to coordinate with other Separate Contractors.
- 54.7 The OCFA will not be responsible for the acts or omissions of the Contractor, or any subcontractor, or any Contractor's or subcontractor's agents or employees, or any other persons performing any of the work.
- 54.8 The Project Manager has the authority to disapprove or reject work on behalf of the OCFA when, in the Project Manager's opinion, the work does not conform to the Contract Documents. Whenever, in the Project Manager's reasonable opinion, it is considered necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, the Project Manager has the authority to require special inspection or testing of any work in accordance with the provisions of the Contract Documents whether or not such work shall then be fabricated, installed, or completed.
- 54.9 The Project Manager has the authority to require special inspection or testing of the work. However, neither the Project Manager's authority nor any decision made by the Project Manager in good faith whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the OCFA to the Contractor, or any subcontractor, or any of their agents, or employees, or any other person performing any portion of the work.
- 54.10 The Project Manager has the authority and discretion, but not the obligation, to call, schedule, and conduct job meetings to be attended by the Contractor and representatives of Contractor's subcontractors, to discuss such matters as safety, procedures, progress, problems, and scheduling.
- 54.11 The Project Manager will establish procedures to be followed for processing all submittals, Change Orders, Progress payments, other project reports, documentation, and test reports.
- 54.12 The Project Manager will review all requests for changes and shall implement the processing of Change Orders including application for extensions of time.
- 54.13 The Project Manager will review and process all Progress Payment Requests by the Contractor including Final Progress Payment Requests.

- 54.14 Nothing contained in the Project Manual shall create any contractual relationship between Project Manager and the Contractor.
- 54.15 Except as otherwise provided in the Project Manual, and until the Contractor is notified in writing to the contrary, all actions to be taken by, all approvals, notices, consent, directions and instructions to be given by, all notices and other matters to be delivered to, all determinations and decisions to be made by and, in general, all other action to be taken by, or given to, OCFA shall be taken, given and made by, or delivered or given to, Project Manager in the name of and on behalf of OCFA. Only those so designated are authorized to grant on behalf of OCFA any approval, consent or waiver with respect to the Project Manual or the Work, or to otherwise act for OCFA in any capacity whatsoever.
- 54.16 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Project Manual either by the activities or duties of the Project Manager in its administration of the Contract, including, without limitation, by any inspections or tests required, or by approvals or other similar action with regard to shop drawings or submittals (of any type), or by the activities of persons other than the Contractor with respect to the Project. Further, notwithstanding the fact that a dispute, controversy or other question may have arisen between the parties hereto relating to the execution or progress of the Work, the interpretation of the Project Manual, the payment of any monies, the delivery of any materials or any other matter whatsoever, the Contractor shall not be relieved of its obligations to pursue the Work diligently under the Project Manual pending the determination of such dispute, controversy, or other question.
- 54.17 OCFA reserves the right, but assumes no duty, to establish and enforce standards, and to change the same from time to time, for the safety and protection of persons and property, with which the Contractor shall comply, and to review the efficiency of all protective measures taken by the Contractor. The exercise of or failure to exercise any or all of these acts by OCFA shall not relieve the Contractor of its duties and responsibilities under the Project Manual, and OCFA shall not thereby assume, nor be deemed to have assumed, such duties or responsibilities of the Contractor.

## **55 CONTRACTOR**

- 55.1 Composition: If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.
- 55.2 Examination of Plans, Specifications, and Site of Project: In addition to the representations and warranties contained in the Contract, the Contractor acknowledges that prior to execution of the Contract it has thoroughly reviewed and inspected the Project Manual, and satisfied itself regarding any error, inconsistency, discrepancy, ambiguity, omission, insufficiency of detail or explanation. OCFA shall not be responsible for any costs, nor liable to the Contractor for any damage, resulting from any such matter that the Contractor reasonably should have discovered. The Contractor shall perform no portion of the Work at any time which is not as provided or specified in the Project Manual or, where required, shop drawings, product data, or samples, for such portions bearing the Design Professional's appropriate action stamp. Work performed in violation of this provision shall be at the Contractor's risk
- 55.3 Contractor Certification: Contractor certifies and agrees that all the terms, conditions, and obligations of the Project Manual, the location and condition of the Site, and the conditions under which the work is to be performed have been thoroughly reviewed and investigated and Contractor enters into this Contract based upon Contractor's review and investigation of all such matters. Contractor certifies and agrees that Contractor is in no way relying upon

any opinions or representations of OCFA or the OCFA's officers, employees, agents, and consultants, including but not limited to, the Project Manager and the Design Professional.

- 55.4 Preparation of Documents: The Contractor shall carefully review and where appropriate or as may be required in the Scope of Work or at the direction of the Project Manager prepare drawings, specifications, and other instructions and shall at once report to Project Manager any error, inconsistency, or omission which Contractor may discover. Except as otherwise specifically provided hereinafter under warranties, the Contractor shall not be an agent for the OCFA.
- 55.5 Superintendence: The Contractor shall maintain on the site, during all construction activity, a competent superintendent and any necessary assistants, all satisfactory to the Project Manager. The superintendent shall not be changed except with the consent of the Project Manager, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ, in which case he/she shall be replaced immediately and in no case more than 24 hours with a superintendent acceptable to the Project Manager. The superintendent shall represent the Contractor and all directions given to the superintendent shall be as binding as if given to the Contractor. The Contractor shall provide Project Manager with complete work history profiles of management staff associated with this Project for Project Manager's review.
- 55.6 Licenses and Certificates: The Contractor represents and warrants that it has all necessary licenses and permits required by the laws of the United States, State of California, County of Orange, and any local jurisdiction, and all other appropriate governmental agencies, and agrees to maintain these licenses and permits in effect for the duration of this Contract. Further, Contractor warrants that its employees, agents, and contractors and subcontractors shall conduct themselves in compliance with all applicable laws and licensure requirements now in effect or as subsequently enacted or modified, as promulgated by any local, state, or federal governmental entities, including, without limitation, compliance with laws applicable to non-discrimination, harassment, and ethical behavior. Contractor shall notify the Project Manager immediately and in writing of its inability to obtain or maintain, irrespective of the pendency of any appeal, any such permits, licenses, approvals, certificates, waivers, and exemptions. Such inability shall be cause for termination of this Contract.
- 55.7 Materials and Equipment: The Contractor shall cause all materials and equipment to be delivered to the Site in accordance with any schedule or schedules therefore established from time to time and approved by Project Manager and, in any event, in a manner which will assure the timely progress and completion of the Work but will not encumber the Site unreasonably. Materials delivered to the Site for incorporation in the Work shall not be removed from the Site without the consent of Project Manager. The Contractor shall give, or shall require its Subcontractors to give, full and accurate quality, performance and delivery status reports, in a form satisfactory to Project Manager, regarding any materials and equipment, or such other data with respect thereto as may be requested by Project Manager, and shall obtain for Project Manager the written assurances of any manufacturer that its material or equipment is designed, and appropriate, for the use intended. The Contractor warrants to OCFA that all materials and equipment furnished under this Contract shall be new unless otherwise specified in the Project Manual and that all Work shall be of good quality, free from faults and defects and in conformance with the Project Manual. All Work not so conforming to these standards may be considered defective. All warranties and guarantees from Subcontractors (including, without limitation, manufacturers) shall be assignable to OCFA regardless of whether it is so stated therein, and the Contractor agrees to assign all such warranties and guarantees to the OCFA.

- 55.8 Completion Schedule: The Contractor shall prepare and submit, for Project Manager's approval, a Construction Schedule for the work which shall provide for expeditious and practicable execution of the work for completion within the Contract Time. This schedule shall be coordinated with the entire Project Construction Schedule to the extent required by the Contract Documents.
- 55.9 Reports by Contractor: Daily reports of the site and construction activities shall be provided to Project Manager. The reports shall follow the OCFA approved format including, but not limited to, information regarding trades at work, manpower, weather conditions, construction progress, and solutions to problems.
- 55.10 Contractor Responsibility: The Contractor shall supervise and direct the Work, using its best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, coordination, scheduling and procedures, for all cleanup and for all safety and weather precautions and programs, in connection with the Work. Contractor shall be solely responsible for the work and the Project as described in the Contract Documents. Contractor shall have complete control over the construction methods, techniques, and procedures, except as may be specifically provided in the Contract Documents. Contractor shall, at its sole cost and expense, perform all labor and services and furnish all material, tools, appliances, and equipment necessary and proper for performing and completing the Work of the Project in strict compliance with the terms and conditions of the Project Manual. Contractor shall provide all labor, materials, and equipment in conformity with the Project Manual and other directions as may be provided by the Project Manager. Contractor shall, at its sole cost and expense, prepare and fully comply with all provisions of the Quality Assurance/Quality Control Program as provided in the Project Manual.
- 55.11 Ongoing Oversight: Contractor shall keep itself continuously informed of the progress of the Work and the Related Work and will attend all meetings related to the Work and the Related Work as specified in the Project Manual and as identified in the Contractor's Construction Schedule. Contractor further agrees to work in a prompt, efficient, expert, and diligent manner and to furnish sufficient manpower to complete the Work in accordance with the Contractor's Construction Schedule. Contractor shall prosecute the Work diligently to completion. Contractor shall be responsible for the coordination and scheduling of all Work and the Related Work.
- 55.12 Ongoing Self-Inspection: Contractor shall, at its sole cost and expense, inspect its work to determine strict conformance to the requirements of the Project Manual. (This obligation of the Contractor is in addition to the Contractor's obligations to make repairs or to remedy deficient or unacceptable work as may be required under this Contract or any other provision of the Project Manual.) If some of the work performed on the Project does not comply with the requirements of the Project Manual, Contractor shall repair or replace such defective work at its sole cost and expense. Contractor shall gain no protection or right of reliance on the Project Manager's or Fire Chief's inspection of the work. If it is determined that the Project Manager or Fire Chief inspected work and failed to call defects or non-conforming items to the attention of Contractor, the OCFA shall not be deemed to have waived the requirements of the Project Manual or accepted the work.
- 55.13 Monitoring and Compliance: The Project Manager shall, at all times, have safe access to the Project site and its related work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of Contract Documents. All work done and all materials furnished shall be subject to Project Manager inspection. In the event the Project Manager finds or determines that the work or material are not in accordance with

the requirements and the intentions of the Contract Documents, the Project Manager shall issue a Non-Conformance Notice. Upon receipt of a Non-Conformance Notice the Contractor shall provide a written Response to the Non-Conformance Notice within five (5) working days after receipt of the Notice. The Contractor's response shall detail either (a) why Contractor believes that the work was performed in accordance with the Project Manual or (b) what corrective action Contractor intends to take, at its sole cost and expense, to correct the non-conforming work. If Contractor disputes issuance of the Notice, the Project Manager has five- (5) working days in which to respond by either (a) withdrawing the Notice of Non-Conformance or (b) directing the Contractor to correct the work. Such determination of the Project Manager shall be final and conclusive of the matter. If directed to correct the work, Contractor shall do so within five (5) working days after receipt of such direction from the Project Manager, or such other time as may be agreed in writing from the Project Manager.

- 55.14 **Inspectors:** In addition to the Project Manager, inspectors of Local Jurisdictions are authorized to enforce strict compliance with the terms and conditions of the Contract and the Project Manual and to determine the acceptability of materials and workmanship. Inspectors are authorized to reject work or materials if they determine that such work or materials do not conform to the requirements of the Contract and the Project Manual. Whenever an inspector determines that some work installed by the Contractor, or any Subcontractor or supplier at any tier does not conform to the requirements of the Contract, a Notice of Non-Conformance will be issued to record this determination. In the event of a dispute between the Contractor and an inspector concerning non-conforming work, the Contractor shall pursue the issue in accordance with the requirements of Subsection M above this Section 55 of this contract, relating to Non-Conforming Work. Inspectors other than the Project Manager are not authorized to issue or direct changes to the requirements of the Contract. In the event that the Contractor believes some direction given by an inspector does constitute a change to the requirements of the Contract, Contractor shall within two (2) days provide written notice to the Project Manager detailing the direction given, by whom, when and under what circumstances, and why the Contractor believes that such direction constitutes a change to the requirements of the Contract. Failure to provide such written notice to the Project Manager within the specified timeframe shall constitute a waiver of claim with respect to the direction received by the Contractor.
- 55.15 **Remedy and Repair of Work:** The inspection of the work or materials shall not relieve the Contractor of any of the Contractor's obligations to fulfill the Construction Contract as prescribed. Work and materials not meeting the requirements shall be made good, and unsuitable work or materials may be rejected, notwithstanding that the work or materials have been previously inspected by the Project Manager or that payment therefor has been included in a progress payment. All work which has been rejected as indicated in a Non-Conformance Notice shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed to the Contractor for the removal, replacement or remedial work. Payment shall not be made on any portion of the work for which a Non-Conformance Notice has been issued and the work not corrected to the satisfaction of the Project Manager.
- 55.16 **Failure to Comply:** Upon failure of the Contractor to comply promptly with any order of the Project Manager made under Paragraphs L, M, N, and O above, the Project Manager, with the approval of the Fire Chief, may cause rejected or unauthorized work to be remedied, removed, or replaced, and to deduct the costs from any moneys due or to become due the Contractor.
- 55.17 **Contractor Liabilities:** The Contractor shall be responsible to OCFA for the acts and omissions of its employees. The Contractor shall be held responsible for all damages

resulting from its employees or its subcontractors or agents from all errors, omissions, or negligence in the performance of the work and completion of the Project.

- 55.18 **Deficiencies in Contract Documents:** Contractor covenants and agrees that Contractor, its employees, agents, subcontractors, and suppliers have an affirmative duty and obligation to promptly disclose to the Project Manager any deficiency, error, or inconsistency in the Contract Documents and any of the plans and specifications contained therein, so that Project Manager, the OCFA, and the Design Professional can affect any required or necessary modification or clarification thereof in a timely and cost effective manner. In this regard and in furtherance of the Contractor's obligations, the Contractor agrees not to take advantage of errors or omissions in the Project Manual. It is the duty of the Contractor to promptly notify the Project Manager in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified methods and fails to promptly notify the Project Manager in writing of this belief, the Contractor thereby waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against the OCFA, or in any subsequent arbitration or settlement conference between the OCFA and the Contractor. The Project Manager, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after the Contractor becomes aware that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 55.19 **Ongoing Duty to Disclose:** If the Contractor, either before commencing work or in the course of the work, finds any discrepancy within the Project Manual, or between the Project Manual and the physical conditions at the Site, or finds an error or omission on the Plans, Specifications, or in any survey, the Contractor shall promptly notify the Project Manager in writing of such discrepancy, error, or omission. If the Contractor observes that the Project Manual is at variance with any applicable law, regulation, order, or decree, the Contractor shall promptly notify the Project Manager in writing of such conflict. The Project Manager, on receipt of such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor after the discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, omission, or conflict will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 55.20 **Duty to Coordinate:** The Contractor shall be responsible for coordinating any work carried on at the Site by other parties or by the OCFA, including the Related Work, simultaneously with the Work. The compensation to be paid to Contractor under this Contract includes any costs which the Contractor may incur as a result of coordinating the Work with such other work, including the Related Work. In no case shall the Contractor be entitled to extra compensation from the OCFA for damages suffered as a result of work being carried on at the Site by other parties or the OCFA simultaneously with the construction work for this Project. Nevertheless, if such work results in a delay to the Contractor's work beyond reasonable time allocations afforded to such work and Related Work identified on the Contractor's Construction Schedule as approved by the Project Manager, the Contractor may be eligible for an extension of time as specified in this Contract.
- 55.21 **Failure to Pay for Labor or Materials:** If Contractor fails to pay for labor or materials when due, OCFA may settle such claims by making demand upon the surety to this Agreement. In the event of the failure or refusal of the surety to satisfy said claims, OCFA may settle any claims directly and deduct the amount of payments from the Contract price and any amounts

due to Contractor. In the event OCFA receives a stop notice from any laborer or material supplier alleging non-payment by Contractor, OCFA shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.

- 55.22 Compliance with Laws: The Contractor shall, at its cost and expense, comply with all Laws, as any may now exist or be hereafter changed or added. It shall be the responsibility of the Contractor to familiarize itself with all such Laws, and any performance of the Work by or on behalf of the Contractor which is not in compliance with the Laws shall be at the Contractor's sole risk and expense. The Contractor shall notify OCFA prior to execution of the Contract (and, without limiting the continuous duty of the Contractor to advise the OCFA) of any instances where the Contract Documents are, or where the Contractor believes the Contract Documents are, not in compliance with the Laws.
- 55.23 Ongoing Responsibility: Any work or material not specified in the Project Manual but which by fair implication, in the judgment of the Project Manager, should be included therein, shall be accomplished, furnished, or provided by the Contractor as part of the Project Manual.
- 55.24 Taxes, Fees, and Licenses: The Contractor shall pay, or cause to be paid, all import duties and sales, consumer, use, excise, value added and ad valorem taxes required to be paid in connection with the Work or upon materials, tools or equipment brought to the Site or used in the Work. If any of the foregoing taxes are not paid in a timely manner, OCFA may withhold the amount of any such taxes from any amounts owing to the Contractor under the Project Manual, submit the amount so withheld to the appropriate taxing authority on behalf of the Contractor or its Subcontractors or Sub-subcontractors and offset said amount against the Contract Sum. The Contractor shall secure and pay for all governmental fees, permits and licenses which OCFA is not specifically required to provide and pay for under the Project Manual.
- 55.25 Tests: If the Project Manual, or any laws, ordinances, rules, regulations, or any orders or decrees of any public or quasi-public authority having jurisdiction, or common practice in the industry, require or dictate that the Contractor have any portion of the Work inspected, tested or approved, the Contractor shall advise Project Manager in a timely manner (in writing, if practicable) of its readiness and of the date arranged so that Project Manager may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests and approvals except as otherwise specified. Project Manager may require any special inspection, testing or approval of the Work not included under above, or any more stringent inspection, testing or approval thereof, in which event it shall instruct the Contractor to order such inspection, testing or approval, and the Contractor shall advise Project Manager in a timely manner (in writing, if practicable). If such inspection or testing reveals any failure of the Work or the performance thereof to comply with the more stringent of: (a) the requirements of the Project Manual; (b) applicable industry standards; or (c) applicable laws, ordinances, codes, rules, regulations or orders or decrees of any public or quasi-public authority having jurisdiction, or reveals any defect in the Work, the Contractor shall bear the costs of such inspection or testing and all costs to correct the Work to the satisfaction of Project Manager, which, if incurred by OCFA, may be offset by OCFA against any amounts then or thereafter due to the Contractor. If such inspection or testing proves that the Work was performed properly, OCFA shall bear the costs of such inspection or testing. Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by it to the Project Manager.
- 55.26 General: The duties and responsibilities of the Contractor as set forth in this Section 55 are in addition to, and not in lieu of, other duties and responsibilities of the Contractor enumerated elsewhere in the Project Manual.

**56 - RESPONSIBILITIES OF THE CONTRACTOR****56.1 CONTRACTOR'S EQUIPMENT AND FACILITIES.****56.1.1 General.**

**56.1.1.1 Conduct of the Work.** The Contractor shall behave, at all times, in a courteous, professional manner. While on site, or entering or exiting the site, there shall be no extraneous activity that might cause disruption to the Project site, surrounding areas, or residents. Failure to comply may result in the suspension of work, or removal of contractor's staff from the Project.

**56.1.1.2. Noise Levels.** A noise level limit of 86 dbA Max at a distance of fifty feet (50') shall apply to all construction equipment on or related to the job whether owned by the Contractor or not. The use of excessively loud warning signals shall be avoided except in those cases required for the protection of personnel. In addition to those requirements, all work shall comply with all applicable noise ordinances at all times.

**56.2 COOPERATION AND COLLATERAL WORK.**

The Contractor is advised as to the possibility of other construction projects within the proposed construction zone by the OCFA, other governing agencies or private enterprises. In the event of such projects, the Contractor shall coordinate with the applicable parties as to the extent of any time required to complete their work and shall schedule its work and conduct its operations so as to permit access and time as required for the concurrent work. The Contractor shall immediately notify the Engineer in the event of a delay in scheduling caused solely by this concurrent work. Payment for the above, if any, shall be deemed as included in the items of work as shown on the proposal bid sheet and no additional compensation will be allowed.

**56.3 PROJECT SITE MAINTENANCE.****56.3.1. Cleanup and Dust Control.**

The Contractor shall keep adjacent properties clean and free of rubbish and debris in a timely manner as necessary and/or as directed by the Engineer.

The Contractor shall implement effective handling, storage, usage, and disposal practices to control material pollution and manage waste and nonstormwater at the job site before they come in contact with storm drain systems and receiving waters.

**56.3.1.1 Construction Cleaning**

The Contractor shall:

- (a) Initiate and maintain a daily program to prevent accumulation of debris on-site and along access roads and haul routes. Maintain areas under Contractor's control free of waste materials, debris, weeds 6" high, and rubbish. Maintain site in a clean and orderly condition.
- (b) Provide suitable covered containers for deposit of debris and rubbish. Dispose of accumulation of extraneous materials, prohibit overloading of trucks to prevent spillages on access and haul routes and provide daily inspection of haul routes to enforce requirements.
- (c) The Contractor shall supply self-loading motorized street sweepers equipped with a

functional water spray system as part of his daily program.

- (d) Schedule at a minimum, weekly collection and disposal of debris. Provide additional collections and disposals of debris whenever the weekly schedule is inadequate to prevent accumulation.

The Contractor shall remove debris from closed or remote spaces prior to closing the space, control cleaning operations to minimize dust and other particulates and immediately remove clay and earth which adhere to the paved surface of the roadway. Remove by hand scraping, washing, sweeping, and/or other method(s) which will leave a clean non-skid surface without impairing, injuring or loosening the surface.

The Contractor is required to control dust throughout the life of the Contract. The control may be required by job conditions or Engineer. In any case, the Contractor shall use water or other effective means to control the dust. No chemical agents may be used without written authorization from the Agency. The Contractor shall be solely responsible for safety problems, accidents or any other complications or claims arising from inadequate dust control.

No separate payment will be made for any work performed or material used to control dust resulting from the Contractor's performance of the work, or by public traffic, either inside or outside the right-of-way. Full compensation for such dust control will be considered as included in the price paid for the various items of work involved.

No separate payment will be made for any work performed or material used in cleaning the Project. Full compensation for such cleaning shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefore.

## **57 Subcontracts**

- 57.1 Licensed Subcontractors: The Contractor shall comply with the provisions of the Subletting and Subcontracting Fair Practices Act (the "Act") (Public Contracts Code Section 4100 et seq.). The Contractor shall not terminate the employment of a Subcontractor or Sub-subcontractor engaged in the Work prior to the expiration of that subcontract without complying with the Act. The Contractor shall in all respects select the subcontractors in the manner provided under law. Each subcontractor selected for the work shall be licensed in the State of California in the subcontractor's particular field.
- 57.2 Transactions: Transactions with subcontractors shall be made through the Contractor. OCFA may assign to the Contractor any contracts or purchase orders entered into between OCFA and any other person or organization in any way related to the Project or the Work, at any time, in which event the Contractor shall assume full responsibility for such person or organization and its portion of the Work as if such person or organization was originally a Subcontractor. Such assignment may occur by Change Order or other Modification to the Contract, and any increase in the Contract Sum shall be governed by Section 01200 of the Project Manual.
- 57.3 Writing: All subcontracts and sub-subcontracts shall be in writing. Each subcontract and sub-subcontract shall contain a reference to this Contract and shall incorporate the terms and conditions hereof to the full extent applicable to the portion of the Work covered thereby. Each Subcontractor must agree, for the benefit of OCFA, to be bound by, and to require each of its Subcontractors to be bound by, such terms and conditions to the full extent applicable to its portion of the Work.
- 57.4 Responsibility: The Contractor shall be fully responsible to the OCFA for the acts and omissions of subcontractors and all persons directly or indirectly employed by them as Contractor is for the acts and omissions of Contractor and of persons directly or indirectly employed by

Contractor and shall pay each subcontractor promptly the amount allowed Contractor on account of such subcontractor's work to the extent of such subcontractor's interest therein.

- 57.5 Incompetent or Disorderly Conduct: If any Subcontractor or person employed by the Contractor shall appear to the Project Manager to be incompetent or to act in a disorderly or improper manner, such person shall be discharged immediately on the request of the Project Manager, and that person shall not again be employed on the work.
- 57.6 Mandatory Subcontract Terms: Each subcontract shall provide for its termination by the Contractor if, in Project Manager's opinion, the Subcontractor fails to comply with the requirements of the Project Manual insofar as the same may be applicable to its portion of the Work; and each Subcontractor shall be required to insert a similar provision in each of its sub-subcontracts. In the event of any such failure by a Subcontractor or Sub-subcontractor to comply with the requirements of the Project Manual, such Subcontractor or Sub-subcontractor, as the case may be, shall be removed immediately from the Work and shall not again be employed on the Work. The Contractor shall be responsible for all costs and expenses arising out of, and shall indemnify OCFA on account of, any such failure by a Subcontractor or Sub-subcontractor (specifically including, without limitation, a failure to pay for labor (including applicable fringe benefits) or materials).
- 57.8 Contractual Relations: Nothing contained in this Contract shall create any contractual relationship between OCFA or the Project Manager or the Design Professional on the one hand, and a subcontractor on the other.

## **58 Drawings And Specifications**

- 58.1 Checking: The Contractor, as part of this Contract, shall agree not to take advantage of errors or omissions in the Contract Documents, including any plans and specifications thereto. It is the duty of the Contractor to promptly notify the Project Manager in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified methods and fails to promptly notify the Project Manager in writing of this belief, the Contractor thereby waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against the OCFA, or in any subsequent arbitration or settlement conference between the OCFA and the Contractor. The Project Manager, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after the Contractor becomes aware that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 58.2 Discrepancy in Contract Documents: If the Contractor, either before commencing work or in the course of the work, finds any discrepancy within the Contract Documents, or between the Contract Documents and the physical conditions at the Project site, or finds an error or omission on the plans, specifications, or in any survey, the Contractor shall promptly notify the Project Manager in writing of such discrepancy, error, or omission. If the Contractor observes that the Contract Documents is at variance with any applicable law, regulation, order, or decree, the Contractor shall promptly notify the Project Manager in writing of such conflict. The Project Manager, on receipt of such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor after the discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, omission, or conflict will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.

- 58.3 Implication: Any work or material not specified in the Contract Documents but which by fair implication, in the judgment of the Project Manager, should be included therein, shall be accomplished, furnished, or provided by the Contractor as part of the Contract Documents.
- 58.4 Precedence: Figures marked on drawings shall in general be followed in reference to scale measurements. Large scale drawings shall in general govern small scale drawings. Specifications and schedules shall govern over drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors. When measurements are affected by conditions already established, the Contractor shall take measurements notwithstanding the giving of scale or figure dimensions in the drawings. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to the Project Manager, without whose decision Contractor shall not adjust said discrepancy save only at Contractor's own risk and expense. The decision of the Project Manager shall be final.
- 58.5 Shop Drawings: The Contractor shall establish, implement, and supervise the submission of shop drawings and other submittals (of any type) in accordance with the Schedule and any Milestones. The Contractor shall note any variances between any such shop drawings or other submittals and the Project Manual for the benefit of OCFA at the time of submission. No approval or other similar action regarding any such submission shall be binding in any way upon OCFA.
- 58.6 Drawings and Specifications at the Site: The Contractor shall keep available at the site for ready reference a complete set of all contract drawings, details, supplementary drawings and approved shop drawings, a complete copy of the specifications with all addenda, bulletins, amendments, and copies of Project correspondence. The Contractor shall maintain on the site a complete "as built" record set of prints. In addition, the Contractor shall keep on the site as required a copy of each manufacturer's current printed recommendations. Contractor shall also submit a copy to the Project Manager.
- 58.7 Deviations: Deviations from the drawings and the dimensions therein given, whether or not error is believed to exist, shall be made only after written authority is obtained from the Project Manager.

## **59 Divisions Of The Specifications**

- 59.1 For convenience, the work as described in the Contract Documents are arranged in several divisions and sections, but such separations shall not be considered as the limits of the work required for any subcontract or trade: the terms and conditions of such limitations are wholly between the Contractor and his subcontractors, and the OCFA will not be responsible for any division of work by subcontractors. The Contractor will be solely responsible for all subcontract arrangements of work regardless of the location of provisions in the specifications.
- 59.2 Schedules of work included in the sections, where listed, are given for convenience only, and shall not be considered as a comprehensive list of items or work necessary to complete the work of any section.
- 59.3 Where devices or items or parts thereof are referred to in the singular, it is intended that such reference shall apply to as many soon devices, items, or parts as are required to properly complete the work.

- 59.4 Each section of the specifications is covered by applicable requirements of the Contract Documents and other related sections as if therein written.

## **60 Site Conditions**

- 60.1 Existing Site Conditions: Information respecting the site of the work given in drawings or specifications has been obtained by OCFA's representatives and is believed to be reasonably correct, but the OCFA does not warrant either the completeness or accuracy of such information, and it is the responsibility of the Contractor to verify all such information.
- 60.2 Changed Conditions: The Contractor shall promptly, and before such conditions are disturbed, notify the Project Manager in writing of:
- 60.2.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or
- 60.2.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents. The Project Manager shall promptly investigate the conditions, and if, as a result, finds that such conditions do so materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for performance an equitable adjustment shall be made and the Contract Documents modified in writing accordingly. Any claim of the Contractor for adjustment hereunder shall not be allowed unless Contractor has given notice as above required.
- 60.3 Public Utility Facilities on Project Site: Pursuant to Government Code, Section 4215, the Contractor shall be compensated for the costs of locating and repairing damage to public utility facilities on the Project site which was not due to failure of Contractor to exercise reasonable care, and removing or relocating main or trunk line utility facilities located on the Project site, if such work is required in the Contract Documents or the Project Manager. Such compensation shall also cover the cost of Contractor's equipment necessarily idled during such work. This provision shall not be deemed to require compensation when the presence of existing service laterals or appurtenances can be inferred from the presence of visible facilities such as buildings, meter and junction boxes, on or adjacent to the construction site. If the Contractor discovers such unidentified utility facilities during construction, Contractor shall immediately notify the Project Manager and the utility in writing.
- 60.4 Space at Site: The Contractor shall be allowed reasonable space at the site of the work as available and access thereto and shall confine Contractor operations to the space assigned. The work shall be done without interference with the ordinary use of the fire station. The Contractor shall cooperate with other Contractors of the OCFA and shall not commit or permit any act which will interfere with the performance of work by any other Contractor or employees of the OCFA whether at the site or not.

## **61 Conditions Affecting The Work**

The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve Contractor from responsibility for successfully performing the work without additional expense to the OCFA. The OCFA assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of the Contract Documents, unless such understanding or representations by the OCFA are expressly stated in the Contract Documents.

**62 OCFA's Property On Site**

All fixtures, facilities, equipment, vehicles, furniture, and all other personal property of the OCFA located at the job site which are removed in the course of construction of the Project remain the property of the OCFA unless express provision to the contrary is made in the Contract Documents, and the Contractor shall exercise reasonable care to prevent loss or damage to said property and shall deliver promptly such property to the place designated by the Project Manager.

**63 Protection**

- 63.1 The Contractor shall, throughout the performance of the Work, maintain adequate and continuous protection of all Work, all material and supplies, and temporary facilities against loss or damage from whatever cause, shall protect the property of OCFA and third parties from loss or damage from whatever cause, and shall comply with the requirements of OCFA and its insurers and with all applicable laws, codes, rules and regulations with respect to the prevention of loss or damage to property as a result of fire or other hazards.
- 63.2 The Project Manager may, but shall not be required to, make periodic patrols of the Site as a part of its normal security and safety program. In such event, however, the Contractor shall not be relieved of its aforesaid responsibilities and OCFA shall not assume same, nor shall it be deemed to have assumed, any responsibility otherwise imposed upon the Contractor by the Contract.
- 63.3 Until final acceptance of the Work by OCFA, the Contractor shall have full and complete charge and care of and, except as otherwise provided in this Subparagraph, shall bear all risk of loss of, and injury or damage to, the Work or any portion thereof (specifically including OCFA-furnished supplies, equipment or other items to be utilized in connection with, or incorporated in, the Work), materials, equipment, and supplies, from any cause whatsoever, subject to the limitations set forth below.
- 63.4 The Contractor shall rebuild, repair, restore, replace, and make good all losses of, and injuries or damages to, the Work or any portion thereof (specifically including OCFA-supplied, equipment or other items to be utilized in connection with, or incorporated in, the Work), material, equipment, and supplies before final acceptance of the Work. Such rebuilding, repair, replacement, or restoration shall be at the Contractor's sole cost and expense.
- 63.5 Contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. Contractor shall comply with the provisions of the Construction Safety Orders issued by the State Division of Occupational Safety & Health. Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction thereof which theretofore may have been accepted.
- 63.6 The Contractor shall maintain continuously adequate protection of all work from damage and shall protect the OCFA's property from injury or loss arising in connection with the Contract Documents. Contractor shall make good any such damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or representatives of the OCFA. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents, and shall maintain reasonable security of the site at all times, if necessary. Contractor shall limit visitors to the site to those necessary for construction and inspections. Visitors for other purposes shall be referred to the Project Manager. Contractor's and subcontractors' employees shall possess means of identification at all times as required by the Project Manager while on the job site.

- 63.7 In an emergency affecting the safety of life or of the work or of adjoining property the Contractor, without special instruction or authorization from the OCFA, is hereby permitted to act at Contractor's discretion to prevent such threatened loss or injury. Contractor shall so act if directed or instructed by the Project Manager. Any dispute as to compensation claimed by the Contractor on account of emergency work shall be determined by agreement as hereinafter set forth.
- 63.8 The Project Manager may notify the Contractor of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately correct such conditions. Such notices, when delivered to the Contractor or Contractor's representative at the site of the work, shall be deemed sufficient for said purpose. Failure of receipt of such notice from the Project Manager shall not relieve the Contractor of responsibility.
- 63.9 If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop order shall be made the subject of a claim for extension of time or for excess costs or damages to the Contractor. The Contractor will be responsible for ensuring that his subcontractors comply with the provisions of this Section 63.
- 63.10 Surface or Subsurface water or other fluid shall not be permitted to accumulate in excavations or under the structures. Should such conditions develop or be encountered, the water or other fluid shall be controlled and suitably disposed of by means of temporary pumps, piping, drainage lines and ditches, dams or other methods approved in writing by OCFA. The proposed location and coordination of temporary channels and conduits conducting accumulated water from the Site shall be submitted to Project Manager for its prior written approval. All such work shall be done at the sole expense of the Contractor, and in accordance with the Federal National Pollutant Discharge Elimination System (NPDES) and the NPDES General Construction Permit which includes the Contractor's Storm Water Pollution Prevention Plan (SWPPP) pursuant thereto.

## **64 Payments**

The OCFA shall make payments upon the contract price in accordance with the Contract Documents.

## **65 Assignment**

The Contract Documents, and any portion thereof, may not be assigned by the Contractor. Claims for monies due or to become due the Contractor from the OCFA under the Contract Documents may be assigned, with the written consent of the Board of Directors, to a bank, trust company, or other financing institution and may thereafter be further assigned or reassigned to any such institution. To effect such assignments, the Contractor, or Contractor's assignee, shall submit a written request to the Board of Directors enclosing a letter from the proposed assignee indicating that it will accept such assignment. Any attempted assignment contrary to provisions of this paragraph shall be void.

## **66 Other Contracts**

The Board of Directors may undertake or award other contracts for additional work or other work, and the Contractor shall fully cooperate with such other contractors and OCFA employees and carefully fit Contractor's own work to such additional work as may be directed by the Project Manager. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by OCFA employees.

**67 Warranty / Warranty Work**

- 67.1 One-Year Warranty: The Contractor agrees to maintain and guarantees for a period of twelve (12) months from the date of the issuance of the certificate of acceptance of the Project or the issuance of a temporary certificate of occupancy as requested by the Fire Chief in the Fire Chief's sole discretion, whichever event occurs first, (and for such additional or extended periods for portions of the Work as provided in the Project Manual), that the completed work is free from all defects due to faulty materials, equipment or workmanship and that Contractor shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs or any damage to the Site, Project, Work, or any system installed therein resulting from such defects. .
- 67.2 Warranty Work / Normal Response Time: In the event of failure to comply with the above-mentioned conditions within one (1) week after being notified in writing, the OCFA is hereby authorized to proceed to have the defects remedied and made good at the expense of the Contractor who hereby agrees to pay the cost and charges therefore immediately on demand.
- 67.3 Warranty Work / Emergency Response Time: If in the opinion of the OCFA, defective work creates a dangerous condition, affects the OCFA's essential operations / essential use of the facility, affects the safety or preservation of property or personnel, or requires immediate correction or attention to prevent further loss to the OCFA, the Contractor shall be required to take corrective action within 24 hours after personal or telephonic notice by the OCFA's Property Management Section. If the Contractor cannot be contacted or does not comply with the OCFA's request for correction within 24 hours (or a reasonable time as determined by the OCFA), the OCFA may, notwithstanding the provisions of this Section 67, proceed to make such correction, the cost of which shall be charged against the Contractor.
- 67.4 Failure to Take Corrective Action: Failure by the Contractor to take corrective action as specified above shall constitute a material breach of this agreement and will result in the OCFA taking whatever corrective action it deems necessary including termination of this agreement. All costs resulting from such action by the OCFA will be claimed against Contractor or, if necessary, the Contractor's Performance Bond. The Contractor's Performance Bond shall remain in full force and effect through the warranty period.
- 67.5 Alternative Remedy: In the event that the Contractor fails to make adjustments, repairs, corrections or other work made necessary by such defects, or to properly maintain and service the Project, the OCFA may do so and charge the Contractor the cost incurred. The performance bond shall remain in full force and effect through the guarantee period or, at the option of the Contractor, a warranty bond in the amount of one hundred percent of the Contract price may be substituted for the performance bond. Such warranty bond must be in a form approved by OCFA General Counsel, be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety, and must have and maintain, throughout the warranty period, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide.
- 67.6 All Inclusive Remedies: The Contractor's obligations under this clause are in addition to the Contractor's other express or implied assurances of this Contract, Project Manual, or state law and in no way diminish any other rights that the OCFA may have against the Contractor for faulty materials, equipment, or work.

**68 Extra Work And Changes**

68.1 The Contract price as set forth in the Contract and the Contractor's Bid, includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in this Section 68. OCFA shall extend the time fixed in the Contract Documents for completion of the Project by the number of days reasonably required for Contractor to perform the extra work only if Contractor is actually delayed in the performance of any item of the Project on the critical path by:

- 68.1.1 Any act or neglect of OCFA, Project Manager, Design Professional, or any employee, agent, or representative of OCFA; or
- 68.1.2 Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or
- 68.1.3 Unusually severe weather conditions not reasonably anticipatable for that portion of the Site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or
- 68.1.4 Excusable Transportation Delays; or
- 68.1.5 Excusable Labor Disputes; or
- 68.1.6 Acts of God; or
- 68.1.7 National Emergency, declared by the President of the United States.

In the event one or more of the specific situations described above occurs, the Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor as determined by Project Manager. The decision of the Project Manager shall be final.

- 68.2 The Project Manager may, at any time, by written order, and without notice to the sureties, make changes in the drawings or specifications of the Contract Documents if within the general scope thereof. A change order shall also be any other written order (including direction, instruction, interpretation or determination) from the OCFA which causes any change, provided Contractor gives the OCFA written notice stating the date, circumstances and source of the order and that Contractor regards the order as a change order.
- 68.3 If any change under this Section 68 causes an increase or decrease in Contractor's actual direct cost or the time required to perform any part of the work under this Contract, whether or not changed by any order, the Project Manager shall make an equitable adjustment and modify the Contract in writing. Except for claims based on defective specifications, no claim for any change shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice as required below. In the case of defective specifications for which the OCFA is responsible, the equitable adjustment shall include any increased direct cost Contractor reasonably incurred in attempting to comply with those defective specifications.
- 68.4 No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate pursuant to the provisions of this Section 68 and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project

- by the Scheduled Completion Date or to complete a Milestone. Project Manager's decision will be conclusive on the parties to this Contract.
- 68.5 No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract.
- 68.6 No extension of the Scheduled Completion Date or the right on the part of Contractor to secure any such extension pursuant to this Section 68 shall prejudice any right OCFA may have under the Project Manual, or otherwise, to terminate this Contract.
- 68.7 The Contract Price includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in in this Section 68.
- 68.8 Project Manager may extend the Scheduled Completion Date by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.
- 68.9 The OCFA or the Fire Chief may order modifications or authorize change orders for any reason. Such modifications shall be reviewed, evaluated, and processed in the manner specified in this Section 68.
- 68.10 Project Manager may at any time, without notice to any surety, by written order designated or indicated to be a Class 1 or Class 2 Change Order, make any change in the work within the general scope of the Contract, including, but not limited to, changes in:
- 68.10.1 The Project Manual (including drawings and designs);
  - 68.10.2 The time, method, or manner of performance of the work;
  - 68.10.3 The OCFA-furnished facilities, equipment, materials, services, or site; or
  - 68.10.4 Directing acceleration in the performance of the work.
- 68.11 Except as provided in this Section 68, no order, statement or conduct of the OCFA or its representatives, including, but not limited to the Fire Chief, Project Manager, or the Design Professional, shall be treated as a change under this Section 68 or entitle Contractor to an equitable adjustment.
- 68.12 If any change under this Section 68 causes an increase or decrease in Contractor's actual, direct cost or the time required to complete the Project or a Milestone under this Contract and Project Manual, whether or not changed by any order, the Project Manager shall make an equitable adjustment and the OCFA shall modify the Contract in writing. Except for Class 1 claims based on defective provisions of the Project Manual, no claim for any change under Section 1.16 shall be allowed for any costs incurred more than 15 days before the Contractor gives written notice as required in this Section 68. In the case of defective specifications for which the OCFA is responsible, the equitable adjustment shall include any increased direct cost Contractor reasonably incurred in attempting to comply with those defective specifications.

- 68.13 If Contractor intends to assert a claim for an equitable adjustment under this Section 68, it must, within fifteen (15) days after receipt of a written change order under this Section 68 or the furnishing of a written notice hereunder, submit a written statement to the Project Manager setting forth the general nature and monetary extent of such claim. Such claim shall contain the documentation and information as specified herein. The Project Manager may extend the 15-day period so long as the request for the extension is submitted within such 15-day period and only for good and justified cause. Project Manager's decision regarding any request for extension shall be final and binding on all parties.
- 68.14 Claim documentation shall conform to generally accepted accounting principals and all supporting documentation shall be cited by reference, photocopies, or explanation. Supporting documentation may include, but shall not be limited to, general conditions, general requirements, technical specifications, drawings, correspondence, conference notes, shop drawings logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary schedules or time impact analyses, photographs, technical reports, requests for information, field instructions, and all other related records necessary to support Contractor's claim.
- 68.15 Supporting documentation of damages for each claim shall be cited, photocopied, or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the bid; certified, detailed labor records including labor distribution reports, material and equipment procurement records, construction equipment ownership cost records or rental records, Subcontractor or vendor files and cost records, service cost records, purchase orders, invoices, project as planned and as-built records, general ledger records, variance reports, accounting adjustment records, and any other accounting materials necessary to support Contractor's claim.
- 68.16 Each copy of the claim documentation shall be certified by a responsible office of the Contractor in accordance with the requirements of the Project Manual.
- 68.17 Should Contractor be unable to support any part of the claim and it is determined that such inability is attributable to falsity of such certification or misrepresentation of fact or fraud on the part of Contractor, the Contractor shall be liable to OCFA as provided for under California Government Code Section 12650 et seq.
- 68.18 Disputed work shall be performed as ordered in writing by the Project Manager, so long as the cost of such work is within the OCFA of the Project Manager as described above, so as to minimize the impact on, and delays to, the Work.
- 68.19 Costs which shall not be allowed or paid in Change Orders or claim settlements under this Contract include, but are not limited to, interest cost of any type other than those mandated by statute; claim preparation or filing costs; legal expenses; the costs of preparing or reviewing proposed Change Orders or change order proposals concerning change orders which are not issued by the OCFA; lost revenues; lost profits; lost income or earnings; rescheduling costs; costs of idled equipment when such equipment is not yet at the Site or has not yet been employed on the Work; lost earnings or interest on unpaid retainage; claims consulting costs; the costs of corporate officers or staff visiting the Site or participating in meetings with the OCFA; any compensation due to the fluctuation of foreign currency conversions or exchange rates; loss of other business; or any other cost identified as unallowable cost under the provisions of the Federal Acquisition Regulations.
- 68.20 No claim by Contractor for an equitable adjustment shall be allowed if made after final payment under this Agreement. Contractor hereby agrees to make any and all changes, furnish the materials and perform the work that OCFA or its Project Manager may require without

nullifying this Contract. Contractor shall adhere strictly to the Contract Documents unless a change therefrom is authorized in writing by the Project Manager, subject to the limitations contained herein. Under no condition shall Contractor make any changes to the Project, either in additions or deductions, without the written order of the OCFA or its Project Manager and the OCFA shall not pay for any extra charges made by Contractor that have not been agreed upon in advance in writing by the OCFA. Contractor shall submit immediately to the OCFA written copies of its firm's cost or credit proposal for change in the work. Disputed work shall be performed as ordered in writing by the OCFA or the Project Manager and the proper cost or credit breakdowns therefor shall be submitted without delay by Contractor to the Project Manager.

- 68.21 Project Manager is authorized by the Board of Directors to make, by written order, changes or additions to the work within the scope of the Contract Documents. This authority to approve changes is limited to 10% of the original contract amount. All changes over the amounts specified above shall be subject to the approval of the Board of Directors. Any change or addition of any kind pursuant to any provision of the Contract Documents which exceeds the limits described in this subsection and which have not been approved by the Board of Directors is void and can not be enforced against the OCFA.
- 68.22 Any claim of the Contractor for adjustment under this Section 68 or any other provision of the Project Manual must be asserted in writing within 15 days from the date of receipt by the Contractor of the notification of change unless the Board of Directors or Project Manager grants a further period of time before the date of final payment under the Contract Documents. Nothing provided in this Section 68 shall excuse the Contractor from proceeding with the prosecution of the work as changed. Except as otherwise provided in this Contract, no charge for any extra work or material will be allowed.
- 68.23 Labor wage rates shall not exceed the Prevailing Wage Rates supported by payroll records. Equipment rental rates should be based on latest edition of equipment rental rates published by the State of California Department of Transportation; Division of Construction.
- 68.24 Nothing in this Section 68 shall excuse the Contractor from proceeding with the Contract Documents as changed.

## **69 No Verbal Modifications**

No verbal statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of the Contract or the Project Manual.

## **70 Material, Workmanship, And Acceptance**

- 70.1 Where materials are specified by reference to standard specifications of the American Society for Testing Materials (A.S.T.M.), Federal Specifications, or others, all applicable provisions of the designated specifications shall be considered as forming a part of the Contract Documents to the same force and effect as if repeated therein.
- 70.2 All work under this Contract Documents shall be performed in a skillful and workmanlike manner. The Project Manager may, in writing, require the Contractor to remove from the work any employee the Project Manager deems incompetent, careless, or otherwise objectionable.
- 70.3 The Contractor shall, without charge, replace any material or correct any workmanship found by the Project Manager not to conform to the contract requirements, unless in the public interest the Project Manager consents to accept such material or workmanship with an

appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

70.4 If the Contractor does not promptly replace rejected material or correct rejected workmanship, the OCFA (1) may, by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) may terminate the Contractor's right to proceed in accordance with these General Conditions.

70.5 Unless otherwise provided in the Contract Documents, acceptance by the OCFA shall be accomplished by recordation of Notice of Completion which shall be made as promptly as practicable after completion and inspection of all work required by the Contract Documents. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regard the OCFA's rights under any warranty or guarantee. Informal procedures such as "punch lists" are not to be deemed final or conditional acceptance.

## **71 Termination For Default & Damages For Delay**

71.1 The Contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party, provided that no termination may be effected unless the other party is given: (1) Not less than ten (10) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate; and (2) An opportunity for consultation with the terminating party prior to termination.

71.2 If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in the Contract Documents or any extension thereof, or fails to complete said work within such time, the Board of Directors may, by written notice to the Contractor, terminate Contractor's right to proceed with the work or such part of the work as to which there has been delay. In such event, the OCFA may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completion the work such materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, Contractor and Contractor's sureties shall be liable for any damage to the OCFA resulting from Contractor's refusal or failure to complete the work within the specified time.

71.3 Fixed and agreed liquidated damages are provided in the Contract Documents, these General Conditions, paragraph 1.38 J. If the OCFA so terminates the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the OCFA in completing the work.

71.4 Fixed and agreed liquidated damages are provided in the Contract Documents, these General Condition, paragraph 1.38 J. If the OCFA does not so terminate the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until the work is completed or accepted.

71.5 The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if the Contractor is actually delayed in the performance of any item of the Project on the critical path by:

71.5.1 Any act or neglect of OCFA, Project Manager, Design Professional, or any employee, agent, or representative of OCFA; or

- 71.5.2 Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or
- 71.5.3 Unusually severe weather conditions not reasonably anticipatable for that portion of the County of Orange where the Project site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or
- 71.5.4 Excusable Transportation Delays; or
- 71.5.5 Excusable Labor Disputes; or
- 71.5.6 Acts of God; or
- 71.5.7 National Emergency, declared by the President of the United States.

The Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor. No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate as provided above and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project by the scheduled completion date. Project Manager's decision will be conclusive on the parties to this Contract. No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract. Project Manager may extend the time indicated for completion of the Project by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.

The rights and remedies of the OCFA provided in this Section 71 are in addition to any other rights and remedies provided by law or under the Contract Documents.

## **72 OCFA's Rights Regarding Work**

- 72.1 If the Work or any portion thereof is defective and/or does not conform to the Project Manual, or if Contractor fails to supply sufficient skilled workers and suitable material, services, or equipment, or if Contractor fails to make prompt payments to Subcontractors or for labor, materials, or equipment, or if Contractor fails to supervise or coordinate the Work, or if grounds exist pursuant to any other provision of the Project Manual, Project Manager may order Contractor to stop the Work, or any portion thereof, until cause for the order to stop has been eliminated. Project Manager's exercise of this right to stop the Work shall not give rise to any duty on the part of the Project Manager to exercise this right for the benefit of Contractor or any other party. This right to stop the Work pursuant to this Section 72 is in addition to and not in limitation of OCFA's rights to terminate this Contract in accordance with the Project Manual.

- 72.2 Project Manager may at any time and without cause suspend the Work or any portion thereof by written notice to Contractor and a Change Order shall be issued extending the Scheduled Completion Date by the number of days of such suspension. For suspensions of the Work which are fourteen (14) days or less, Contractor shall recommence the Work at the direction of Project Manager with the Lump Sum Price remaining unchanged. Provided Contractor is not in default of the terms of the Project Manual, if there is a suspension of Work or suspensions which in the aggregate extend beyond fourteen (14) days, Contractor shall recommence the Work at the direction of Project Manager and Contractor and Project Manager shall, at Contractor's written request and through good faith negotiations, equitably adjust the Scheduled Completion Date and any Milestones, and shall equitably adjust the Lump Sum Price, in an amount to be approved by the Fire Chief or the OCFA, which approval shall not be unreasonably withheld, for each day of such suspension exceeding fourteen (14) days. Adjustments to the Scheduled Completion Date or completion of a Milestone shall only be provided to the extent the suspension of Work actually adversely affects the Scheduled Completion Date or completion of a Milestone, as determined by Project Manager. The decision of the Project Manager shall be final.
- 72.3 In the event the Project Manager determines that the progress of the Work is behind the progress set forth in the Contractor's Construction Schedule, Project Manager may require Contractor to take such actions as the Project Manager deems necessary to expedite the progress of the Work in conformance with the progress set forth in the Contractor's Construction Schedule. Such actions may include without limitation, increasing the number of workers performing the Work, utilizing overtime work, and requiring additional work shifts. Such action by Project Manager to place Contractor back on schedule shall not be the subject of a Change Order increasing the Lump Sum Price, nor shall Contractor receive any additional compensation for these activities.
- 72.4 Contractor shall cooperate with OCFA, Project Manager, Design Professional, and all other persons as OCFA may retain or employ for (by way of illustration only) installation of furniture, decoration, and training, and the like at the Project. Contractor acknowledges that it is critical to OCFA that separate Contractors are allowed to perform and coordinate the installation of furnishings, fixtures, and equipment not covered by this Contract but necessary for the Project. Contractor covenants to use its best efforts to prevent OCFA from suffering delay in completion of the Work as a result of Contractor's failure to cooperate and coordinate its work with Related Work as required by the Project Manual.
- 72.5 To the extent that OCFA timely provides to Contractor information relating to the work of its separate Contractors, the interrelationships between the work of separate Contractors and/or third parties such as OCFA's purchasing agent and any other special consultants shall be indicated on the Contractor's Construction Schedule to allow OCFA to provide for proper phasing.

### **73 Contract Price; Method of Payment; Retention Of Funds**

- 73.1 OCFA agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Contract, subject to any subsequent additions or deductions as provided in approved change orders, the sum as itemized in the Exhibit K: Schedule of Values.
- 73.2 Progress payments shall be made to the Contractor per month for each successive month as the work progresses. The Contractor shall be paid such sum as will bring the total payments received since the commencement of the work up to ninety percent (90%) of the value of the work completed, less all previous payments, provided that the Contractor submits the request for payment prior to the end of the day required to meet the payment schedule. The OCFA

will retain ten percent (10%) of the amount of each such progress estimate and material cost until 30 days after the recordation of the Notice of Completion.

- 73.3 The Contractor shall request payment through the preparation and submission to OCFA of an Invoice in accordance with the Project Manual. It shall show in detail all monies properly payable to the Contractor, approved by the Project Manager, in accordance with the previously approved activities as identified on the Contractor's Construction Schedule, including those items of labor, materials, and equipment used or incorporated in the Work (and, if OCFA has agreed in advance in writing, suitably stored at the Site) through and including the Payment Application Date. The Application for Partial Payment shall have, as attachments waivers of mechanics' and materialmen's liens by the Contractor and its Subcontractors and Sub-subcontractors as of the date of submission of the Application for Partial Payment, which waivers shall conform in all material respects with the then current provisions of Section 3262 of the California Civil Code (or any successor thereto), certifications of payrolls (30 days in arrears), and such other evidence of performance of the Work, the costs thereof and payment therefor as OCFA may deem necessary or desirable.
- 73.4 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Partial Payment shall pass to OCFA, free and clear of all liens, claims, security interests or encumbrances, upon the sooner occurrence of: (a) the delivery of any such materials or equipment to the Site; or (b) the tender of payment of the applicable Application for Partial Payment by OCFA to the Contractor; and that no Work, materials, or equipment covered by an Application for Partial Payment shall have been acquired, whether by the Contractor or by any Subcontractor or Sub-subcontractor, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person. The passage of title to OCFA as provided herein shall not alter or limit the obligations and duties of the Contractor with respect to the Work and the materials or equipment incorporated therein or used in connection therewith as set forth in the Project Manual. In this regard, it is specifically noted that neither the OCFA, nor its Directors, officers, employees, or agents shall be held responsible in any manner for any loss that may happen to the Work or any part thereof during the course of construction; for any loss or damage to any of the materials, equipment, supplies, or other things used or employed in performing the Work; for injury to or death of any person, either workers or the public; or for damage to property, from any cause that might have been prevented by the Contractor, Contractor's workers, employees, Subcontractors, suppliers, or agents.
- 73.5 If the Contractor has submitted an Application for Partial Payment in the manner prescribed in the Project Manual, The Project Manager shall, with reasonable promptness, review, approve the same (or such portions thereof covering amounts it determines to be properly due), or shall state in writing its reasons for withholding its approval (whether of all or a part).
- 73.6 The Project Manager's approval of an Application for Partial Payment shall not constitute a representation by OCFA that the conditions precedent to the Contractor's entitlement to payment have been fulfilled, nor shall approval of an Application for Partial Payment by OCFA be deemed a representation by OCFA: (a) that it has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (b) that it has reviewed the construction means, methods, techniques, sequences, coordination or procedures, or the cleanliness of the Site, or the safety precautions and programs, in connection with the Work; (c) that it has made any examination to ascertain how or for what purposes the Contractor has used the monies previously paid on account of the Contract Sum.
- 73.7 No approval of an Application for Partial Payment, progress payment or any beneficial, partial or entire use or occupancy of the Project by OCFA shall constitute an acceptance of any Work which is not in accordance with the Project Manual; and regardless of approval of an

Application for Partial Payment by OCFA, the Contractor shall remain totally obligated and liable for the performance of the Work in strict compliance with the Project Manual.

73.8 Subject to OCFA's rights to offset or withhold as set forth in these General Conditions, after OCFA has approved an Application for Partial Payment, in whole or in part, it shall make payment of the amount approved to the Contractor as provided in the Project Manual.

73.9 Pursuant to California Public Works Contract Code Section 22300, the Contractor will be entitled to post approved securities with the OCFA or an approved financial institution in order to have the OCFA release funds retained by the OCFA to ensure performance of the Contract. Contractor shall be required to execute an addendum to this Contract together with escrow instructions and any other documents in order to effect this substitution.

#### **74 Right To Occupy - Beneficial Use**

74.1 OCFA reserves the right, prior to Substantial Completion of the entire Project, to use a portion or portions of the Work when Project Manager determines that such portion or portions may be safe for such use provided such use will not unreasonably interfere with the Contractor's orderly progress of the Work. Such use ("beneficial use") shall not be construed as an acceptance of any such Work, or a part of the Work, as substantially complete, nor shall it affect the dates and times when payments shall become due from the OCFA to Contractor, nor shall it prejudice OCFA's rights pursuant to the Contract or any bonds guaranteeing the same. Notwithstanding such occupancy or use, Contractor shall continue to provide insurance, security, maintenance, utilities, and protection to the Work, unless otherwise agreed by the parties in writing.

74.2 At the sole discretion of the Fire Chief, any time after beneficial use and prior to issuance of a certificate of occupancy by the Local Jurisdictions, the Fire Chief may request one or more of the local Jurisdictions to issue a temporary certificate of occupancy for a portion or portions of the Project. Upon the issuance of such temporary certificate of occupancy, the OCFA may occupy such portion or portions of the Project, and such portions shall be deemed to be substantially complete.

74.3 Beneficial Occupancy shall not constitute acceptance by OCFA or Project Manager of the completed Work or any portion thereof, shall not relieve the Contractor of its full responsibility for correcting defective Work and repairing the Work, shall not be deemed to be the equivalent of completion of the Work and shall not entitle the Contractor to any increase in the Contract Sum.

74.4 Anything in this Section 74 to the contrary notwithstanding, OCFA may certify any portion of the Work to be occupied or used hereunder to be Substantially Completed and, upon the Contractor's timely completion or correction of the items on the "punch-list" with respect thereto, accept that portion of the Work.

#### **75 Final Completion and Final Payment.**

75.1 When all permits for the Work have been approved, accepted, or otherwise signed off as complete by the inspectors of the Local Jurisdictions, Contractor shall certify to the Project Manager in writing within ten (10) days that the Work is complete in accordance with the Project Manual and is ready for occupancy. Project Manager, Design Professional, and Fire Chief will make an investigation and inspection of all phases of the Work. If all contractual obligations have not been met, Project Manager shall furnish Contractor a detailed list of all remaining work (the "Punchlist") and Contractor shall commence correction of all items on the Punchlist. A letter of acceptance shall be issued upon completion of all Work specified on the

Punchlist to the satisfaction of the Project Manager. In no case will the letter of acceptance relieve Contractor of any obligations of Contractor that may be outstanding. Within five (5) business days after issuance of a letter of acceptance, Project Manager and the Design Professional shall issue a certificate of final completion. Upon receipt of the certificate of final completion, Contractor shall submit its final application for payment ("Final Application for Payment") which shall set forth all amounts due and remaining unpaid to Contractor and upon approval thereof by the Project Manager and the Design Professional, OCFA shall pay to Contractor the amount due under such Final Application for Payment as provided herein.

75.2 Before OCFA makes the Final Payment to Contractor, all requirements of the Project Manual shall have been fulfilled, including the following:

- (1) Receipt by Project Manager of a complete list of Subcontractors and principal vendors, including addresses, telephone numbers, and names of individuals to contact who are familiar with the Project, including Contractor;
- (2) Receipt by Project Manager of all operation and maintenance manuals, approved by the Design Professional;
- (3) Receipt by OCFA of all releases and written guarantees from all Subcontractors and material suppliers for the Project in a form and content satisfactory to the Project Manager, which Contractor hereby agrees to obtain for, and deliver to, Project Manager prior to completion of the Project;
- (4) Receipt by Project Manager of all "As-Built" records, approved by Project Manager and the Design Professional as specified in the Project Manual;
- (5) Copies of any other warranties or guarantees received from manufacturers, suppliers, or Subcontractors of Contractor or any Subcontractor; and
- (6) Evidence satisfactory to the Project Manager showing that the Contractor has promptly and satisfactorily settled all claims, if any, for services performed and materials furnished in connection with the Work.
- (7) Receipt by Project Manager of all documentation necessary to demonstrate compliance with the Leadership and Environmental Design program requirements.

75.3 Final Payment shall not become due until Contractor submits to Project Manager: (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which OCFA or OCFA's property might in any way be responsible, have been paid or otherwise satisfied; (2) the consent of the surety to Final Payment; and (3) if reasonably required by the Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Project Manager. Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.

75.4 If any Subcontractor or material supplier refuses to furnish a release or waiver required by Project Manager, Contractor may satisfy its obligation with respect to such Subcontractor or material supplier by furnishing a cash bond, assignment of a certificate of deposit, or other liquid security satisfactory to Project Manager to indemnify OCFA against any lien. If any lien remains unsatisfied after all payments are made, Contractor shall refund to OCFA all monies that the OCFA may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

75.5 The acceptance of Final Payment shall constitute a waiver of all claims by Contractor except those previously made in writing and identified by Contractor as unsettled at the time of the Final Application for Payment.

- 75.6 The making of Final Payment shall constitute a waiver of all claims by OCFA except those arising from (1) unsettled claims; (2) faulty or defective Work appearing after Final Completion of the Work; (3) failure of the Work to comply with the requirements of the Project Manual; (4) terms of any special warranties required by the Project Manual; (5) "Punchlist" items not yet completed by the Contractor; (6) discrepancies noted in subsequent audits performed by OCFA or its agents within one (1) year following Final Payment; or (7) any claims identified by Project Manager as unsettled prior to making of Final Payment.
- 75.7 Final Payment shall not relieve Contractor of its warranty and indemnification obligations pursuant to the Project Manual, which shall survive such payment.
- 75.8 Contractor shall keep and present within fifteen (15) days after request by OCFA or its agents, in a form reasonably approved by the Project Manager, a final itemized accounting of all expenditures made in connection with the Work together with appropriate suplf any Subcontractor or Sub-subcontractor refuses to furnish any release, satisfaction or waiver of lien required at any time by OCFA under Paragraphs 9.1., or files a claim of lien against OCFA's property, the Contractor shall, if requested by Project Manager and at the Contractor's expense, furnish and record a Mechanic's Lien Release Bond (separate and apart from any other bond provided by the Contractor hereunder) that is in full compliance with the requirements of the then current provisions of Section 3143 of the California Civil Code. If any Subcontractor or Sub- subcontractor serves a Stop Notice (bonded or otherwise) on OCFA, Contractor shall, if requested by OCFA and at Contractor's expense, furnish a Stop Notice Release Bond (separate and apart from any other bond provided by the Contractor hereunder) that is in full compliance with the then current provisions of Section 3171 of the California Civil Code. The Contractor authorizes OCFA, and shall cause its Subcontractors and Sub-subcontractors to authorize OCFA, to check directly with any suppliers of labor and material with respect to any item chargeable to OCFA's property, to confirm balances due and to obtain sworn statements and waivers of lien, all if OCFA so elects. If any lien remains unsatisfied after all payments are made to the Contractor, the Contractor shall reimburse OCFA on account of all monies that the latter may be compelled to pay in discharging such lien, including all costs and attorneys' fees.

## **76 Surety Bonds.**

Contractor shall, upon entering into performance of this Agreement, furnish a bond in the amount of one hundred percent (100%) of the Contract price bid, to guarantee the faithful performance of the work, and an additional bond in the amount of one hundred percent (100%) of the Contract price bid to guarantee payment of all claims for labor and materials furnished. The bonds required pursuant to this Section 76 shall be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety and shall have and maintain throughout the life of the Project, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide. This Contract shall not become effective until such bonds are supplied to and approved by the OCFA.

## **77 Risk And Indemnification**

- 77.1 Indemnification: To the fullest extent permitted by law, Contractor shall indemnify, defend (at Contractor's sole cost and expense and with legal counsel approved by OCFA, which approval shall not be unreasonably withheld), protect and hold harmless OCFA and all of OCFA's officers, directors, employees, consultants, agents, successors and assigns (collectively the "Indemnified Parties"), from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other

professional, expert or consultants' fees and costs and OCFA's general and administrative expenses) of every kind and nature whatsoever (individually, a "Claim"; collectively, "Claims") which may arise from or in any manner related (directly or indirectly) to any work performed or services provided under this Agreement (including, without limitation, the negligent and/or willful acts, errors and/or omissions of Contractor, its principals, officers, agents, employees, Contractors, suppliers, consultants, subconsultants, subcontractors, anyone employed directly or indirectly by any of them or for whose acts they may be liable or any or all of them) regardless of any active or passive negligence or strict liability of an Indemnified Party. Contractor understands and acknowledges that the indemnification obligation hereunder is intended to constitute a "Type I" indemnity under California law and extends to and includes Claims arising from the active or passive negligence of Indemnified Parties. Notwithstanding the foregoing, nothing herein shall be construed to require Contractor to indemnify the Indemnified Parties from any Claim arising from the sole negligence or willful misconduct of the Indemnified Parties.

- 77.2 **Duty to Defend**: The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend exists regardless of any ultimate liability of Contractor. Such defense obligation shall arise immediately upon presentation of a Claim by any party and written notice of such Claim being provided to Contractor. Payment to Contractor by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. Contractor's indemnification obligation hereunder shall survive the expiration or earlier termination of this Agreement until such time as action against the Indemnified Parties for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations or statute of repose. Contractor's liability for indemnification hereunder is in addition to any liability Contractor may have to OCFA for a breach by Contractor of any of the provisions of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Contractor's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party shall not be employed in the interpretation of this Agreement.

## **78 Insurance.**

### **78.1 Compliance with Insurance Requirements.**

- 78.1.1 As a condition precedent to the effectiveness of this Agreement, and without limiting the indemnity provisions set forth in this Agreement, Contractor shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section 78. Contractor shall not commence any work or services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section 78. If Contractor's existing insurance policies do not meet the insurance requirements set forth herein, Contractor agrees to amend, supplement or endorse the policies to do so.
- 78.1.2 The amount of insurance coverage available to pay claims under each policy required hereunder shall be the higher of (a) the minimum limits required below, or (b) the actual limits established in each policy. Thus, by way of example only, if the minimum policy limit is \$2 million per occurrence but insurance actually carried by the Contractor or subcontractor is \$4 million per occurrence, the coverage required to be available for claims

under that policy would be \$4 million. (Nothing herein requires the Contractor to purchase insurance at limits greater than the minimum limits established below.)

## **78.2 Types of Insurance Required.**

Contractor shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

**78.2.1 Commercial General Liability Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Commercial General Liability Insurance (Insurance Services Office form CG 00 01) written on an occurrence basis with limits of at least five million dollars (\$5,000,000.00) per occurrence, five million dollars (\$5,000,000.00) in the general aggregate, and five million dollars (\$5,000,000.00) for completed operations aggregate. Defense costs shall be paid in addition to (and shall not reduce) the limits. The policy shall contain no endorsements or provisions limiting coverage for: (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) any other exclusion contrary to the Agreement.

**78.2.2 Automobile Liability Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Automobile Liability Insurance (Insurance Services Office form CA 001) written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) combined limit for each occurrence covering bodily injury and property damage. The policy shall specifically include coverage for owned, non-owned, leased, and hired automobiles.

**78.2.3 Workers' Compensation Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Workers' Compensation Insurance in at least the minimum statutory amounts, and in compliance with all other statutory requirements, as required by the State of California. Contractor hereby waives, and agrees to obtain endorsements from its workers' compensation insurer waiving, all subrogation rights against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, and to require each of its subcontractors, if any, to waive the same and to obtain endorsements waiving the same subrogation rights under their workers' compensation insurance policies. Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Employer's Liability Insurance written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) per incident for bodily injury, disease or other covered claim.

**78.2.4 Builders Risk (Course of Construction) Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a Builders Risk (Course of Construction) Insurance policy with limits of at least five million dollars (\$5,000,000.00). [Covered causes of loss shall include, or be endorsed to include, earthquake, flooding and other acts of God.] Contractor and each subcontractor agree to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers. The Builders Risk policy shall be endorsed to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers.

## **78.3 Acceptability of Insurers.**

Insurance required by this section 78 shall be issued by a licensed company authorized to transact business in the state by the Department of Insurance for the State of California with a current rating

of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI), by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Contractor agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA. Contractor shall immediately substitute any insurer whose A.M. Best rating drops below the levels specified herein.

#### **78.4 Insurance Endorsements.**

Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Contractor shall provide endorsements issued by the insurance company on forms approved by the OCFA to add the following provisions to the insurance policies:

- 78.4.1 Additional Insured: The OCFA and its officials, officers, employees, agents, representatives, attorneys and volunteers shall be additional insureds with regard to liability and defense of suits and claims arising out of the performance of the Agreement; and
- 78.4.2 Additional Insured Endorsements: Additional insured endorsements shall not: (1) be restricted to "ongoing operations", (2) exclude "contractual liability", (3) restrict coverage to "sole" liability of Contractor, or (4) contain any other exclusions contrary to the Agreement. The coverage shall contain no special limitations on the scope of protection afforded to additional insureds; and
- 78.4.3 Primary and Non-Contributing Insurance: All policies of Commercial General Liability Insurance and Automobile Liability Insurance shall be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, shall not contribute with this primary insurance. Policies shall contain, or be endorsed to contain, such provisions.
- 78.4.4 Waiver of Subrogation: All policies of Commercial General Liability, Automobile Liability Insurance and Worker's Compensation shall contain or be endorsed to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, or shall specifically allow Contractor or others providing insurance evidence in compliance with the requirements set forth in this section 78 to waive their right to recovery prior to a loss. Contractor hereby agrees to waive its own right of recovery against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, and Contractor hereby agrees to obtain similar written express waivers and insurance clauses from each of its subcontractors prior to commencement of work by the subcontractor.
- 78.4.5 Notice: Each policy of insurance required by this section 78 shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice by First Class U.S. Mail, postage-prepaid, has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Contractor's failure to pay the insurance premium, the notice provided to OCFA shall be by ten (10) days prior written notice. (Note: an endorsement that fails to state that the insurance company will provide the notice required by this subsection (e.g., "will endeavor to" or similar non-

committal phrases) does not comply with the requirements of this subsection. Similarly, Contractor's offer to provide the required notice in lieu of the insurance company doing so will not comply with this subsection. It is the Contractor's obligation to ensure that its insurance company(ies) will provide all policy endorsements required under this Contract.)

78.4.2 For all policies of Commercial General Liability Insurance, Contractor shall provide endorsements for completed operations to effectuate this requirement.

#### **78.5. Deductibles and Self-Insured Retentions.**

Any deductible or self-insured retention must be approved in writing by the OCFA in advance and shall protect the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention. Contractor shall be solely responsible for the payment, and if required by the insurer the advancement, of any and all deductible amounts and self-insured retentions.

#### **78.6. Evidence of Coverage.**

Within seven (7) calendar days after the date of the Notice of Apparent Low Bidder, Contractor shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required by this section 78. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. The certificates of insurance and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. (ACORD form Certificates of insurance will not be accepted in lieu of approved endorsements.) At least fifteen (15) days prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or is being provided through another insurance company or companies. Contractor shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

#### **78.7 Requirements Not Limiting.**

Requirement of specific coverage or minimum limits contained in this section 78 are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. Nothing in this section 78 shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Contractor may be held responsible for payments of damages to persons or property.

#### **78.8 Enforcement of Agreement (Non-Estoppel).**

Contractor acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Contractor of any non-compliance with any of the insurance requirements set forth in this section 78 imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

**78.9 Insurance for Subcontractors.**

Contractor shall either: (1) include all subcontractors engaged in any work or services for Contractor relating to this Agreement as additional named insureds under the Contractor's insurance policies; or (2) Contractor shall be responsible for causing its subcontractors to procure and maintain the same types and amounts of insurance in compliance with the terms of the insurance requirements set forth in this section 78 (except Builders Risk (Course of Construction) Insurance), including but not limited to adding the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, as additional insureds to their respective policies. All policies of Commercial General Liability Insurance and Automobile Liability Insurance provided by Contractor's subcontractors performing any work or services related to this Agreement shall be endorsed to name the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, as additional insureds. Contractor shall not allow any subcontractor to commence any work or services relating to this Agreement unless and until the Contractor has received confirmation that the subcontractor has secured all required insurance. Upon request of OCFA, Contractor shall deliver to OCFA all certificates of insurance and endorsements required from subcontractors. (Note: Contractor's duty to obtain all required insurance for subcontractors required under this Agreement applies whether or not OCFA requests delivery of evidence of such coverage.)

**78.10. Insurance for Large Equipment Suppliers**

Suppliers of large equipment that will be installed as part of the Project must have and maintain General Liability Insurance and Automobile Insurance with all endorsements required hereinabove unless the Contractor or Subcontractor that will install the large equipment maintains General Liability Insurance and Automobile Liability Insurance that is endorsed to name the large equipment supplier as an additional named insured and such endorsement is provided to OCFA prior to delivery of the large equipment.

**78.11 Other Insurance Requirements.**

The following terms and conditions shall apply to the insurance policies required of Contractor pursuant to this Agreement:

78.11.1 Contractor shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled or suspended, (2) the limits of any of the insurance coverage types or amounts required herein are reduced by the insurer or depleted by other claims, or (3) the deductible or self-insured retention is increased.

78.11.2 All insurance coverage and limits provided by Contractor and available or applicable to this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

78.11.3 None of the insurance coverages required herein will be in compliance with the requirements of this section 78 if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

78.11.4 Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay commencement of the Project. It is

Contractor's obligation to ensure timely compliance with all insurance submittal requirements as provided herein.

78.11.5 Contractor agrees to ensure that subcontractors, if any, and any other parties involved with the Project who are brought onto or involved in the Project by Contractor, have, or are provided by Contractor's insurer, the same minimum insurance coverage required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section 78. Contractor agrees that upon request, all agreements with subcontractors and others engaged in the Project will be submitted to the OCFA for review. Claims for which coverage is required but not provided due to Contractor's failure to comply with this section 78 (e.g., allowing subcontractors to proceed with disallowed limitations on their insurance coverage, or failing to require subcontractors to provide required insurance coverage or endorsements) will result in retention of payments in amounts necessary to cover the anticipated costs associated with defending and paying the claims.

78.11.6 Contractor agrees to provide immediate written notice to OCFA of any claim, demand or loss against Contractor arising out of the work or services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to pay claims, demands or losses arising out of this Agreement.

#### **79. Contractor's Liability; OCFA Not Liable; Claims Resolution**

79.1 Contractor's liability. The Contractor shall be responsible for any loss or damage that may occur to:

- The work or any part thereof;
- Any of the materials or other things used or employed in performing the work;
- Any injury to any person or persons, either workers or the public;
- Any damage to property resulting from any cause which might have been prevented by the Contractor, including defects or obstructions at any time before completion of the work and its final acceptance.

79.2. OCFA ordered precautions. If, in the opinion of the Engineer, the precautions taken by Contractor are not safe or adequate at any time during the term of the Contract, the Engineer may order the Contractor to take further precautions, and if the Contractor shall fail to do so, the Engineer may order the work done by others and charge the Contractor for the cost thereof, such cost to be deducted from any moneys due or becoming due the Contractor. Failure of the Engineer to order such additional precautions, however, shall not relieve the Contractor from his full responsibility for public safety.

79.3 OCFA not liable. The OCFA shall not be answerable or accountable in any manner, for any loss or damage that may occur to any of the following from any cause which might have been prevented by the Contractor:

- The work or any part thereof;
- Any of the materials or other things used or employed in performing the work;
- Any injury to any person or persons, either workers or the public;
- Any damage to property.

#### 79.4 Claims Resolution.

79.4.1. From time to time during the period of this contract, the OCFA and/or the Contractor may be served with third-party claims, as a result of alleged conduct by Contractor. The following procedures shall be followed by OCFA and Contractor:

For claims received by Contractor:

(1) Contractor shall provide OCFA on a monthly basis details regarding any claim for damages to persons or property, including, date claim made, date of alleged damages, type of damages, alleged cause of damages and, as claims are resolved, details regarding Contractor's denial or payment of such claim and the reasons for denial or payment.

(2) Contractor shall resolve or deny any claim received within thirty (30) days of receipt. If Contractor is unable to resolve a claim within the thirty (30) days set forth above, it shall, prior to the expiration of the thirty (30) days request and extension in writing from the OCFA.

For claims received by OCFA:

(1) OCFA shall process any claims received pursuant to the California Government Claims Act.

(2) If after investigation of the claim, the OCFA determines the Contractor is liable under this Contract, OCFA shall tender the claim to the Contractor for proper handling and resolution.

79.5. Retention of Claimed Damages by OCFA. The OCFA may retain so much of the money due the Contractor under and by virtue of the Contract as shall be considered necessary by the OCFA until disposition has been made of such suits or claims for damages aforesaid.

#### 80 Termination

80.1 The performance of work under the Contract Documents may be terminated in whole, or from time to time in part, whenever the Board of Directors shall determine that such termination is in the best interest of the OCFA, provided that the Contractor is given (1) Not less than ten (10) calendar days' written notice (delivered by email, followed by overnight delivery with proof of delivery) of intent to terminate; (2) the extent to which performance of work under the Contract Documents is terminated; (3) the date upon which such termination becomes effective; and (4) An opportunity for consultation with the terminating party prior to the effective date of the termination.

80.2 This Contract may be terminated, or the right of the Contractor to complete the Project may be terminated, without liability or damage, when in the OCFA's opinion, the Contractor is not complying with the Contract requirements in good faith, has become insolvent, or has assigned or subcontracted any part of the Work without the OCFA's consent. In the event of such termination, the Contractor will be paid the actual amount due based upon the quantity of work completed at the time of termination, less damages caused to the OCFA by acts of the Contractor causing the termination. The Contractor, in having tendered a bid, shall be deemed to have waived any and all claims for damages because of termination of the Contract or the right of the Contractor to complete the Project for any cause stated in this Section 80.

- 80.3 If termination is effected by the OCFA, an equitable adjustment in the price provided for in this Contract shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the Contractor at the time of termination may be adjusted to cover any additional costs to the OCFA because of the Contractor's default. The equitable adjustment for any termination shall provide for payment to the Contractor for services rendered and expenses incurred in accordance with Section 8 of the California, Department of Transportation Standard Specifications.
- 80.4 After receipt of a Notice of Termination, and except as otherwise directed by the Board of Directors, the Contractor shall:
- (1) Stop work under the Contract Documents on the date and to the extent specified in the Notice of Termination; and
  - (2) Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the work under the Contract Documents as is not terminated; and
  - (3) Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination; and
  - (4) Assign to the OCFA, all of the right, title and interests of the Contractor under the orders and subcontracts so terminated, in which case the OCFA shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts; and
  - (5) Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, subject to the approval of the Board of Directors; and
  - (6) Complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and
  - (7) Deliver or otherwise make available to the OCFA all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the Contractor in performing this Contract whether completed or in process; and
  - (8) Take such action as may be necessary, or as the Project Manager may direct, for the protection and preservation of the property related to the Contract Documents which is in the possession of the Contractor and in which the OCFA has, or may acquire, interest.
- 80.5 After receipt of a Notice of Termination, the Contractor shall submit to the Project Manager a verified termination claim. Such claim shall be submitted promptly but in no event later than one year from the effective date of termination, unless one or more extensions in writing are granted by the Board of Directors upon request of the Contractor made in writing within such one-year period or authorized extension thereof.
- 80.6 If any dispute concerning a question of fact arising under the terms of this Contract is not disposed of within a reasonable period of time by Contractor and Project Manager, such matter shall be brought to the attention of the OCFA via written notice of unresolved dispute(s). If agreement cannot be reached after a good faith effort to resolve the dispute, either party may assert its other rights and remedies within this Contract or within a court of competent jurisdiction. The Parties agree that, in the event of a dispute notwithstanding, they will continue without delay to carry out all their responsibilities under this Contract. The Contractor and the OCFA Board of Directors may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this Section 80, which amount or amounts may include a reasonable allowance for profit on work done; provided, that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not

terminated. The Contract Documents shall be amended accordingly, and the Contractor shall be paid the agreed amount.

### **81 Patent Infringement**

- 81.1 The Contractor shall report to the Project Manager, promptly and in reasonable detail, each notice or claim of patent infringement based on the performance of the Contract Documents of which the Contractor has knowledge.
- 81.2 In the event of any suit against the OCFA, or any claim against the OCFA made before suit has been instituted, on account of any alleged patent infringement arising out of the performance of the obligations under the Contract Documents, or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall, at Contractor's own expense, furnish to the OCFA, upon request, all evidence and information in possession of the Contractor pertaining to such suit or claim. The Contractor further agrees to indemnify and hold harmless the OCFA against any and all claims or lawsuits based upon such patent infringement, to defend such suits, and to pay any judgment rendered against OCFA, its employees, or the Board of Directors.

### **82 No Waiver By OCFA**

The failure of the OCFA in any one or more instances to insist upon strict performance of any of the terms of the Contract Documents or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion.

### **83 Disputes**

- 83.1 In the event of a dispute between the parties as to performance of the work, the interpretation of the Contract Documents, or payment or nonpayment for work performed, the parties shall attempt to resolve the dispute. Pending resolution of the dispute, the Contractor shall continue the work diligently to completion as directed by Project Manager. If the dispute is not resolved, the Contractor agrees Contractor will neither rescind the Contract Documents nor stop the progress of the work.
- 83.2 With respect to any "claim" as that term is defined in Public Contract Code section 9204, Contractor shall submit such claim in accordance with Section 91 hereinbelow.

### **84 Attorneys' Fees**

If any action at law or in equity is necessary to enforce or interpret the terms of this Contract, each party shall be responsible for their respective costs, including attorneys' fees. The prevailing party shall not be entitled to recover its attorneys' fees or related costs. Nevertheless, if any action is brought against the Contractor or any Subcontractor to enforce a Stop Notice or Notice to Withhold, which names the OCFA as a party to said action, the OCFA shall be entitled to reasonable attorneys' fees, costs and necessary disbursements arising out of the defense of such action by the OCFA. The OCFA shall be entitled to deduct its costs for any Stop Notice filed, whether court action is involved or not.

### **85 Contractor's Employees' Compensation**

- 85.1 General Prevailing Rate: OCFA has been advised by the State of California Director of Industrial Relations of the Director's of the general prevailing rate of per diem wages and the general prevailing rate for legal holiday and overtime work in the locality in which the work is to be performed for each craft or type of work needed to execute this Contract, and copies of the same are on file in the Office of the Engineer of OCFA. The Contractor agrees that not

less than said prevailing rates shall be paid to workers employed on this public works contract as required by Labor Code Section 1774 of the State of California.

- 85.2 Forfeiture For Violation: Contractor shall, as a penalty to the OCFA, forfeit Fifty Dollars (\$50.00) for each calendar day or portion thereof for each worker paid (either by the Contractor or any subcontractor under it) less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Sections 1770-1780 of the California Labor Code for the work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California.
- 85.3 Apprentices: Sections 1777.5, 1777.6 and 1777.7 of the Labor Code of the State of California, regarding the employment of apprentices is applicable to this Contract and the contractor shall comply therewith if the prime contract involves Thirty Thousand Dollars [\$30,000.00] or more or twenty (20) working days, or more; or if contracts of specialty contractors not bidding for work through the general or prime contractor are Two Thousand Dollars [\$2,000.00] or more or Five (5) working days or more. Information relative to apprenticeship standards, contributions, wage schedules and other requirements may be obtained from the State Director of Industrial Relations or from the Division of Apprenticeship Standards.
- 85.4 Workday: In the performance of this Contract, not more than eight (8) hours shall constitute a day's work, and Contractor shall not require more than eight (8) hours of labor in a day from any person employed by him hereunder except as provided in Section 11.4.2 above. Contractor shall conform to Article 3, Chapter 1, Part 7 (Sections 1810 et seq.) of the Labor Code of the State of California and shall forfeit to the OCFA as a penalty, the sum of twenty-five Dollars (\$25.00) for each worker employed in the execution of this Contract by Contractor or any Subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one week in violation of said Article. Contractor shall keep an accurate record showing the name and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Project.
- 85.5 Record of Wages; Inspection: The Contractor and each subcontractor performing any portion of the work under the Contract Documents shall keep an accurate record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor in connection with the work. Said payroll records shall be certified and shall be available for inspection at the principal office of the Contractor on the basis set forth in Labor Code Section 1776. The Contractor shall file a certified copy of said payroll records with the OCFA within ten days after receipt of a written request therefor from Project Manager or otherwise from the OCFA. The Contractor shall inform the OCFA of the location of said payroll records, including the street address, City and State, and shall, within five working days, provide a notice of change of location and address of said payroll records. It shall be the responsibility of the Contractor to ensure the compliance with the provisions of this Section 85 and the provisions of Labor Code Section 1776. In the event of noncompliance with the requirements of this Section 85 or the requirements of Labor Code Section 1776, the Contractor shall have ten days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply. Should noncompliance exist after said ten-day period, the Contractor shall, as a penalty to the OCFA, forfeit Twenty-five Dollars (\$25) for each calendar day, or portion thereof, for each worker to whom the noncompliance pertains until strict compliance is effectuated. The Contractor acknowledges that, without limitation as to other remedies of enforcement available to the OCFA, upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the California Department of Industrial Relations, such penalties shall be withheld from progress payments then due the Contractor.

- 85.6 Pursuant to California Labor Code Section 1771.4, Contractor's services are subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall post job site notices as prescribed by DIR regulations and furnish the records specified in California Labor Code Section 1776 directly to the Labor Commissioner in the manner prescribed by California Labor Code Section 1771.4(a)(3) and (c)(2).

## **86 SAFETY & HEALTH**

- 86.1 The General Contractor (the Contractor) shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all precautions and follow all procedures for the safety of, and shall provide all protection to prevent injury to, all persons involved in any way in the Work and all other persons, including, without limitation, the employees, agents, guests, visitors, invitees and licensees of OCFA who may be involved. These precautions shall include, but in no event be limited to the:

- (1) Provisions of Local, State and Federal Regulations.
- (2) Posting of danger signs and personal notification to all affected persons of the existence of a hazard, of whatever nature.
- (3) Furnishing and maintaining of necessary traffic control barricades and flagman services.
- (4) Use or storage of required explosives or other hazardous materials only under the supervision of qualified personnel.
- (5) Maintenance of adequate quantities of operable fire protection equipment at the Work Site, as required by Local and /or State regulations.

- 86.2 The Contractor shall set forth in writing its site specific safety precautions and programs in connection with the Work, including an Anti-Substance Abuse Program which meets or exceeds any and all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to the:

- (1) California Occupational Safety and Health Act of 1973, as amended, and rules and regulations now or hereafter in effect pursuant to said Act.
- (2) California Code of Regulations, Title 8, as amended.
- (3) The Labor Code of the State of California, as amended.
- (4) Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act.
- (5) Code of Federal Regulations, Title 29, as amended.
- (6) The Drug-Free Workplace Act of 1988.
- (7) In the event of conflicting requirements, the more stringent shall govern and if requested by OCFA, submit the same to OCFA for review. OCFA may, but shall not be obligated to, make suggestions and recommendations to the Contractor. OCFA shall review and approve the Contractor's Site Specific Program.

- 86.3 All work, whether performed by the Contractor or its Subcontractors, of all tiers or anyone directly or indirectly employed by any of them, and all equipment, machinery, materials, tools and like items incorporated or used in the Work, shall be compliance with and conform to:

- (1) All applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act, and California Code of Regulations, Title 8, as amended; and,

- (2) All codes, rules, regulations and requirements of OCFA and its insurance carriers relating thereto. In the event of conflicting requirements, the more stringent shall govern.
- 86.4 The Contractor shall designate a responsible and qualified member of its organization at the Work Site who has the authority to enforce the Contractor's Safety and Anti-Substance Abuse Programs, to assure compliance with Paragraph 10.1 and to prevent accidents.
- 86.5 The Contractor shall have a safety representative. The Contractor's safety representative will have:
- (1) The authority to stop work when safety problems are identified.
  - (2) The authority to implement corrective actions.
  - (3) Extensive training in safety and loss control practices regarding the Contractor's type of work.
  - (4) Certification in the OSHA Construction Outreach 10/30 Hour Program.
  - (5) Certification in first aid and CPR.
- 86.6 The Contractor shall require its Subcontractors of all tiers to designate a competent and responsible safety representative to assist the Contractor's representative in the performance of his or her duties.
- 86.7 Should the Contractor fail to provide a safe work environment in accordance with the provisions in 10.1.1, OCFA or Project Manager shall have the right, but not the obligation, to suspend Work in the unsafe area, as specified in 10.6. All costs of any nature resulting from the suspension, by whomsoever incurred, shall be paid by the Contractor.
- 86.8 After a Contractor has been awarded the construction contract for the Project, it will be required to attend a pre-construction safety meeting. The purpose of the meeting is to review the Project's Safety Program and requirements. At this time, specific safety concerns related to the Contractor's work will be discussed.
- 86.9 If deemed necessary by the Project Manager or Project Safety Coordinator, or other OCFA representative, a written Job Safety Analysis (JSA) will be required of the Contractor. The JSA will be required for frequency and severity exposures such as steel erection, deep excavations, spray painting, crane handling of large/expensive equipment, etc. This is to ensure that appropriate controls are established prior to work beginning.
- 86.10 Workplace violence (Type III), verbal intimidation or threats to the Project Manager, OCFA or designee will result in immediate removal from the Project. Contractor shall develop and implement a workplace violence policy and procedure.
- 86.11 The Contractor shall provide, or cause to be provided, each worker on the Site the proper safety equipment for the duties being performed by that worker and will not permit any worker on the Site who fails or refuses to use the same. OCFA and/or Project Manager shall have the right, but not the obligation, to order the Contractor to send a worker off the Site for the day or to require the contractor to not allow the worker any further work on OCFA's site for his or her failure to comply with safety practices, with which order the Contractor shall promptly comply.
- 86.12 **Safety Indemnification.** The Contractor shall defend, indemnify, and hold the Project Manager, OCFA, and their respective officers, directors, agents, employees, and assigns harmless from and against any and all liability, public or private, penalties, contractual or otherwise, losses, damages, costs, attorneys' fees, expenses, causes of action, claims or judgments resulting either in whole or in part from any failure of the Contractor, or its

Subcontractors, of all tiers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, to comply with provisions of the Project Manual, including but not limited to all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, all Cal/OSHA laws and regulations and the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to thereto. The Contractor shall not be relieved of its responsibilities under this Subsection should OCFA act or fail to act pursuant to its rights hereunder, nor shall OCFA thereby assume, nor be deemed to have assumed, any responsibilities otherwise imposed on the Contractor by this Contract, by virtue of providing OCFA's Safety Policies & Procedures, or any other manner whatsoever.

86.12.1 The Contractor shall not raise a defense as to its obligation to indemnify under Subsection 86.12 above any contributing negligence of any of those indemnified hereunder, its being understood and agreed that no such contributing negligence shall relieve the Contractor from its liability to so indemnify nor entitle the Contractor to any contribution, either directly or indirectly, by those indemnified hereunder.

86.12.2 In any and all claims against those indemnified hereunder by any employee of the Contractor or its Subcontractors of all tiers, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Section 86.12 shall not be limited in any way to any limit on the amount or type of damage, compensation or benefits payable by or for the Contractor or its Subcontractors of any tiers under any Worker's Compensation Acts, Disability Benefit Acts or other Employee Benefit Acts.

86.13 In connection with the performance of this contract, OCFA shall have the authority to enter the worksite at any time for the purpose of identifying the existence of conditions, either actual or threatened, that may present a danger or hazard to any or all employees. Contractor agrees that OCFA, in its sole authority and discretion, may order the immediate abatement of any and all conditions that may present an actual or threatened danger or hazard to any and all employees at the worksite. Contractor acknowledges that provisions of Section 6400 of the California Labor Code, which requires that employers shall furnish employment and a place of employment that is safe and healthful for all employees working therein. In the event OCFA identifies the existence of any condition that presents an actual or threatened danger or hazard to any or all employees at the worksite, OCFA is hereby authorized to order the immediate abatement of that actual or threatened condition pursuant to this Section 86. OCFA may also, at its sole authority and discretion, issue an immediate stop work order to Contractor to ensure that no employee working at the worksite is exposed to a dangerous or hazardous condition. Any stop work order issued by OCFA to Contractor in accordance with the provisions of this Section 86, shall not give rise to any claim or cause of action for delay damages by Contractor or Contractor's agents or subcontractors against OCFA.

## **87 Non-Discrimination**

87.1 Contractor covenants that, by and for itself, successors, and assigns, including its Subcontractors and suppliers, that there shall be no discrimination against or segregation of, any person or group of persons on account of race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry in the performance of this Contract. Contractor shall take steps to ensure that applicants for any job and that employees are treated without regard to their race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry in full compliance with applicable federal, state, and local laws and regulations.

- 87.2 Contractor shall not engage in, nor permit its agents, including its Subcontractors and suppliers, to engage in discrimination in employment of persons or provision of services or supplies, on the grounds of race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry.
- 87.3 Contractor, and Contractor's Subcontractors and suppliers, shall employ fair employment practices with regard to all employees and all applicants for employment and shall act in accordance with all applicable federal, state, and local laws and regulations relating to such fair employment practices. In furtherance of such obligation, Contractor agrees that Contractor, Subcontractors, and suppliers shall not discriminate in employment and/or provision of services under this Contract and all employment practices shall be without regard to a person's race, color, creed, religion, gender, national origin, age, ancestry, physical handicap, medical condition, marital status, all in accordance with applicable federal, state, and local laws or regulations. Fair employment practices shall include, but not be limited to, employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other form of compensation and selection for training including apprenticeship.
- 87.4 In the performance of the terms of the Contract Documents, Contractor agrees that Contractor will not engage in nor permit such subcontractors as Contractor may employ to engage in discrimination against any employee or applicant for employment on the basis of race, sex, color, religion, ancestry, national origin, marital status, age or as an otherwise qualified handicapped individual. This prohibition shall pertain to employment, upgrading, demotion, or transfer, recruitment advertising, layoff or termination, rates of pay and other forms of compensation, selection for training, including apprenticeship, and any other action or inaction pertaining to employment matters.

## **88 Assignment of Antitrust Actions**

In accordance with Public Contract Code Section 7103.5, by entering into the Contract Documents or into a subcontract to supply goods, services, or materials pursuant to the Contract Documents, the Contractor, or subcontractor, offers and agrees to assign to the OCFA all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract Documents or the subcontract. This assignment shall be made and become effective at the time the OCFA tenders final payment to the Contractor, without further acknowledgment by the parties. The contractor shall cause to be inserted in any such subcontract stipulations to effectuate this Section 88 and the provision of Public Contract Code Section 7103.5.

## **89 Time of Commencement; Time Is of the Essence**

- 89.1 **Commencement:** Contractor agrees to commence the Project within ten (10) calendar days from the date the OCFA's Board approves this Contract, and Contractor shall diligently prosecute the work to Substantial Completion of the Milestones as identified in the Contractor's Construction Schedule and Substantial Completion of the Project no later than the Scheduled Completion Date, excluding modifications for delays caused or authorized by the OCFA as set forth in Section 71.5.
- 89.2 **Construction Schedule:** Within 30 days of the Award of the Contract, Contractor shall furnish to the Project Manager one reproducible, three prints, and an electronic or digital copy in a format approved by the Project Manager of the Contractor's Construction Schedule. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth

the dates that each item will be delivered. The schedule shall establish the order of work which minimizes disruption of existing travel lanes. Upon submission by Contractor, and approval by the Project Manager, the Contractor's Construction Schedule shall be attached to Project Manual as an Exhibit and shall be deemed the baseline schedule. The Contractor's Construction Schedule shall identify and specify scheduling for the Work based on the critical path method (or other scheduling method acceptable to the Project Manager) and updating thereof, and shall provide other schedules that would further the efficient completion of the Project, including the Work and the Related Work in the most expeditious and economical manner. The Contractor's Construction Schedule shall depict in detail the sequence and timing of all activities of the Work and Related Work, including, without limitation, commencement and Completion Dates of Milestones and for all other significant portions of the Work and Related Work. The Contractor's Construction Schedule shall be updated at least monthly, except that the Scheduled Completion Date shall not be changed or modified unless otherwise approved by the Project Manager pursuant to the terms of this Contract.

**89.3 Progress Reports:** Concurrently with its submission of Applications for Payment, Contractor shall provide the Project Manager with a report (1) detailing the actual progress of the Work and Related Work as of the date of such report; (2) stating any discrepancies between the actual progress of the Work and Related Work; (3) identifying the progress anticipated by the Contractor's Construction Schedule as of the date of such reports; and (4) stating a recovery schedule to place the Work and Related Work back on schedule, at no cost to the OCFA. The Contractor's Construction Schedule shall include Milestones for each aspect of the Work and the timing for completion of Related Work that could affect completion of the Work by the date listed in the Contractor's Construction Schedule.

**89.4 Acceleration.**

**89.4.1** The OCFA reserves the right to accelerate the work of the Contract at any time during its performance. In the event the OCFA directs acceleration, such directive will be given to the Contractor in writing. The Contractor shall keep cost and other Project records related to the acceleration directive separately from the normal Project cost records and shall provide a written record of acceleration costs to the OCFA on a daily basis.

**89.4.2** In the event the Contractor believes that some action or inaction on the part of the OCFA constitutes an acceleration directive, the Contractor shall immediately notify the OCFA in writing that the Contractor considers the actions or inactions an acceleration directive. The Contractor shall not accelerate their work efforts until the OCFA responds to the written notification. If acceleration is then directed or required by the OCFA, all cost records referred to in the previous paragraph shall be maintained by the Contractor and provided to the OCFA on a daily basis.

**89.4.3** In order to recover additional costs due to acceleration, the Contractor must document that additional expenses were incurred and paid by the Contractor. Labor costs recoverable will only be overtime or shift premium costs or the cost of additional laborers brought to the site to accomplish the accelerated work effort. Equipment costs recoverable will only be the cost of added equipment mobilized to the site to accomplish the accelerated work effort.

**89.5 TIME IS THE ESSENCE OF THIS CONTRACT:** NOTWITHSTANDING OCFA'S APPROVAL OF ANY UPDATED CONTRACTOR'S CONSTRUCTION SCHEDULE, THE SCHEDULED COMPLETION DATE SHALL BE STRICTLY ADHERED TO DURING THE TERM OF THIS

CONTRACT. THE SCHEDULED COMPLETION DATE MAY ONLY BE CHANGED AS PROVIDED IN THE CONSTRUCTION CONTRACT.

- 89.6 **Ongoing Responsibility of Contractor:** As required by the Project Manual, Contractor shall prepare and obtain approval of all shop drawings, submittals, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with the Project Manual and Contractor's Construction Schedule. Contractor shall coordinate the Work with the Related Work through the Project Manager, in a manner that will facilitate the efficient completion of the Project in accordance with the Project Manual.
- 89.7 **Control of the Site and Order of Work:** Contractor shall have control of the Site and shall have the right to decide the time or order in which the various portions of the work shall be constructed or installed consistent with the Contractor's Construction Schedule and shall establish the priority of the work of Subcontractors of the Work and the Related Work, and, in general, all matters representing the timely and orderly completion of the Project.
- 89.8 **Cooperation:** Notwithstanding the Scheduled Completion Date, Contractor will cooperate with the OCFA and the OCFA's separate Contractors, consultants, and employees and Contractor agrees to provide for and coordinate access to the Project prior to the Scheduled Completion Date.
- 89.9 **Contractor's Risk Of Non-Performance:** IT IS SPECIFICALLY AGREED THAT CONTRACTOR ASSUMES THE RISK OF NONPERFORMANCE, LATE PERFORMANCE, AND NONCOMPLIANCE WITH THE REQUIREMENTS OF THE PROJECT MANUAL BY CONTRACTOR, CONTRACTOR'S SUBCONTRACTORS, SUPPLIERS, AND AGENTS. CONTRACTOR SHALL NOT BE ENTITLED TO AN EXTENSION OF ANY COMPLETION DATE OF THE SCHEDULED COMPLETION DATE FOR THE ABOVE STATED REASONS OR ANY OTHER REASONS, EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THE PROJECT MANUAL.
- 89.10 **Notification of Inability to Comply:** If the Contractor, at any time, ascertains that for any reason it is unable to complete the phases of the Work by the Milestones, or complete the Project by the Scheduled Completion Date, Contractor shall promptly and without delay notify the Project Manager in writing of this fact.
- 89.11 **Liquidated Damages:** The Parties acknowledge and agree that if Contractor fails to achieve Substantial Completion of the Project by the Scheduled Completion Date or fails to achieve Substantial Completion of a Milestone, as such dates may be extended in accordance with the Project Manual, OCFA will suffer, as a result of Contractor's failure, substantial damages which are both extremely difficult and impracticable to ascertain. Therefore the Parties having reasonably endeavored, but failed, to ascertain an amount bearing a reasonable relationship to the actual damage that OCFA will incur if Contractor fails to achieve Substantial Completion of the Project by the Scheduled Completion Date or fails to achieve completion of a Milestone as such dates may be extended in accordance with the Project Manual, agree that in addition to all other damages to which OCFA may be entitled, Contractor agrees to pay to OCFA as liquidated damages, and not as a penalty but as a reasonable estimate of the amount of damages OCFA will suffer, the amount of Five Hundred Dollars (\$500.00) per day for each calendar day occurring after the completion date of a Milestone during which Contractor fails to achieve Substantial Completion for each such Milestone. In addition, the OCFA shall have the right to charge to the Contractor and to deduct from payments for the Work the actual cost to the OCFA of engineering, inspection, superintendence, and other overhead expenses, which are directly chargeable to the Contract and which accrue during the period of such delay. The expenses and damages described above shall be deducted

from any money due the Contractor under this contract. The Contractor and its sureties shall be liable for any excess cost.

- 89.12 **Additional Remedies:** The Parties also acknowledge and agree that OCFA is entitled to any and all legal and equitable remedies OCFA may have that exceed the amount of Liquidated Damages.

## 90 Audit And Access To Records

- 90.1 Contractor shall maintain all books, records, documents, and other evidence directly pertinent to the performance of the work under this Contract in accordance with generally accepted accounting principles and practices consistently applied. Contractor shall also maintain all financial information and data used by the Contractor in the preparation or support of any cost submission, including the Contractor's original bid required for this Contract, or any Change Order, claim, or other request for any adjustment, and a copy of the cost summary or information submitted to the OCFA. The Project Manager or the Fire Chief shall have access upon twenty-four hours advanced written notice, at all times during normal business hours, to all such books, records, documents, financial information, and all other evidence for the purpose of inspection, audit, and copying. The Contractor shall, at no cost to the OCFA, provide proper facilities for such access, inspection, and copying purposes.
- 90.2 The Parties agree that the provisions of this Section 90 are applicable to Project Manual and all Change Orders, claims, and any other request for adjustment affecting the time or price of this Contract. The Contractor agrees to include the provisions of this Section 90 in all Subcontracts and purchase orders, at any tier, and make this Section 90 applicable to all Change Orders, claims, and other requests for adjustment related to Project performance by Contractor's Subcontractors and suppliers.
- 90.3 Audits conducted under this Section 90 shall be in accordance with generally accepted auditing standards and established procedures and guidelines.
- 90.4 The Contractor agrees to the disclosure of all information and reports resulting from access to records under the provisions of this Section to the OCFA, the Fire Chief, the Project Manager, and any affected or interested state or local agency.
- 90.5 Records under the provisions of this Section 90 shall be maintained and made available during the performance of the Work under this Contract until three years past final payment and until final settlement of all disputes, claims, or litigation, whichever occurs later. In addition, those records which relate to any portion of this Contract to any Change Order, dispute, litigation, settlement of any claim arising out of such performance, or to the cost of items to which an audit exception has been taken, shall be maintained and made available until final payment or final resolution of such dispute, litigation, claim, or exception, whichever occurs later.
- 90.6 These rights to access provisions as provided in this Section 90 apply to all financial records pertaining to this Contract and all Change Orders and claims. In addition, this right to access applies to all records pertaining to all contracts, Change Orders, and any amendments to this Contract: (1) To the extent the records pertain directly to Contract performance; (2) If there is any indication that fraud, gross abuse, or corrupt practices may be involved; or (3) If the Contract is terminated for default or convenience.
- 90.7 Access to records is not limited to the required retention periods. The Fire Chief shall have access to records at any reasonable time for as long as the records are maintained.

**91 Resolution Of Construction Claims**

- 91.1 California Public Contract Code (PCC) section 9204 as adopted by Assembly Bill 626 prescribes a process to present, confer, and mediate construction claims relating to the OCFA's public works project. Notwithstanding any provisions to the contrary in the Project Manual, this section 91 shall govern all disputes to which section 9204 applies.
- 91.2 For purposes of this Section 91, "Claim" means a separate demand by the Contractor sent by registered mail or certified mail with return receipt requested for (A) a time extension, including, without limitation for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project (B) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled, or the amount the payment of which is disputed by the local agency. (PCC 9204(c)(1))
- 91.3 For purposes of this Section 91, "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or another public improvement of any kind.
- 91.4 For any Claim subject to this Section 91, California Public Contract Code section 9204 requires the following:
- 91.4.1 The claim shall be submitted by the Contractor in writing, sent by registered mail or certified mail with return receipt requested and must include the documents necessary to substantiate the claim. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims. However, upon receipt of a claim, the OCFA, and the Contractor may, by mutual agreement, extend the time period provided by statute.
- 91.4.2 For claims of all amounts, the OCFA shall respond within 45 days of receipt of the claim, and provide the claimant a written statement identifying which portion of the claim is disputed and which portion of the claim is undisputed. If the OCFA requires approval from the Board of Directors, and the Board of Directors does not meet within the 45-day period to respond, the OCFA shall have up to three days to issue its response following the Board of Directors meeting.
- 91.4.3 For all portions of a claim determined to be undisputed, the OCFA must process payment to the claimant within 60 days of issuing the OCFA's written determination.
- 91.4.4 If the claimant disputes the OCFA's response, or if the OCFA fails to respond within the time limits provided, the claimant may demand an informal conference to meet and confer for settlement of the issues in dispute. The demand must be sent in writing by registered or certified mail, return receipt requested. Upon receipt of a demand, the OCFA must schedule a meet and confer conference within 30 calendar days for settlement of the disputed claim.
- 91.4.5 Within ten (10) business days following the conclusion of the meet and confer conference, if any portion of the claim remains in dispute, the OCFA shall provide the claimant an addition written statement identifying the portion of the claim that is undisputed and the portion that remains in dispute.

- 91.4.6 For all portions of a claim determined to be undisputed, the OCFA must process payment to the claimant within 60 calendar days of issuing the OCFA's written determination.
- 91.4.7 Any remaining undisputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation in which the parties share the cost evenly. The OCFA and the claimant shall mutually agree on a mediator within ten (10) business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree, each party shall select a mediator and those mediators shall jointly select a qualified, neutral third party to mediate the remaining undisputed claim. Each party shall bear the respective costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside of PCC section 9204.
- 91.4.8 Unless otherwise agreed to by the OCFA and the Contractor in writing, the mediation conducted pursuant to this Section 91 shall excuse any further obligation under PCC Section 20104.4 to mediate after litigation has been commenced.
- 91.4.9 Public Contract Code Section 9204 does not preclude the OCFA from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program if mediation under this section 91 does not resolve the parties' dispute.
- 91.4.10 Should the OCFA fail to respond to a claim, or fail to issue written statements as required, the Contractor's claim is deemed denied. A claim denied by reason of the OCFA's failure to respond shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.
- 91.4.11 Amounts not paid in a timely manner as required by PCC 9204 shall bear interest at seven percent per annum.

## **92 Notice Of Third-Party Claims**

When required by PCC Section 9201, the OCFA will provide timely notification to Contractor of the receipt of any third-party claim relating to the Agreement. The Contractor agrees to reimburse the OCFA for its reasonable costs incurred in providing such notice.

## **93 Cleanup**

- 93.1 The Contractor shall at all times keep the Site clean and free from accumulation of waste materials or rubbish (including, without limitation, hazardous waste), caused by his performance of the Work, and shall continuously throughout performance of the Work remove and dispose of all such materials from the Site and the Project.
- 93.2 Project Manager may require the Contractor to comply with such standards, means and methods of cleanup, removal or disposal as Project Manager may make known to the Contractor. In event the Contractor fails to keep the Site clean and free from such waste or rubbish, or to comply with such standards, means and methods, OCFA may take such action and offset any and all costs or expenses of whatever nature paid or incurred by OCFA in undertaking such action against any sums then or thereafter due to the Contractor.
- 93.3 The Contractor shall notify OCFA in advance of the generation, importation, storage, transportation or disposal, of any hazardous waste, toxic materials or contaminants of any type in connection with the Project. Contractor shall provide Project Manager with Material

Safety Data Sheets (MSDS's) and the Uniform Hazardous Waste documents. The Contractor will develop and implement a written and effective Spill Control and Containment Plan.

#### **94 Trenches and Excavations**

- 94.1 The Contractor shall promptly, and before any of the following conditions are disturbed, notify the Project Manager, in writing, of any:
- (1) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law; or
  - (2) Subsurface of latent physical conditions at the Site differing from those indicated; or
  - (3) Unknown physical conditions at the Site of unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract and Project Manual.
- 94.2 The Project Manager shall promptly investigate the conditions, and if the Project Manager finds that the conditions materially so differ, or do involve hazardous waste, and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a change order, subject to the provisions of the Project Manual.
- 94.3 In the event that a dispute arises between the Project Manager and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any Scheduled Completion Date provided for in the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes and protests between parties.

#### **95 Uncovering and Correction of Work; OCFA's Right To Carry Out Work**

- 95.1 If any portion of the Work should be covered contrary to the instructions or request of Project Manager or the requirements of the Project Manual, the Contractor shall, if required by Project Manager, uncover such portion of the Work for Project Manager's observation and shall replace such Work all at the Contractor's expense.
- 95.2 If any portion of the Work should be covered prior to a specific request for observation or instruction by Project Manager, Project Manager may request to see such Work, and it shall be uncovered by the Contractor. If such Work is found to be in accordance with the Project Manual and without defect, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to OCFA. If such Work is found to be defective or not in accordance with the Project Manual, the Contractor shall bear such costs.
- 95.3 Project Manager shall have the authority to reject any portion of the Work which is defective or does not conform to the Project Manual, and the Contractor shall promptly correct all Work so rejected by Project Manager, whether observed before or after the Date of Substantial Completion and whether or not fabricated, installed or completed. In order that such corrective Work shall not interrupt or delay Contractor's Construction Schedule or the completion date of the Project, the Contractor shall perform such Work according to a schedule therefor established by Project Manager (which may provide that the same be performed on overtime, shiftwork, Saturdays, Sundays and/or holidays), utilizing in the performance thereof such manpower as is necessary to complete the corrective Work in accordance with said schedule. The Contractor shall bear all costs of correcting such rejected

Work including, without limitation, compensation for any additional architectural and engineering services made necessary thereby.

- 95.4 If, within one (1) year after the Completion of the Work (as determined by OCFA) or within such longer period of time as may be prescribed by law or by the terms of any applicable warranty or guarantee required by the Project Manual, any of the Work is found to be defective or not in accordance with the Project Manual, the Contractor shall correct it promptly after receipt of written instructions to that effect from OCFA unless OCFA has previously given the Contractor a written acceptance of such condition.
- 95.5 The Contractor shall remove from the Site all Work which is defective or non-conforming and not corrected under the provisions of these General Conditions unless removal is waived in writing by OCFA.
- 95.6 If the Contractor does not remove such uncorrected defective or non-conforming Work within a reasonable time fixed by written instructions to that effect from Project Manager, OCFA may remove it and store the materials and equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, OCFA may, upon ten (10) additional days written notification to the Contractor, sell such materials and equipment at public or private sale and account to the Contractor for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for any additional architectural and engineering services and attorneys' fees made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then or thereafter due to the Contractor are not sufficient to cover such difference, the Contractor shall, upon demand, pay the same to OCFA. The obligations of the Contractor under this Subsection shall be in addition to, and not in limitation of, any obligations imposed on it by law, by any other provision of this Contract or by any warranty or guarantee under this Contract.
- 95.7 If the Contractor fails to correct any defective or non-conforming Work, OCFA may correct it with its own forces or by contract with a third party contractor. In the event of a defect found after final acceptance of the Work by OCFA which the Contractor is obligated to correct pursuant to Project Manual, OCFA may, at its option, after giving the Contractor an opportunity to correct such defect, cause such corrective Work to be performed by others and charge the Contractor with the cost thereof. Such charge shall be due and payable by the Contractor upon demand.
- 95.8 If the Contractor defaults or neglects to carry out the Work in accordance with the Project Manual or fails to perform any provision of this Contract, and such default, neglect or non-performance shall continue for a period of 48 hours after written notification thereof from OCFA (or if such default, neglect or non-performance cannot be reasonably remedied within such 48-hour period, and Contractor does not (in the sole determination of OCFA) undertake in good faith the remedy of the same within said period and thereafter proceed diligently to completion), then OCFA may, without prejudice to any other remedy OCFA may have, make good such deficiencies; provided, however, that in the event of an emergency, as determined by OCFA, no notification shall be required. OCFA shall have the right to take possession of such portion of the Site as will enable it to make good such deficiencies and, in connection therewith, to utilize the materials, equipment, tools, construction equipment and machinery of the Contractor located on the Site. If OCFA makes good any such deficiencies, the costs of correcting the same including, without limitation, compensation for additional architectural and engineering services made necessary by such default, neglect or non-performance, shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then

or thereafter due to the Contractor are not sufficient to cover such costs, then the Contractor shall, upon demand, pay the difference to OCFA.

- 95.9 If OCFA prefers to accept defective or non-conforming Work, it may do so instead of requiring its removal and correction, in which case an appropriate amount shall be offset against any amounts then or thereafter due to the Contractor; or, if the said appropriate amount of offset is determined after final payment (or if there is not then or thereafter due to the Contractor an amount sufficient to cover the offset available to OCFA), the Contractor shall, upon demand, pay the appropriate amount (or the difference after offset, as applicable) to OCFA.

## **96 Plans, Specifications and Survey**

The Contractor shall maintain a control set of Plans, Specifications and survey on the Project site at all times. All final locations determined in the field by survey, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show the as-constructed conditions. Upon completion of all work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement has been met.

## **97 Permits**

OCFA will reimburse the Contractor for the public agency-charged fee for permits, inspections. No profit amount shall be added to such reimbursement.

## **98 Compliance with Laws; Non-Discrimination**

Contractor shall ensure that its officers, employees, agents, contractors, and subcontractors: (1) conduct themselves in compliance with all applicable laws and licensure requirements including, without limitation, compliance with laws applicable to nondiscrimination, harassment, and ethical behavior, throughout the duration of the Contract; and (2) comply with all OCFA, State, and Federal, Local Agency and Regulatory Agency orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Failure to file any report due under said orders will result in suspension of periodic progress payments. The Contractor shall ensure unlimited access to the job site for all equal employment opportunity compliance officers.

## **99 Right-Of-Way And Easements**

In the event any required easements have not yet been acquired by the OCFA, the Contractor shall conduct its operation so as to confine its work to the limits of the existing right-of-way.

## **100 Disputed Work**

Contractor shall keep all records of disputed work in accordance with the General Conditions. In any case where the Contractor believes extra compensation is due the Contractor for work or materials not clearly covered in the Contract, or not ordered by the OCFA as "extra work", the Contractor shall notify the OCFA in writing of the Contractor's intention to make claim for such extra compensation before the Contractor begins the work on which Contractor bases the claim. All "claims" as that term is defined in Public Contract Code section 9204 shall be submitted and processed in accordance with Section 91 hereinabove. Such notice by the Contractor, and the fact that the OCFA has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim. The validity of the claim must be determined by the OCFA. If the OCFA determines that all or a portion of the claim is well founded, the valid portion shall be allowed and paid for as "extra work"; if the OCFA determines that all or a portion of the claim is not well founded, the portion that is not well founded shall be disallowed and not paid, subject to Section 91. Nothing herein limits the authority of the OCFA to consider, approve or disapprove of Change Orders in accordance with the Project Manual.

**101 Time of Completion.**

Work will be deemed completed on the same date when the Notice of Completion is recorded with the County of Orange.

**102 Delivered Materials.**

Materials and equipment delivered but not incorporated into the work shall not be included in the estimate for progress payment.

**103 Mobilization.**

103.1 Mobilization shall consist of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies, and incidentals to the Project site; for the establishment of all offices, buildings and other facilities necessary for the work on this Project; and for all other work and operations which must be performed or cost incurred prior to beginning work on the various contract items on the Project site. Mobilization is deemed to include all aspects of mobilization and de-mobilization work occurring during the life of the Project for any reason.

103.2 Full compensation for mobilization shall be included in the Contract lump sum price bid for Mobilization and shall include full compensation for all costs incurred by the Contractor for doing all the work involved in mobilization as specified herein, and no additional compensation will be allowed. Mobilization shall not exceed 5% of the entire bid, excluding mobilization and as shown in the Proposal Bid Sheet.

**104 Facilities For Contract Personnel.****104.1 Extended Field Office Overhead Cost.**

104.1.1 Within fourteen (14) calendar days after receipt of the Notice to Proceed, the Contractor shall submit a written statement to the OCFA detailing its field office overhead costs which are time related. The OCFA will review this first cost submittal and reach a written agreement with the Contractor on a daily field office overhead cost rate which shall be memorialized in a no cost change order. The daily rate agreed to in this change order will be applicable throughout the duration of the Contract. No field office costs will be paid until such an agreement is reached between the OCFA and the Contractor and the change order concerning this daily rate is executed by both parties. Progress payments will be withheld pending receipt of the above-referenced cost submittal and executed change order.

104.1.2 The individual cost components of the daily field office overhead rate shall represent costs which increase as a direct result of any time extension caused solely and exclusively by an act or omission of the OCFA. This listing may include such cost items as on-site project management, supervision, Engineering and clerical salaries; on-site utilities and rent; on-site company vehicles and their operating expenses; and site maintenance and security expenses. Field office overhead costs which are unaffected by increased time shall not be allowable cost in calculating the daily field office overhead rate. These non-time related costs include, but are not limited to, acquisition and installation of stationary equipment; temporary construction facilities; utilities and office furnishings (unless such items are rented or leased); the preparation of the site

including clearing, grubbing, grading, fencing, mobilizations and demobilization costs; and the costs of permits, bonds and insurance coverage for the Project.

104.1.3 The individual wage cost components used to calculate the daily field office rate shall be supported by actual employee payroll records, not salary ranges or estimates. Hourly rates for management, supervisory, engineering, and clerical employees shall be based upon 2080 work hours per year and shall not include allowances for holidays, vacations, or sick time.

104.1.4 When applicable, the daily field office overhead rate shall be multiplied by the number of days the Contract is delayed or extended by change order and shall be added to the agreed upon change order cost. The days of delay shall be those caused solely by the acts or omissions of the OCFA and documented by a time impact analysis prepared and submitted by the Contractor. In the event a deductive change order is issued which reduces time under the Contract, the daily field office overhead rate shall be used to calculate the deductive amount. No allowance for overhead costs and no profit allowance shall be added to the extended field office overhead cost.

#### **105 OCFA Officers And Employees; Non-Discrimination**

105.1 No member, officer, member of the OCFA Board of Directors, or employee of the OCFA shall be personally liable to Contractor, or any successor in interest, in the event of any default or breach by OCFA or for any amount which may become due to Contractor or to its successor, or for breach of any obligation of the terms of this Contract.

105.2 Pursuant to the provisions of the OCFA's conflict of interest code, the Political Reform Act as set forth in Government Code Section 81000 et seq., and/or the prohibition against self-dealing in contracts as set forth in Government Code Section 1090 et. seq., the Parties acknowledge that no officer or employee of the OCFA, or any member of the OCFA Board, shall have any personal interest, direct or indirect, in this Contract or any Subcontract under the Contract, nor shall any such officer, employee, or member of the OCFA Board participate in any decision relating to the Contract which effects his or her personal interest or the interest of any corporation, partnership, or association in which he or she is, directly or indirectly, interested. In the furtherance of such acknowledgement, Contractor:

- i. Contractor agrees that no officer, employee, member of the OCFA Board of Directors, agent, or assignee of the OCFA having direct or indirect control of any monies allocated by OCFA to finance this Project, shall serve as an officer, director, employee, or agent of Contractor, or as a officer, director, employee, or agent of any Subcontractor of supplier of Contractor under this Contract; and
- ii. Any conflict or potential conflict of interest of any officer, director, employee, or agent of Contractor or any Subcontractor or supplier of Contractor has been fully disclosed to the OCFA prior to execution of this Contract and such disclosure shall be deemed a part of this Contract.

105.3 Contractor shall not expend any funds for the purpose of influencing or attempting to influence an officer, member, employee, or member of the OCFA Board in the connection with the awarding and the administration of this Contract or any subcontract in furtherance of the Project.

**106 Entire Agreement**

It is agreed that this Contract (which incorporates the Project Manual) represents the entire agreement. It is further agreed that the Project Manual is incorporated in this Contract by this reference, with the same force and effect as if the same were set forth at length within the Contract, and that Contractor and Contractor's officers, employees, agents, trades, material suppliers, and Subcontractors will be and are bound by any and all of said Project Manual insofar as they relate in any part or in any way, directly or indirectly, to the work covered by this Contract.

**107 Written Notices**

Any written notice required to be given in any part of the Contract Documents shall be performed by dispatching the same via email directed to the email address of the Contractor as set forth in the Contract Documents, and to the OCFA addressed as follows:

A. [INSERT OCFA CONTACT INFO FOR NOTICES]

B. [INSERT CONTRACTOR CONTACT INFO FOR NOTICES]

**108 Miscellaneous Provisions**

- 108.1 Assignment: Contractor shall neither delegate its duties or obligations, nor assign its rights with respect to this Contract, either in whole or in part. Any such attempted delegation and/or assignment shall be void and deemed void at such occurrence, if it were to occur.
- 108.2 Computation of Time: When any period of time is referred to in the Project Manual by days, it shall be computed to exclude the first and include the last day of the period, provided, however, that if the last day of the period falls on a Saturday, Sunday, or legal holiday, that day shall be omitted from the computation. "Days" refers to calendar days unless otherwise expressly provided.
- 108.3 Remedies Cumulative: No remedy herein reserved to OCFA is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to any other given in the Project Manual as now or hereafter existing or at law, equity, or by statute.
- 108.4 Nonwaiver: The failure of the OCFA to notify the Contractor of any default under the Project Manual shall not be deemed to be a waiver by OCFA of any continuing default by Contractor of any term, covenant, or condition set forth in this Contract, nor of the OCFA's right to declare a default for any such continuing breach, and the failure of OCFA to insist upon strict performance of any of the terms, covenants, or conditions of the Project Manual, or to exercise any option in the Project Manual in any one or more instances, shall not be construed as a waiver or relinquishment of any such terms, covenants, conditions or options, but the same shall be and remain in full force and effect.
- 108.5 Severability: In case any one or more provisions set forth in the Project Manual shall for any reason be held invalid, illegal, or unenforceable in any respect, any such invalidity, illegality, or unenforceability shall not affect any other provision of the Project Manual, and the Project Manual and this Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been incorporated therein so long as the deletion of such provision does not, in the OCFA's judgment, materially alter this Contract.

- 108.6 No Third Party Beneficiaries: The Project Manual and this Contract are not intended and shall not be deemed or construed, to confer any rights, powers, or privileges on any person, firm, partnership, corporation, or other entity not a party to this Contract except as may be expressly provided in the Contract to the contrary.
- 108.7 No Verbal Agreements: No verbal order, objection, claim, or notice by any party to the other shall affect or modify any of the terms or obligations contained in this Contract or the Project Manual, and none of the provisions of the Project Manual shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or Modification in writing and executed in the manner required in this Contract by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.
- 108.8 Counterparts: This Contract may be executed in any number of counterparts, and each of such counterparts for all purposes shall be deemed to be an original, and all of such counterparts should constitute one and the same agreement.
- 108.9 Governing Law/Venue: The Contract, including the Project Manual, shall be governed by the laws of the State of California. Venue for all disputes related to the Project, the Contract Agreement and/or the Project Manual shall be in Orange County, California.
- 108.10 Services Prior to Execution: Notwithstanding the fact that this Contract is executed as of the date first set forth above, the Parties recognize that a portion of the Work required under the Project Manual may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of this Contract and shall be deemed to be a part of the Work. Without limiting the foregoing, all of Contractor's liabilities and obligations to OCFA under the Project Manual shall apply to all Work and services provided by the Contractor for the Work prior hereto, notwithstanding the fact that the Work may have been performed prior to the date hereof pursuant to prior negotiations, representations, agreements, understandings, or otherwise.
- 108.11 Survival of Rights: Any indemnity, warranty, guarantee given by the Contractor to the OCFA under this Contract shall survive the expiration or termination of this Contract and shall be binding upon Contractor until any action under this Contract is barred by the applicable statute of limitations.
- 108.12 Notice: All notices (whether or not designated as such herein) which are required under this Contract to be given between the parties pursuant to this Paragraph shall be in writing and deemed given and, unless otherwise provided herein, effective when delivered personally to an officer of the party to be served (including the Contractor's Project Manager, in the case of the Contractor), when deposited in the United States mail, or in a sealed envelope, with postage thereon prepaid, sent by registered or certified mail, return receipt requested, and addressed to the appropriate party at the address set forth in the Contract or such other address as may be designated by either party hereto by notice to the other, or when transmitted by wire or facsimile to the appropriate party at the aforesaid address (a complimentary confirming letter shall also be mailed to the appropriate party on the same date).
- 108.13 Maintenance of Harmonious Relations: The Contractor is hereby advised that any portion of the Project, or other projects in proximity to the Project may be subject to, and governed by, certain union or trade agreements. It is the policy of OCFA to promote and maintain harmonious relationships in connection with the Project. The Contractor and its Subcontractors and Sub-subcontractors shall follow this policy; and shall utilize only

qualified persons or organizations in the performance of the Work. A qualified person or organization is one: which is not likely to promote labor unrest on the Project; which shall abide by all local, state and federal labor and employment relation rules, regulations and laws; whose financial stability is reasonably assured throughout the duration of the Contract; and whose commitments to other projects are not likely to interfere with its ability to perform its portion of the Work efficiently and cost effectively. OCFA reserves the right to disapprove, or to require the removal of, any person or organization who is being considered for, or has received, an award to perform all or a portion of the Work but has failed to demonstrate the willingness or ability to follow this policy.

- 108.14 Union Agreements: Regardless of the expiration of any collective bargaining agreement during the term of this Contract which may affect the Contractor in any of its activities including, without limitation, with respect to the Work or the Project, the Contractor is obligated to man the job and properly and timely perform the Work in a diligent manner. Upon notification of expected or actual labor disputes or job disruption arising out of any such collective bargaining negotiations, the expiration of any union or trade agreement or any other cause, the Contractor and its Subcontractors and Sub-subcontractors shall cooperate with OCFA concerning any legal, practical or contractual actions to be taken by OCFA in response thereto and shall perform any actions requested by OCFA to eliminate, neutralize or mitigate the affects of such actions on the progress of the Work and the impact of such actions on the public access to OCFA's facilities. It is the Contractor's obligation, at the Contractor's own cost and expense, to take all steps available to prevent any persons performing the work from engaging in any disruptive activities such as strikes, picketing, slowdowns, job actions or work stoppages of any nature or ceasing to work due to picketing or other such activities, which steps shall include, without limitation, execution of an appropriate project agreement with appropriate unions prohibiting all such activities on or about the Project. Notwithstanding any such occurrences, the Contractor shall not be relieved of its obligation to man the job and properly and timely perform the Work in a diligent manner.
- 108.15 Immigration Reform Control Act: All Contractors, Subcontractors, and Sub-subcontractors must adhere to the Immigration Reform Control Act of 1986 and shall maintain I-9 forms regarding all employees. It is not OCFA's obligation to insure compliance with this law, however, OCFA reserves the right to inspect and copy the Contractor's records in this regard upon request.
- 108.16 General: The captions of divisions, sections, articles, Paragraphs, Subparagraphs, clauses and the like in the Project Manual are for convenience only and shall in no way define the content or limit the meaning or construction of the wording of the divisions, sections, articles, Paragraphs, Subparagraphs, clauses and the like. The parties agree that the Project Manual shall not be construed more strictly against any party regardless of the identity of their drafter. Unless otherwise specified, Section and Subsection references appearing in these General Conditions are to Section and Subsections of the Contract Agreement.
- 108.17 Evidence of Corporate Existence and Good Standing. A corporation to which an award is made may be required, before the Contract Agreement is executed by the OCFA, to furnish evidence of its corporate existence and good standing, of its right to enter into contracts in the State of California, and that the officers signing the Contract and bonds for the corporation have the authority to do so. (Ref: California Corporations Code section 7214.)

END OF DOCUMENT

## **SECTION 5: TECHNICAL SPECIFICATIONS**

**5A: SECTION 16000 – GENERAL ELECTRICAL**

**SECTION 16000**  
**GENERAL ELECTRICAL**

**PART 1 - GENERAL PROVISIONS**

**1.01 DESCRIPTION**

- A. It is the intent of this section of the specifications that the Contractor furnish all labor, supervision, tools, equipment, and materials necessary for erecting complete and ready for continuous use, a tested and working electrical system, substantially as indicated on the plans and hereinafter specified.
- B. These specifications are intended to provide a broad outline of the work and equipment required, but are not intended to include all the details of design and construction.
- C. The electrical plans are diagrammatic, approximately to scale. However, they shall not be used for exact locations. The Contractor shall verify all dimensions from the detailed drawings and approved shop drawings and shall coordinate these dimensions with actual field conditions. Actual distances, locations, and elevations will be governed by actual field conditions.
- D. Allowance has been made in the design for the number of conduits, cables and conductors, which the Engineer considers adequate for feeding various drives and equipment. These circuits and diagrams are based on available data pertaining to a particular design of equipment and portray the systems, which the Engineer has chosen to effect the required operation and level of control. Equipment provided by the Contractor (even though of the make and model specified) may differ in detail, arrangement, connections or form from that shown. If the Contractor uses equipment which differs from the equipment shown in major aspects and requires modifications to power, control or other electrical systems (including, but not limited to, size and quantity changes to wires, raceways, starters, circuit breakers, control devices, etc.), the Engineer's acceptance of the equipment will be based upon the Contractor providing the modification required, and they shall be of the same quality as shown and shall be provided at no additional cost to the Owner.
- E. The plans do not, and are not intended to, show all equipment, such as pull boxes, junction boxes, etc. required nor to indicate all mechanical or structural difficulties that may be encountered which would necessitate routing alteration, offsets, or fittings. Items not specifically mentioned in these specifications or noted on the plans or approved shop drawings, but which are obviously necessary to make a complete working installation, shall be deemed to be included herein.

- F. Discrepancies shown on different plans, between plans and actual field conditions, or between plans and specifications shall be promptly brought to the attention of the Engineer for a decision.
- G. The alignment of equipment and conduit shall be varied due to all changes, or to avoid work of other trades, without extra expense to the Owner.
- H. All electrical equipment shall be capable of operating successfully at full-rated load, without failure, when the ambient temperature of the air is 40 degrees C except where specified otherwise.
- I. Electrical conductors including cable, bus bars, etc. shall be copper, except where specified otherwise.

#### 1.02 SCOPE OF WORK

- A. The Contractor shall provide all the materials and equipment, and perform all the work necessary for the complete execution of the electrical work as shown on the electrical plans and specified herein, including electrical work indicated on other plans which is specifically included in the electrical work. The Contractor shall provide all labor and materials not specifically shown on the plans or specified herein, yet required to ensure proper and complete operation of any system(s) or design intent inherent in the project except as specifically excluded. The Contractor must submit evidence of past projects showing installation of similar size, configuration, and complexity to qualify for this project.
- B. In general, the electrical work as referred to herein shall consist of, but not be limited to, the items listed as follows:
  - 1. Main switchgear modifications.
  - 2. New breakers, power panels, and distribution boards.
  - 3. Power and control conduit/raceway systems.
  - 4. All conduit wiring, connections, and testing for work specified in Section 16000 of these specifications.
  - 5. Furnish and install a complete system to duplicate and relocate the NAVCOM equipment, with associated system cables and components.
  - 6. Provide all labor, and cable to relocate existing equipment during demolition and new system installation.
- C. Contractor shall provide a coordination study for portions of work that require new circuit breakers and new feeders to the Engineer prior to energizing the new equipment or devices. The study shall include analysis, settings, and coordination curves.

### 1.03 CODES AND STANDARDS

- A. All the equipment and materials shall conform to the latest revision of the following standards:
- American National Standards Institute (ANSI)
  - Institute of Electrical and Electronic Engineers (IEEE)
  - National Electrical Manufacturers Association (NEMA)
  - Underwriters' Laboratories (UL)
  - Insulated Power Cable Engineers Association (IPCEA)
  - American Society for Testing and Materials (ASTM)
  - National Electrical Code (NEC)
  - National Electrical Testing Agency (NETA)
- B. Responsibility for complying with all applicable government regulations shall be as required in the Special Conditions.
- C. All electrical equipment and materials, and the design, construction, and installation thereof, shall comply with all applicable provisions of the Federal Occupational Safety and Health Act (OSHA), State Building Standards, and applicable local codes and regulations.
- D. Where the plans or these specifications call for equipment and workmanship to be of better quality of higher standard than required by the above codes, standards, rules, and regulation, then said plans and specifications shall prevail. Nothing on the plans or in these specifications shall be construed to permit work in violation of the above codes, standards, rules, and regulations and the Contractor shall be held responsible for any work which is not acceptable.
- E. In case of differences between the building codes, specifications, state law, local ordinances, industry standards, utility company regulations, fire insurance carrier's requirements, and the contract documents, the most stringent shall govern. The Contractor shall promptly notify the Engineer in writing of such differences, and not proceed with changes until approved by both the Engineer and the Owner, whether it is a credit or an addition to the contract price.

### 1.04 COORDINATION OF WORK AND TRADES

- A. Electrical work shall conform with the construction schedule and progress of other trades. The electrical construction shall be performed in cooperation with all other trades so that a neat and orderly arrangement of the work as a whole shall be obtained.

- B. Electrical apparatus on all equipment shall be handled, set in place, connected, checked out, serviced, and placed in readiness for proper operation to the satisfaction of the Owner and Engineer all within the scope of work intended under this section.
- C. Before any work is started, the Contractor shall verify with the equipment manufacturers that equipment dimensions and arrangements will allow for equipment installation in the spaces provided for on the plans for switchgear, switchboards, panelboards, motor control centers, terminal cabinets, transformers, and other major items of electrical equipment or apparatus and that the installation indicated will provide for all required ventilation, clearances, access, and work spare.
- D. Before installing any equipment, materials, or raceways, the Contractor shall examine the complete set of plans and specifications and approved shop drawings and verify all dimensions and space requirements.

#### 1.05 PERMITS AND INSPECTIONS

The Contractor shall obtain all permits and inspections and he shall pay all fees. At the conclusion of the work on the project, the Contractor shall furnish to the Owner, properly executed, all required certificates of final inspection and approval before the work will be accepted as complete.

#### 1.06 EQUIPMENT, MATERIALS AND WORKMANSHIP

- A. It is the intent of these specifications and of the plans, to secure high quality in all equipment and materials, and to require first-class workmanship, in order to facilitate trouble-free operation and minimum maintenance of the electrical system.
- B. All equipment and materials shall be new, listed by UL, and bear the UL label, unless exception to this requirement is inherent to an individual item specified herein, or exception is otherwise granted by the Engineer.
- C. Equipment and materials shall be the products of reputable, experienced manufacturers. Similar items in the project all shall be the products of the same manufacturer. All equipment and materials shall be of industrial grade and standard of construction, shall be of sturdy design and manufacture, and shall be capable of long, reliable, trouble-free service.
- D. All work, including installation, connection, calibration, testing and adjustment, shall be done by qualified, experienced personnel who are technically skilled in their trades, are thoroughly instructed, and are competently supervised. The resulting complete installation shall reflect professional quality work, employing industrial standards and methods. Any and all defective material or inferior workmanship shall be corrected immediately to the satisfaction of the Engineer at no additional cost to the Owner.

## 1.07 AREA DESIGNATIONS.

- A. General: For purposes of defining electrical enclosure and electrical installation requirements of this project, certain areas have been classified on the plans and in these specifications as defined below. Electrical equipment and installations within these areas shall conform to the code requirements for the areas involved.
- B. General Purpose Locations: Electrical work installed in areas which are not specifically classified shall be "General Purpose." Workmanship, materials, and enclosures in these locations shall comply with the general requirements of this specification.

## 1.08 CONTRACTOR SUBMITTALS

- A. Material and Equipment Schedules: Deliver to the Engineer a complete list of all materials, equipment, apparatus, and fixtures which the Contractor proposes to use. The list shall include sizes, names of manufacturers, catalog numbers, and such other information required to identify the items.
- B. Shop Drawings:
  - 1. The Contractor shall submit (6) six sets to the Engineer detailed dimensioned shop drawings of all designated equipment for favorable review before fabrication. Drawings submitted for review shall include front views, sections, and anchoring details. Separate drawings shall be submitted for elementary control and wiring diagrams. Wiring diagrams shall be complete for all electrical equipment furnished except lighting. Should an error be found in a shop drawing during installation of equipment, the correction, including any field changes found necessary, shall be noted on the drawings shall be checked by the Contractor before submittal for review by the Engineer and the Contractor shall certify that the submittals are in accordance with the plans and specifications.
  - 2. Catalog cuts, bulletins, brochures or the like shall be submitted for items of materials for which shop drawings are not designated to be submitted. These data shall be submitted together with a clear indication of the specific item or items, or class of items proposed, in order to establish written record of the Contractor's intent. A list of items indicating "as specified" will not suffice. A manufacturer's name alone will not suffice. Each sheet of descriptive literature submitted shall be marked by the electrical contractor in black ink to identify the material or equipment as follow:
    - a. Lamp fixture descriptive sheets shall show the fixture schedule for which the sheet applies.
    - b. Equipment and materials descriptive literature and drawings shall show the specification paragraph for which the equipment applies.

- c. Sheets or drawings showing more than the particular item under consideration shall have crossed out all but the pertinent description of the item for which review is requested.
- d. Equipment and materials descriptive literature not readily cross-referenced with the plans or specifications shall be identified by a suitable notation.
- e. Schematics and connection diagrams for all electrical equipment shall be submitted for review. A manufacturer's standard connection diagram or schematic showing more than one scheme of connection will NOT be accepted, unless it is clearly marked to show the intended connections.
- f. Shop drawings shall be submitted for the following items;
  - 1) Switchgear, switchboards, panelboards, motor control centers, terminal cabinets, transformers and other major equipment or apparatus.
  - 2) Control panels and other specially fabricated or custom-made equipment.
  - 3) For other items as may be specifically called for hereinafter.

C. Record Drawings:

- 1. Prior to completion of the contract, the Contractor shall furnish the Engineer with (3) sets of electrical plans marked with any changes, deviations or additions to any part of the electrical work. One set to remain at the job site until the as-built drawings are received by the Owner.
- 2. The Contractor shall clearly indicate on as-built plans the following information:
  - a. All conduit runs as actually installed.
  - b. Location of all underground conduits and stubouts accurately dimensioned.
  - c. Forming, cabling, and identification of all power and control circuits within pull boxes and terminal boxes.
  - d. All changes, deviations, in locations, routing, or dimensions or additions to any part of the electrical work.
  - e. Interior views of each pull box identifying each conduit entrance by conduit number.

D. Operation, Maintenance and Repair Manuals:

- 1. The manuals shall include all systems drawings, block diagrams, schematics, shop drawings, and other pertinent data required to completely describe the operation and maintenance of the installed electrical system.

2. These manuals shall be submitted prior to final acceptance of the system and shall reflect all as-built conditions.
3. The electrical system information in the O & M manuals shall contain:
  - a. System operating instructions written for the benefit of the Owner's operating personnel for normal operational condition and utilizing names of controls as they appear on nameplates.
  - b. Calibration and maintenance instructions, along with 3<sup>rd</sup> party testing data sheets for all circuit breaker settings and ground fault settings..
  - c. Troubleshooting instructions.
  - d. Instructions for ordering replacement parts.
  - e. Parts list.
    - f. List of fuses, lamps, seals, and other expendable equipment and devices.
    - g. List of all vendors, addresses and phone numbers.
    - h. All As-built control diagrams.

E. Miscellaneous Reports:

The Contractor shall submit all other reports as called for in these specifications at the times specified. These miscellaneous reports include, but are not limited to, test procedures, records of electrical test results and certificates of inspection and acceptance.

1.09 GROUNDING

A grounding system shall be installed in accordance with the National Electrical Code and all state and local codes and regulations. The grounding system shall bond together and effectively ground all exposed non-energized metal surfaces containing energized parts, devices or conductors, all building steel, all metallic electrical raceways and the neutrals of all transformers. An equipment grounding conductor shall be installed in all conduit.

1.10 WARNING SIGNS

- A. Permanent warning signs shall be mounted at all mechanical equipment that may be started automatically or from remote locations. Signs shall be made in accordance with Porcelain Enamel Institute Specification S-103 and shall be suitable for exterior use. Mounting details shall be in accordance with manufacturer's recommendation. Signs shall be located as approved by Engineer.
- B. Permanent and conspicuous warning signs shall be mounted on all equipment and doorways to equipment rooms where the voltage exceeds 600 volts. Signs shall be made in accordance with Porcelain Enamel Institute Specification S-103 and shall be suitable for external use. Mounting details shall be in accordance with

manufacturer's recommendations. Signs shall be located as approved by the Engineer.

- C. Warning signs shall be 7 inches high by 10 inches wide, colored red and white, on not less than 18 gauge vitreous enameling stock. Sign shall read:

WARNING  
HIGH VOLTAGE  
KEEP OUT

#### 1.11 QUALITY ASSURANCE

- A. The plans indicate diagrammatically the desired location and arrangement of outlets, conduit runs, equipment, and other items. Exact locations shall be determined in the field based on the physical size and arrangement of equipment, finished elevations, and obstructions. Locations indicated on the plans, however, shall be adhered to as closely as possible.
- B. All conduit and equipment shall be installed in such a manner as to avoid all obstructions, preserving headroom, and keeping openings and passageways clear. Lighting fixtures, switches, convenience outlets, and similar items shall be located within finished rooms as indicated on the plans. Where these plans do not indicate exact locations, such locations shall be approved by the Engineer. Where equipment is installed without approval and must be moved, it shall be moved without additional cost to the Owner.
- C. All materials and equipment shall be installed in accordance with printed recommendations of the manufacturer which have been approved by the Engineer. The installation shall be accomplished by workmen skilled in this type of work and installation shall be coordinated in the field with other trades so that interferences are avoided.
- D. The Contractor shall provide adequate means for and shall fully protect all finished parts of the materials and equipment against damage from any cause during the progress of the work and until accepted by the Engineer.
- E. All materials and equipment, both in storage and during construction, shall be covered in such a manner that no finished surfaces will be damaged, marred, or splattered with water, foam, plaster, or paint, and all moving parts shall be kept clean and dry.
- F. The Contractor shall replace or have refinished by the manufacturer, all damaged materials or equipment, including face plates of panels and switchboard sections, at no expense to the Owner.

- G. The Contractor shall perform the tests described hereinafter and any other tests that may be required by the Engineer or other authorities having jurisdiction. The entire electrical installation shall be tested, adjustments made, and defects corrected as an obligation under the work of this section. The Contractor shall furnish all necessary replacement parts and labor necessary due to damage resulting from damaged equipment or from test and correction of faulty installation. The following testing, as a minimum, shall be accomplished:
1. Insulation resistance tests
  2. Continuity test of all wiring
  3. Test for proper grounding
  4. Test for short circuits in system
  5. Test for all fixture connections
  6. Complete operational test on all equipment
  7. Participate in plant start-up
  8. Arrange and pay for a "testing company" to calibrate, set-up, and field test the trip units of all new and modified existing circuit breakers. Provide written data sheets.
- H. After each electrical installation is complete, it shall be tested thoroughly to demonstrate that the entire system is in proper working order and in accordance with the plans and specifications. In no case shall the tests be less than those outlined hereinafter.
- I. All tests shall conform to General Operation and General Provisions. Test procedures shall be submitted to the Engineer for all tests to be performed. All tests shall be conducted in the presence of the Engineer and shall be subject to this approval. The Engineer shall be notified in writing 14 calendar days prior to the date upon which the test is to take place, and no testing shall be started without the written approval of the Engineer. Six (6) certified copies of all test data shall be submitted to the Engineer for his review.
- J. The project will be subject to continued inspection during construction. The Contractor shall cooperate with the Engineer and shall provide assistance at all times for the inspection of the electrical work. He shall remove covers, operate machinery, or perform any reasonable work that, in the opinion of the Engineer, will be necessary to determine the quality and adequacy of the work. The "Record Drawings" shall be subject to inspection at any time and shall be updated as the work progresses.

#### 1.12 CLEANUP

- A. All parts of the electrical materials and equipment shall be left in a clean condition. Exposed parts shall be clean of cement, plaster and other materials, and all oil and grease spots shall be removed with a non-flammable cleaning

solvent. Such surfaces shall be carefully wiped and all cracks and corners scraped out.

- B. During the progress of the work, the Contractor shall clean up after his men and shall leave the premises and all portions of the site in which he is working free from debris and surplus materials.
- C. At the completion of the work, all lighting fixture reflectors, globes, lenses and diffusers that appear noticeably dirty shall be cleaned and all burned out lamps shall be replaced.

#### 1.13 GUARANTEE

- A. The Contractor shall guarantee his work against any defects in material and workmanship for a period of one year from the date of final inspection. This guarantee shall be in written form and delivered before final acceptance and payment is made. Any latent defects in Contractor-furnished material or workmanship that is discovered during the time of this guaranty shall be repaired or replaced at no cost to the Owner. The Contractor shall respond in a professional manner to a notification of defect or failure and perform work immediately.

### PART 2 - PRODUCTS

#### 2.01 GENERAL

- A. Except as may be specifically indicated otherwise, materials furnished under this section shall be new and in accordance with the standards as herein before specified. Equipment used for the same purpose shall be of the same make. Outdoor equipment, fixtures and wiring devices shall be of approved weatherproof construction or shall be in weatherproof enclosure.
  - 1. Standard Products: Materials and equipment submitted for approval shall be the cataloged products of companies regularly engaged in the manufacture of such items, shall be the latest standard design that conforms to the specification requirements and shall essentially duplicate material and equipment that has been in satisfactory use for at least two years. Replacement parts shall be stocked locally within a radius of two hundred (200) miles from job site.
  - 2. Approved Manufacturers: Wherever on the plans or in the specifications, materials or equipment are identified by the names of one or more manufacturers, it is intended only to indicate an acceptable standard for quality. Equal materials or equipment of other manufacturers may be submitted for consideration to the Engineer ten days prior to bid.

3. Electrical switchgear must be furnished with factory settings listed and certified. In addition, field testing by a 3<sup>rd</sup> party testing company shall be provided, with written test results.

## 2.02 CONDUIT

- A. Rigid metal conduit shall be in accordance with ANSI C80.1 and shall be hot dipped galvanized.
- B. Electric metallic tubing shall be steel, zinc coated.
- C. Flexible metal conduit shall be constructed of interlocking steel strips with continuous zinc coating.
- D. Liquid tight flexible metal conduits shall be constructed of galvanized interlocking steel strips with a smooth moisture and oil-proof, abrasive-resistant neoprene jacket.
- E. Non-metallic conduit shall be Type II, Schedule 40, polyvinyl chloride rated for 90 degrees C.
- F. PVC coated steel conduits shall conform to Federal Specification WW-C581-d, ANSI rigid steel conduit Specification C80.1 and to UL Specification UL-6. The zinc surface inside and outside shall remain intact. A 40 mil thickness PVC coating shall be bonded to the inside and outside of the conduit. A PVC coated coupling shall be furnished with each length of conduit. A PVC sleeve equal to the OD of the conduit shall extend 1-1/2 inches from each end of the coupling.
- G. All conduits shall be identified with a tag number. The tag shall be stainless steel, attached with a stainless steel tie wire. Contractor is required to label all conduits with tag numbers on the shop drawings that corresponds with the labeled conduits in the facility.

## 2.03 CONDUIT FITTINGS, OUTLET AND PULLBOXES

- A. Conduit fittings shall be malleable zinc coated steel. Compression type, no set screw type permitted.
- B. PVC coated fitting shall have a 40-mil thickness PVC coating bonded to the inside and outside body of the fitting. A PVC sleeve equal to the trade diameter of the conduit opening shall extend 1-1/2 inches beyond each threaded opening.
- C. Expansion joints shall be OZ type "AX" Crouse-Hinds type "XJ" or equal and shall be complete with bonding jumper.

- D. Outlet boxes shall be galvanized or sheadized, one-piece pressed steel, knock-out type.
- E. Weatherproof outlet boxes shall be malleable zinc coated steel with threaded conduit entry and gasketed covers.
- F. Hazardous Areas - Use only UL approved devices per N.E.C. Para. 500 as manufactured by Crouse-Hinds. Furnish and install all seals and sealing compounds after wiring is inspected and tested.
- G. Insulated bushings shall be molded plastic or malleable iron with insulating ring.
- H. Grounding bushings shall be malleable iron with insulating bushing and ground lug.
- I. Conduit hubs shall be Appleton Type HUB, Myers "Scrutite," or equal.
- J. Pullboxes shall be code gauge steel with removable covers secured with machine screws. The pullbox shall be painted with two (2) coats of primer and one (1) finished coat of light gray enamel, ANSI No. 61. Pull boxes shall meet all code requirements as to size for number and size of conduits terminating.
- K. Weatherproof pull boxes shall be hot dip galvanized with two (2) coats of primer paint and one (1) coat of enamel, ANSI No. 61 grey. Covers shall be gasketed and made completely weathertight.

#### 2.04 UNDERGROUND PULLBOXES AND MANHOLES

- A. Pullboxes and manholes shall be precast type designed and manufactured for heavy traffic loading with heavy duty, cast iron, traffic type covers. Covers for manholes shall have a minimum diameter of 26 inches. Manholes shall be complete with necking and other appurtenances required for proper installation.
- B. All pullboxes shall have bolt-down covers complete with fiber gaskets for a weathertight fit.
- C. All joints between precast sections shall be sealed.
- D. Box and manhole covers shall be permanently identified as follows:
  - 1. Telephone service - "T"
  - 2. Electrical Systems 600 volts and less - "E"
  - 3. Electrical Systems above 600 volts - "High Voltage"

#### 2.05 WIRING DEVICES AND PLATES

- A. Lighting switches shall be specification grade, quiet, tumble type, rated 20 amperes at 125/277 volts. Color shall be brown except where indicated or noted otherwise.
- B. Convenience outlets shall be duplex, 3-wire grounding type, specification grade, rated 20 amperes, 120/277 volt. Color shall be brown except where indicated or noted otherwise.
- C. Stainless steel cover plates for switches and receptacles shall be 0.040 inch thick with satin finish and shall be engraved with the panel and circuit designation (EX. PNL C, CIR #3).
- D. Weatherproof cover plates shall be cast and gasketed. Weatherproof cover plates shall be of the type where plug and cord are weatherproof with cover plate closed. Provide nameplate engraved with the panel and circuit designation.
- E. Nameplates shall be laminated black on white with characters cut through black lamination. Letters shall be a minimum 3/16 inch high, block type.

## 2.06 WIRE AND CABLE

- A. All conductors shall be soft-drawn copper, 97% conductivity minimum.
- B. All conductors No. 6 and larger shall have type "THW", "THHN", "MTW" and oil resistant 600 volt insulation.
- C. Power wiring shall be No. 12 minimum.
- D. Control wiring shall be No. 14 AWG stranded with type "THHN", "THW", "MTW" and oil resistant 600 volt insulation.
- E. All conductors within fluorescent fixtures shall have type AVA or RHH 600 volt insulation except fixtures with approved wireways for 75 degree C wire.
- F. Instrumentation cable shall be single or multiconductor shielded pairs as indicated. Conductors shall be No. 16 AWG coated copper per ASTM B 33, Class B strand.
  - 1. Insulation shall be 20 mils, cross-linked, polyethylene rated, 300 volts. Each conductor shall be color coded, and each pair shall be number coded.
  - 2. The assembled pairs shall have an aluminum/mylar tape shield with a tinned copper drain wire over it.
  - 3. The assembly shall be covered with a polyethylene jacket, 60 mils in thickness.
  - 4. The instrumentation cable shall be as manufactured by Okonite, Beldon, or approved equal.

## 2.07 PANELBOARDS

- A. Lighting and power panelboards shall be mounted as indicated on the plans with quantity and size of thermalmagnetic molded case circuit breakers indicated in panel schedules. Panels shall be 20 inches wide minimum with 4-inch minimum side gutters and 6-inch minimum top and bottom gutters. Breakers shall be bolt-on Type "E" frame minimum. Outdoor load circuits shall be protected by UL-approved ground fault circuit interrupters. All circuit breakers shall be UL listed having at least 10,000-ampere interrupting capacity. All busses shall be copper. Panels shall be provided with directories, which shall be typewritten and shall describe the load served.

## 2.08 RELAYS AND TIME SWITCHES

- A. Relays: Magnetically held relays shall have convertible contacts, and all relays shall be provided with one spare contact. Control relays shall have contacts rated 10-ampere inductive load, 250 volts, with coil voltage, number of poles, and pole arrangement as indicated on the plans.
- B. Time Switches: For control of night lighting through relays or contactors, use 120-volt, 6-cycle astronomical dial, single-pole, double-throw contacts in conjunction with ASCO Bulletin 1255-166 relays, Sangamo LA-12 or approved equal.
- C. Time Delay Relays: On-delay timers shall be solid state with coil voltage indicated. Off-delay timers shall be pneumatic type with coil voltage indicated. Slave relays shall be used where required to obtain additional contacts. All relays shall have contacts rated 5 amperes at 125 volts, AC, with tube type 8 pin base.

## 2.09 CONTROL SWITCHES AND INDICATING LIGHTS

- A. Control Switches: All control switches for mounting in motor control centers or motor starter enclosures shall be round, oiltight type, complete with legend plates and quantity of contact blocks required of the control function. All control switchers for mounting in control panels shall be square, push to actuate type. Switches shall be equipped with illuminated function buttons. Each function button shall be engraved to indicate function.
- B. Indicating Light: Indicating lights for mounting in motor control centers or motor starter enclosures shall be round, oiltight type, complete with color of lens indicated and legend plate. Lights for mounting in control panels shall be square with single or multi-function indication as indicated. All lights shall be 24-volt AC, and complete with 120-24-volt

transformer. All indicating lights shall be push-to-test or dimglow type (but not mixed). Provide 12 spare lamps per lamp type.

- C. Field-Mounted Control Stations: Field-mounted control stations shall be Crouse-Hinds EFS type or equal and shall be equipped with "lockout stop" pushbutton or selector switch with lockout stop feature.
- D. Limit Switches: Limit switches shall be waterproof double pole, double throw. Contacts shall be rated 5 amperes, 120-volt inductive load. Limit switch shall be mounted on all equipment indicated or specified and shall be equipped with proper mounting hardware and actuator to accomplish the function.

### PART 3 - EXECUTION

#### 3.01 CONDUIT

- A. Conduit shall be as indicated on the plans. Wiring, except as other wise noted, shall be in conduit. Conduits shall not be installed in water-restraining walls, except where specifically authorized. Exposed conduit shall be installed either horizontally or vertically and parallel to the planes of the walls of vertically and parallel to the planes of the walls of floor. All wiring runs in earth shall be in conduit and encased in concrete with a minimum of 3 inches of cover.
- B. Conduit runs shown entering the structures and within the structures are schematic only. The exact locations of such conduit runs shall be determined by the Contractor with the approval of the Engineer to suit the structural details. Conduit shall be the sizes noted on the plans. The smallest conduit allowed shall be 3/4-inch trade size, except where 1/2-inch conduit is specifically called for. Where conduit sizes are not shown, they shall be one size larger than the size required by code.
- C. All spare conduits shall be stubbed up to a flush coupling and plugged. Conduit shall run continuously between outlets and shall be provided with conduit junction boxes where connections are made, except in special pull boxes where indicated on plans.
- D. Liquidtight, flexible steel conduit may be used in runs from adjacent junction boxes to motors, benches, and in certain locations where, for structural or other reasons, it is impractical to use rigid conduit and where specific permission to do so has been granted by the Engineer. Flexible conduit shall be used with "JAKE" conduit fittings and bushings. All conduit stub-ups shall be PVC jacketed steel.
- E. Conduit runs in concrete slabs, concrete walls, and masonry walls shall be rigid galvanized steel. Conduit runs in attic spaces or non-masonry walls may be EMT. Conduit runs in hazardous (NEC 500) areas shall be threaded rigid steel.

- F. Conduit shall be concealed, unless otherwise indicated. All conduit runs exposed to view, except those under buildings, shall be installed parallel or at right angles to structural members, walls, or lines of the building.
- G. Conduit shall be kept at least 6 inches from the covering on hot water pipes, 18 inches from the covering on flues and breechings, and 3/4 inch from all water-bearing walls, unless shown otherwise on the plans. The open ends of all conduit seals during the construction of the building. Use approved conduit unions where union joints are necessary. Running threads will not be permitted.
- H. Exposed conduit, stubbing up through floor slab into bottom of exposed panels, cabinets, or equipment, shall be lined up, properly spaced, and shall be straight and plumb. Conduits shall be installed at sufficient depth below slab to eliminate any part of the bend above top of slab.
- I. Conduit placed against concrete or masonry above ground shall be fastened to the concrete with pipe straps or one-hole conduit clamps attached to the concrete by means of expansions anchors and bolts.
- J. Factory-made pipe straps shall be one-hole malleable iron or two-hole galvanized clamps for rigid steel conduits. Straps shall be PVC-coated for PVC-coated rigid conduits.
- K. Provide secure mounting facilities for all conduit. Conduit shall be supported at intervals as required by codes and not exceeding 10 feet and in all cases with a support not more than 3 feet from the outlet and at any point where it changes in direction. Wire, perforated strap, or plumber's tape shall not be used in the support of conduit. Conduit shall not be secured to suspended ceiling hanger wires or to the suspended ceiling structure.
- L. Pipe hangers for individual conduits shall be factory made, consisting of a pipe ring and threaded suspension rod. The pipe ring shall be malleable iron, split and hinged, or shall be springable wrought steel. Rings shall be bolted to or interlocked with the suspension rod socket. Rods shall be 3/8 inch for 2-inch conduit hangers and smaller and shall be 1/2 inch for 2-1/2 inch conduit hangers and larger.
- M. Hanger straps, rods, or pipe supports under concrete shall be attached to inserts set at the time the concrete is poured. Under wood use bolts, lag bolts, or lag screws; under steel joints or trusses, use beam clamps.
- N. Where conduit passes from one type of construction to another or where there is a possibility of dissimilar movements, a suitable flexible or expansion device shall be installed. Expansion couplings shall be provided wherever conduits cross expansion joints or for continuous runs in excess of 100 feet, except when embedded in concrete. Expansion fitting shall have bonding jumper.

- O. Junction or pull boxes shall be provided for pulling conductors due to excessive number of bends or length of conduit runs.
- P. A nylon pull cord of 200-pound strength shall be installed in all empty conduits.

### 3.02 CONDUIT FITTINGS AND OUTLET BOXES

- A. Cast, non-ferrous fittings shall be installed for all exposed conduits including fittings for switches and receptacles. Fittings installed in pipe and filter gallery or exterior to buildings shall have a PVC coating bonded to the surface and a PVC sleeve extended from all hubs. Stainless-steel screws shall be used to attach cover to conduit fitting.
- B. All outlet boxes that finish to an exposed concrete block surfaces shall have 1-1/2 inch deep tile rings and shall be set to allow concrete block facing over the ring to frame the opening. Tile rings shall not be grouted into exposed concrete block walls. Center outlet in course of concrete block. Standard plaster rings will not be accepted.
- C. Unless otherwise specified or noted on the plans, boxes for the various outlets shall be as follows:
  - 1. For light outlet boxes, use minimum of 4 inches square, 1-1/2 inches deep, equipped with plaster ring and fixture-supporting device as required by the unit installed.
  - 2. For wall switch outlets, use 4-inch boxes with single or two-gang boxes with gang plaster rings for more than two switches, unless noted otherwise on the plans.
  - 3. For convenience outlets, use 4-inch boxes with single-gang plaster rings. All conduit fittings, sealing devices, junction boxes, and devices used in Hazardous areas shall be UL approved and as manufactured by Crouse-Hinds or Appleton.

### 3.04 CONDUCTORS

- A. Conductors No. 2 AWG and smaller shall be hand pulled. Larger conductors may be machine pulled with tension monitored. Wire lubricants shall be UL approved.
- B. Color Code:
  - 1. Wire and cable shall be factory color coded by integral pigmentation with a separate color for each phase and neutral. On conductors larger than No. 8 AWG color tape or colored plastic bands will be permitted.
  - 2. Each system shall be color-coded and shall have it maintained throughout.

<u>Phase</u>	<u>120/208 volts</u>	<u>277/480 volts</u>
--------------	----------------------	----------------------

A	Black	Brown
B	Red	Orange
C	Blue	Yellow
Neutral	White	White
Ground	Green	Green

Note: All low "DC" and "AC" (below 100v) voltages and signals shall be grounded separately from above power grounds. 600 volt conductors, No. 8 AWG and larger, shall be terminated spliced with compression type connectors and insulated with three layers of UL approved vinyl insulating tape. 600 volt conductors, No. 10 AWG and smaller shall be spliced with pre-insulated coil spring type connectors. Terminations and splices in all motor connection boxes shall be made with compression type connectors with bolt on lugs.

3. Termination splices shall be insulated with two varnished cambric tape with three-layer overlap of a high temperature, UL approved, tape.
4. Control conductors shall be spliced with pre-insulation crimp type connectors and terminated with split tongue pre-insulated, crimp type connectors.
5. Splices and terminations of instrument cable shall be with pre-insulated crimp type connectors. Shields shall be electrically continuous at spliced joints with two layers of UL approved electrical insulating tape over splices. Connectors for terminations shall be split tongue or ring type. Shields shall be grounded at the receiving end of cables.
6. Splices in manholes and underground pull boxes for 600 volt conductors and below shall be water-proofed using encapsulating epoxy resin splice kits.

### 3.05 GROUNDING

- A. The grounding system shall be continuous throughout the facility. All metallic, non-current conducting parts of the electrical system shall be grounded.
- B. Metallic raceways shall be terminated with double lock nuts and bushings. Conduits terminating in switch boards and motor control centers shall be equipped with grounding bushing and connected to equipment ground bus.
- C. Non-metallic conduits shall contain a green insulated copper grounding conductor. Ground conductor shall be securely connected to equipment and associated enclosures.
- D. Grounding continuity for underground duct banks may be maintained by the installation of a bare copper conductor installed in the concrete envelope. Ground continuity shall be maintained through all manholes and pull boxes. All metal parts in manholes shall be connected to the grounding system.

- E. Ground rods shall be 3/4-inch copper-clad steel. Locations shall be as shown on the plans; length of rods shall be as required to obtain a maximum ground resistance of 5 ohms. Top of ground rod shall be fitted with a coupling and steel driving stud.
- F. Connection to ground conductors shall be exothermic welded where concealed and shall be bolted pressure type where exposed. Connectors shall be of copper alloy. Grounding cable shall be copper and sized in accordance with Code requirements, when not sized on the plans.

### 3.06 EQUIPMENT PADS AND ANCHORING

- A. All floor standing equipment shall be mounted on raised concrete pads. Pad size and height shall be as indicated on the plans. Pads not indicated shall extend out 3 inches beyond enclosure and shall be 3 inches above finished grade.
- B. All equipment shall be securely anchored to pads. Anchorage shall be in accordance with OSHA and other applicable standards for earthquake protection.

### 3.07 EQUIPMENT AND SYSTEM IDENTIFICATION

- A. All control and indicating devices for equipment shall be identified with laminated plastic nameplates. Nameplates shall identify equipment and/or function. Nameplates shall be provided for all panel boards, control panels, special outlets, pullboxes, disconnects, motors, fans and chart recorders. Three phase outlets shall be identified with circuit origin and phase identification.
- B. All control devices locate within control panels shall be identified with permanent tags. Embossed, stick-on, plastic tags shall not be used. Terminal strips shall be identified by imprinted markers in center or under terminal strip.
- C. All cables and all conductors shall be identified at each termination. All circuits and all multi-conductor cables shall be identified in each manhole and pull box. Individual conductors that make up a circuit shall be bundled and laced together with imprinted heat shrink tubing or imprinted plastic coated cloth. Circuit and multi-conductor cable identification shall be made with imprinted metal bands or tags.
- D. All control wiring shall be color-coded and color continuity maintained throughout the system. Provide minimum of (6) different colors for field wiring. Control circuit color-coding is as follows:

<u>Color</u>	<u>Service</u>
Red	Hot lead (usually to stop P.B.)
Yellow	Common return

Brown	Main coil (usually to start P.B.)
Blue	Reset coil
Orange	Trip coil

- E. All conductors shall be marked at both ends with shrink fit markers which clearly display a computer generated circuit number at each end of the conductor.

### 3.08 EARTHWORK

Excavation and backfill necessary for proper installation of the electrical work shall conform to the provisions of the Section of earthwork in these specifications.

### 3.09 CUTTING AND REPAIRING

Where it becomes necessary to cut into existing work for the purpose of making electrical installations, core drills shall be used for making circular holes. Other demolition methods for other cutting or removing shall be approved by the Engineer prior to starting the work. The Contractor shall repair all damage caused thereby to the satisfaction of the Engineer.

### 3.10 DISSIMILAR METALS

Wherever dissimilar metals come in contact, the Contractor shall isolate these metals as required with neoprene washers or gaskets. Where fastening aluminum items, stainless-steel bolts shall be used. Wherever steel and aluminum join, isolation bushings shall be used to separate these dissimilar metals and grounding jumpers shall be provided across these joints.

### 3.11 ENERGIZED EQUIPMENT

The Data Center will remain on-line 24-hours per day, (7) days per week during the installation and testing of the new equipment. The Contractor must be experienced in working on an energized bus while installing the new conduit and cable into the rear of the existing and new switchboards. The existing switchboards have adequate workspace in the rear, and are of the draw-out, or rack-out construction. Comply with N.F.P.A. 70 E, and O.S.H.A. 1910.335 safeguards for matting/blankets shall be used, and the live bus must be covered with insulating rubber matting during all work on the energized bus. Insulated O.S.H.A. 1910.333 class "00" 500v gloves, eye protection, and clothing must be used. All tools used on the energized bus must be 1000v insulated O.S.H.A. #CFR 1910.269 and #CFR 1910.331-335, and ASTM F 1505. Field test all adjustable circuit breaker trips for coordination verification and testing.

END OF SECTION

GENERAL ELECTRICAL  
16000 - 21

**5B: SECTION 16206 – STATIC UNINTERRUPTIBLE POWER SUPPLY**

**SECTION 16206**  
**STATIC UNINTERRUPTIBLE POWER SUPPLY**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. This Section describes a system of two (2) three-phase, on-line, static-type, UPS's installations, input harmonics reduction, rectifier-charger, battery disconnect device, inverter, static bypass transfer switch, remote UPS monitoring provisions, Solenoid Key Release Units for interface with an external bypass and distribution switchboard by others, and a system paralleling cabinet for two (2) UPS's.
- B. The Project scope involves installation of two (2) new stand-alone 150kVA UPS's. With this installation, the site will replace existing UPS system and will provide for future 2N UPS power system. Project execution will require installation and commissioning of a complete two-UPS system, integration of new Li-Ion batteries with battery isolation switch (BIS) and connection to new paralleling cabinet.

**1.02 UPS SYSTEM DESCRIPTION**

- A. Stand alone double conversion UPS integrated with new Li-Ion Battery System. Provisions shall be made to add the UPS in a 2N configuration using the new Li-Ion battery system. UPS module shall have a single input power feed for the rectifier and a separate input power feed for static bypass from the maintenance bypass switchboard.

**1.03 STANDARDS**

- A. The UPS unit shall be listed to Standard UL1778 for applications by a nationally recognized listing agency.
- B. New Li-Ion Battery system will be incorporated into the new UPS module.
- C. IEEE 450 recommended Practices for Maintenance, Testing and Replacement.
- D. Compliance with local code authority having jurisdiction (AHJ).

**1.04 EQUIPMENT SCHEDULE**

**1.05 DEFINITIONS**

- A. EMI: Electromagnetic interference.
- B. LCD: Liquid-crystal display.

- C. LED: Light-emitting diode.
- D. MIB: Maintenance Isolation Breaker
- E. SIB: System Isolation Breaker
- F. THD: Total harmonic distortion.
- G. UPS: Uninterruptible power supply.

#### 1.06 PROPOSED SUBSTITUTIONS

- A. For purposes of substitution, include the following information:
  - 1. Statement of compliance with UPS Specifications.
  - 2. Detailed list of exceptions and alternates to these specifications, and a list of 150kVA UPS installation experience, including contact person and phone numbers.
  - 3. UPS Service Capabilities local to Orange County, CA. including trained service on the products proposed, and local parts storage.
  - 4. Equipment footprints, heights, and access requirements.
  - 5. Detailed system Single line diagram showing protective and switching devices, lug sizes, kA bracing of the bus and devices, etc.
  - 6. Input Current Harmonic Distortion based on operation at 25, 50, 75, and 100% of rated capacity with and without input filters.
  - 7. Input power factor through the load spectrum information with and without input filter.
  - 8. UPS System efficiency at 25, 50, 75, and 100% of rated capacity.
  - 9. Complete bill of materials.
  - 10. Equipment leadtime.

#### 1.07 SUBMITTALS

- A. Product Data: Include data on features, components, ratings, and performance for uninterruptible power supply component indicated. Complete submittals shall be received by the owner and engineer of record within 14 days from NTP to the contractor.
- B. Shop Drawings: Detail assemblies of equipment indicating dimensions, weights, components, and location and identification of each field connection. Show access, workspace, and clearance requirements; details of control panels.
- C. Wiring Diagrams: Detail internal and interconnecting wiring; and power, signal, and control wiring. Differentiate between field-installed and factory-installed wiring and components.
- D. Factory Test Reports: Comply with specified requirements.
- E. Field Test Reports: Indicate test results compared with specified performance

requirements, and provide justification and resolution of differences if values do not agree.

- F. Maintenance Data: For UPS units to include in maintenance manuals.
- G. Lists of spare parts and replacement components recommended being stored at Project site for ready access.
- H. Detailed operating instructions covering operation under both normal and abnormal conditions.
- I. Warranties: Special warranties specified in this Section.

#### 1.08 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is an authorized representative of UPS manufacturer for both installation and maintenance of units required for this Project.
- B. Manufacturer Qualifications: A firm who maintains a service center capable of providing training, parts, and emergency maintenance and repairs for equipment at Project site with four hours maximum response time.
- C. Testing Agency Qualifications: An independent testing agency with experience and capability to conduct testing indicated without delaying the Work, as documented according to OSHA criteria for accreditation of testing laboratories, 29 CFR 1910.7; or a full member company of the InterNational Electrical Testing Association.
- D. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association or the National Institute for Certification in Engineering Technologies to supervise on-site testing specified in Part 3.
- E. Source Limitations: Obtain the UPS and associated components specified in this Section from a single manufacturer with responsibility for entire UPS installation.
- F. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
- G. UPS Units: Listed and labeled under UL 1778.
- H. Mark UPS components as suitable for installation in computer rooms according to NFPA 75.

## 1.09 DELIVERY, STORAGE, AND HANDLING

- A. Deliver equipment in fully enclosed vehicles after specified environmental conditions have been permanently established in spaces where equipment is to be placed.
- B. Store equipment in spaces with environments controlled within manufacturers' ambient temperature and humidity tolerances for non-operating equipment.

## 1.10 WARRANTY

- A. Warranties, General: Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Provide a price option for recommended Preventive Maintenance (PM) during the first two years of operation under warranty period, including batteries.
- C. Provide a price option for a spare part kit, including air filters, fans, fuses, circuit boards, covering at least 80% of most common repair and maintenance requirements.

## 1.11 OPERATION AND MAINTENANCE MANUALS:

- A. Submit complete 3-sets (2 hard copies, 1 electronic copy) of the following:
  - 1. UPS and associated equipment O&M to include UPS detailed operation procedures including start-up, static bypass, LCD panel display setting, UPS system setting, Inverter output settings, etc.
  - 2. UPS system preventive maintenance procedures, including testing procedures.
  - 3. UPS battery system maintenance procedures including testing.
  - 4. DC bus operational and maintenance procedures.
  - 5. Control panel.
  - 6. Warranty related contacts.

## 1.12 EXTRA MATERIALS

## PART 2 - PRODUCTS

### 2.01 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include,

but are not limited to, the following: Liebert Corporation, or equal, previously approved by the Engineer and County.

- B. Products: Subject to compliance with requirements, provide products by one of the following: Liebert Corporation, or equal, previously approved by the Engineer and County.

## 2.02 FUNCTIONAL DESCRIPTION

- A. Automatic operation includes the following:

1. Normal Conditions: Supply the load with ac power flowing from the normal ac power input terminals, through the rectifier-charger and inverter, with the battery connected in parallel with the rectifier-charger output.
2. Abnormal Supply Conditions: If normal ac supply deviates from specified and adjustable voltage, voltage waveform, or frequency limits, the battery supplies energy to maintain constant, regulated inverter ac power output to the load without switching or disturbance.

If normal power fails, energy supplied by the battery through the inverter continues supply-regulated ac power to the load without switching or disturbance. When power is restored at the normal supply terminals of the system, controls automatically synchronize the inverter with the external source before transferring the load. The rectifier-charger then supplies power to the load through the inverter and simultaneously recharges the battery.

If battery becomes discharged and normal supply is available, the rectifier charger charges the battery. On reaching full charge, the rectifier-charger automatically shifts to a float-charge mode.

If any element of the UPS system fails and power is available at the normal supply terminals of the system, the static bypass transfer switch switches the load to the normal ac supply circuit without disturbance or interruption of supply.

If a fault occurs in the system supplied by the UPS and current flows in excess of the overload rating of the UPS system, the static bypass transfer switch operates to bypass the fault current to the normal ac supply circuit for fault clearing.

When the fault has cleared, the static bypass transfer switch returns the load to the UPS system.

If battery is disconnected, the UPS continues to supply power to the load with no degradation of its regulation of voltage and frequency of the output bus.

B. Manual operation includes the following:

1. Turning the inverter off causes the load to be transferred by the static bypass transfer switch directly to the normal ac supply circuit without disturbance or interruption.
2. Turning the inverter on causes the static bypass transfer switch to transfer the load to the inverter.
3. Maintenance Bypass/Isolation Switch Operation: An external maintenance bypass switch will be provided with the Output Distribution Switchboard. UPS Vendor shall provide provisions for an external solenoid key release unit (SKRU) to interlocked bypass breaker so it cannot be operated unless static bypass transfer switch is in the bypass mode. Device provides manual selection between the following two conditions without interrupting supply to the load during switching:
  - a. Maintenance Bypass/Isolation: Load is supplied, bypassing the UPS. UPS ac supply terminals are energized to permit operational checking, but system load terminals are isolated from the load.
  - b. Normal: Normal UPS ac supply terminals are energized and the load is supplied through either the static bypass transfer switch and UPS rectifier-charger and inverter, or the battery and the inverter.

2.03 UPS UNIT RATINGS

- A. Continuous rating: Unit module output ratings of 150kVA.
- B. Input and output: 480V, 3phase, 3 wire plus ground.
- C. Static and static bypass switch: 480V, 3phase, 3 wire plus ground
- D. Input and output frequency: 60hz.
- E. Fault current withstanding: Minimum 65kA

2.04 SERVICE CONDITIONS

- A. Environmental Conditions: UPS shall be capable of operating continuously in the following environmental conditions without mechanical or electrical damage or degradation of operating capability, except battery performance.
  1. Ambient Temperature for Electronic Components: 32 to 104 deg F (0 to 40 deg C).
  2. Relative Humidity: 0 to 95 percent, non-condensing.
  3. Operating - To 4,000 ft. (1,219m) above Mean Sea Level without derating. Consult factory for derating above 4,000 ft. (1,219m) elevation.
  4. Storage/Transport - To 50,000 ft. (15,000m) above Mean Sea Level.
  5. Altitude: Sea level to 4000 feet (1220 m).

## 2.05 PERFORMANCE REQUIREMENTS

### A. Performance Requirements:

The maximum working voltage, current, and di/dt of all solid-state power components and electronic devices shall not exceed 75% of the ratings established by their manufacturer. The operating temperature of solid-state component sub-assemblies shall not be greater than 75% of their ratings. Electrolytic capacitors shall be computer grade and be operated at no more than 95% of their voltage rating at the maximum rectifier charging voltage.

1. Voltage Range: +10%, -15% of nominal (no battery discharge at -20%).
2. Frequency Range:  $\pm 5\%$ .
3. Rectifier Walk-In/Inrush Current Limiting: 20% to 100% of full rated load over 15 seconds (adjustable).
4. Sub-Cycle Magnetizing Inrush: Not to exceed 5-8 times normal full load input current with input isolation transformer and optional input filter.
5. Power Factor: Minimum 0.85 lagging at full load with nominal input voltage (may be increased to 0.92 lagging with optional input filter).
6. 2-Step Rectifier Input Current Limit:
  - a. Step 1 - Factory set at 115% (adjustable 100-125%) normal full load input current
  - b. Step 2 - Factory set at 100% (adjustable 85-125%) for on-generator operation
7. 2-Step Battery Charge Current Limit:
  - a. Step 1 - Factory set at 10% (adjustable 1-25%) maximum battery discharge current.
  - b. Step 2 - Factory set at 1% (adjustable 1-25%) maximum battery discharge current.
8. Reflected Current Distortion: A standard 12-pulse rectifier shall reduce reflected input current distortion to less than 9% at full load and less than 4% with optional input filter.
9. Surge Protection: Sustains input surges without damage per criteria listed in ANSI C62.41-1980.
10. AC Output Load Rating: 104% continuous load rating at 104°F (40°C) for any combination of linear and non-linear loads at the capacity of the connected modules or rating of the system control console, whichever is less. 10 times continuous load rating for three cycles without closing the bypass breaker. Load rating limited by system circuit breaker characteristics.
11. Voltage Regulation:  $\pm 0.5\%$  for balanced load,  $\pm 2\%$  for 50% unbalanced load.
12. Voltage Adjustment Range:  $\pm 5\%$  manually.

13. Automatic Line Drop Compensation: Adjustable 0 to +5% of nominal voltage.
14. Frequency Regulation: 0.1%.
15. Efficiency: Defined as output kW/input kW at rated lagging load power factor. Not less than 93% for 480/480 VAC or 600/600 VAC input/output; Optional input filter efficiency loss not to exceed 0.5%.
16. Phase Imbalance:
  - a. Balanced loads  $120^\circ \pm 1^\circ$ ,
  - b. 50% unbalanced loads  $120^\circ \pm 3^\circ$ .
17. Unbalanced Voltage Regulation (RMS Voltage Balance, Each Phase to the Average):
  - a. Balanced Load,  $\pm 1\%$  from the arithmetic average of the 3 phases.
  - b. 20% Unbalanced Load,  $\pm 1\%$  from the arithmetic average of the 3 phases.
  - c. 50% Unbalanced Load,  $\pm 2\%$  from the arithmetic average of the 3 phases.
18. Voltage Transients (Average of all Three Phases):
  - a. 20% Load Step  $\pm 4\%$
  - b. 50% Load Step  $\pm 5\%$
  - c. 100% Load Step  $\pm 8\%$
  - d. Loss of/return to AC input power  $\pm 1\%$
  - e. Transfer to/from Bypass  $\pm 4\%$

**B. Output Voltage Transients**

1. Voltage transients shall be limited to a maximum deviation from nominal system output volts of plus or minus 8% with recovery to within 1% of the nominal output voltage within 50 milliseconds for each of the following conditions. Limits shall apply to any UPS load within the UPS rating, and frequency shall be maintained at 60 Hertz plus or minus 0.1 Hertz. The system shall not transfer to bypass under these conditions (except item 3):
  - a. 100% load step.
  - b. Loss or return of AC input power, momentary sags, surges or spikes on the input to the UPS (all three phases or single phase).
  - c. Uninterrupted transfer of the critical load to and from the UPS output and bypass power line (manually initiated or automatic).
  - d. Trip a 10% rated ampere branch circuit breaker or clear a 10% rated fuse with a single-phase or three-phase fault.

**C. Voltage Harmonic Distortion:**

1. Maximum 5% RMS total, maximum 3% any single harmonic (linear load).
2. Maximum 5% RMS total for up to 100% non-linear load.
3. Overload at full Output Voltage with  $\pm 2\%$  voltage regulation:
  - a. 104% continuously.

- b. 125% of full load for 10 minutes
- c. 150% of full load for a minimum of 30 seconds.
- 4. Current Limit: 155% full load current.
- 5. Fault Clearing: Sub-cycle current of at least 300% but not more than 500% of normal full load current (when bypass is not available).

D. Grounding:

The AC output neutral shall be electrically isolated from the UPS chassis. The UPS chassis shall have an equipment ground terminal. A terminal for bonding the system neutral to facility service entrance ground (customer-provided cable) shall be provided.

E. Environmental Conditions:

- 1. The UPS shall be able to withstand the following environmental conditions without damage or degradation of operating characteristics:
  - a. Operating Ambient Temperature  
UPS 32°F to 104°F (0°C to 40°C) without derating.  
(Consult factory for performance derating over 104°F; 40°C.)
  - b. Battery 77°F (25°C), ±5°F (±3°C).
  - c. Storage/Transport Ambient Temperature  
-4°F to 158°F (-20°C to 70°C).
  - d. Relative Humidity  
0 to 95%, non-condensing.
  - e. Altitude
    - 1) Operating - To 4,000 ft. (1,219m) above Mean Sea Level without derating. Consult factory for derating above 4,000 ft. (1,219m) elevation.
    - 2) Storage/Transport - To 50,000 ft. (15,000m) above Mean Sea Level.
  - f. Audible Noise  
Noise generated under any typical condition shall not exceed 75 dBA measured 5 ft. (1.5m) from the UPS.

## 2.06 SYSTEM COMPONENTS, GENERAL

- A. Electronic Equipment: Solid-state devices using hermetically sealed, semiconductor elements. Devices include rectifier-charger, inverter, static bypass transfer switch, and system controls.
- B. Enclosures: Comply with NEMA 250, Type 1, unless otherwise indicated.
- C. Control Assemblies: Mount on modular plug-ins, readily accessible for maintenance.

- D. Surge Suppression: Protect internal UPS components from surges that enter at each ac power input connection including main disconnect and static bypass transfer switch. Protect rectifier-charger, inverter, controls, and output components.
- E. Additional Surge Protection: Protect internal UPS components from low-frequency, high-energy voltage surges described in IEEE C62.41. Design the circuits connecting with external power sources and select circuit elements, conductors, conventional surge suppressors, and rectifier components and controls so input assemblies will have adequate mechanical strength and thermal and current-carrying capacity to withstand stresses imposed by 40-Hz, 180 percent voltage surges described in IEEE C62.41.
- F. Maintainability Features: Mount rectifier-charger and inverter sections and static bypass transfer switch on modular plug-ins, readily accessible for maintenance.
- G. Seismic-Restraint Design: UPS assemblies, subassemblies, and components; and fastenings and supports, mounting, and anchorage devices for them, shall be designed and fabricated to withstand static and seismic forces in any direction.
- H. UPS Cabinet Ventilation: Redundant fans or blowers draw in ambient air near the bottom of the cabinet and discharge it near the top rear.
- I. Output Circuit Neutral Bus, Conductor, and Terminal Ampacity: Rated phase current.
- J. Redundant power supplies for the UPS system. Power to the control power supplies shall originate from bypass input and UPS system output. In the event one of the power supplies fail, the module shall initiate and alarm (locally and remotely) and shall continue to operate in normal mode.
- K. UPS system shall be front access only with no requirement for rear or side access for maintenance, testing or IR scanning.

## 2.07 RECTIFIER-CHARGER

- A. Capacity: Adequate to supply the inverter during full-rated output load conditions and simultaneously recharge the battery from fully discharged condition to 95 percent of full charge within 10 times the rated discharge time for duration of supply under battery power at full load.
- B. Output Ripple: Limited by output filtration to less than 0.5 percent of rated current, peak to peak.
- C. Rectifier-Charger Control Circuits: Immune to frequency variations within rated frequency ranges of normal and emergency power sources. Response Time: Field adjustable for maximum compatibility with local generator-set power source.

- D. Battery Float-Charging Conditions: Comply with battery manufacturer's written instructions for battery terminal voltage and charging current required for maximum battery life.

## 2.08 INVERTER

- A. Description: Pulse-width modulated, with sinusoidal output. Include a bypass phase synchronization window adjustment to optimize compatibility with local engine generator-set power source.

## 2.09 STATIC BYPASS TRANSFER SWITCH

- A. Description: Solid-state switching device providing uninterrupted transfer. An electrically operated circuit breaker automatically provides electrical isolation for the switch.
- B. Switch Rating:
  - 1. Continuous-Duty rated full-load current of the UPS, minimum.

## 2.10 BATTERY SYSTEM

- A. Provide two new Li-Ion batteries and cabinets per UPS (total of four).

## 2.11 UPS CONTROL AND INDICATION

- A. Description: Group displays, indications, and basic system controls on a common control panel on front of UPS enclosure.
- B. Minimum displays, indicating devices, and controls include those in lists below. Provide sensors, transducers, terminals, relays, and wiring required to support listed items. Alarms include an audible signal and a visual display.
- C. Indications: Plain-language messages on a digital LCD or LED.
  - 1. Quantitative indications shall include the following:
    - a. Input voltage, each phase, line to line.
    - b. Input current, each phase, line to line.
    - c. Bypass input voltage, each phase, line to line.
    - d. Bypass input frequency.
    - e. System output voltage, each phase, line to line.
    - f. System output current, each phase.
    - g. System output frequency.
    - h. DC bus voltage.

- i. Battery current and direction (charge/discharge).
  - j. Elapsed time-discharging battery.
  - k. Phase angle difference (leading or lagging) between inverter and bypass source.
- 2. Basic status condition indications shall include the following:
  - a. Normal operation.
  - b. Load-on bypass.
  - c. Load-on battery.
  - d. Inverter off.
  - e. Alarm condition exists.
- 3. Alarm indications shall include the following:
  - a. Bypass ac input overvoltage or undervoltage.
  - b. Bypass ac input overfrequency or underfrequency.
  - c. Bypass ac input and inverter out of synchronization.
  - d. Bypass ac input wrong-phase rotation.
  - e. Bypass ac input single-phase condition.
  - f. Bypass ac input filter fuse blown.
  - g. Internal frequency standard in use.
  - h. Battery system alarm.
  - i. Control power failure.
  - j. Fan failure.
  - k. UPS overload.
  - l. Battery-charging control faulty.
  - m. DC over-voltage.
  - n. Input overvoltage or undervoltage.
  - o. Input transformer overtemperature.
  - p. Input circuit breaker tripped.
  - q. Input wrong-phase rotation.
  - r. Input single-phase condition.
  - s. Approaching end of battery operation.
  - t. Battery undervoltage shutdown.
  - u. Maximum battery voltage.
  - v. Inverter fuse blown.
  - w. Inverter overtemperature.
  - x. UPS overload shutdown.
  - y. Inverter current limit.
- 4. Dry-form "C" contacts shall be available for remote indication of the following conditions:
  - a. UPS on battery.
  - b. UPS on-line.

- c. UPS load-on bypass.
- d. UPS load on external bypass.
- e. Bypass not available.
- f. UPS in alarm condition.
- g. DC Over-Voltage (adjustable).

## 2.12 MAINTENANCE BYPASS/ISOLATION SWITCH INTERFACE

- A. Description: Solenoid Key Release Unit and interface provisions to allow for bypass of the UPS system for testing and maintenance through output distribution switchboard (specified elsewhere). Solenoid Key Release Unit shall release Kirk Key when the Bypass/Isolation procedure is initiated, and when the static switch bypass breaker/contactors is closed. UPS system shall monitor state of System Isolation Breaker (SIB) and Maintenance Isolation Breaker (MIB) in the output distribution boards. Re-transfer to static switch and inverter shall be prevented until Kirk Key is returned to the SKRU.

## 2.15 UPS MONITORING BY REMOTE NETWORK

- A. Connectors and network interface units for data transmission via 10/100/1000 megabit Ethernet over category 5e unshielded twisted pair cabling or fiber optics. Network monitoring card shall allow for monitoring of all UPS status and alarm indications through a standard web browser.

## 2.18 SOURCE QUALITY CONTROL

- A. Factory test complete UPS, including downstream static switches before shipment. Include the following tests:
  - 1. Functional test and demonstration of all functions, controls, indicators, sensors, and protective devices.
  - 2. Full-load test.
  - 3. Transient-load response test.
  - 4. Overload test.
  - 5. Power failure test.
- B. Observation of Test: Give 14 days' advance notice of tests and provide opportunity for Owner's representative to observe tests at Owner's option.
- C. Report test results. Include the following data:

Description of input source and output loads used. Describe actions required to simulate source load variation and various operating conditions and malfunctions. List of indications, parameter values, and system responses considered satisfactory for each test action. Include tabulation of actual observations during test. List of instruments and equipment used in factory tests.

## 2.19 FACTORY TESTING

- A. The UPS module shall be operated in the factory at full load for a burn-in heat run of 8 continuous hours prior to witness testing. Input and output Voltages, currents, and harmonics shall be monitored and recorded throughout the testing every 30 minutes.
- B. Submit standard factory test procedures for the engineer review 3 weeks prior to the scheduled testing. The engineer will make modifications to the procedures up to one week prior to testing. As a minimum, perform the following tests. Use a high-speed disturbance analyzer (HSDA) with time and date stamp for all parameters:
  - 1. Each module steady-state operation at 0, 25% to 50% and 100% of full load. Measure input and output Voltages, currents, power factor, and THD.
  - 2. If equipment is equipped with input power filter, test at what load the filter isolates itself from the system. Measure the input Voltage, current, pf and THD when the filter is connected and when it is not connected. Measure the output Voltage and current.
  - 3. Step load and unload of 25% to 50% and 50% to 100% load. Measure transients with HSDA.
  - 4. Full load manual transfer to and from static bypass. Measure output Voltage transients on all three phases with HSDA at full load.
  - 5. Test system auto-retransfer after simulated fault.
  - 6. Control Power failure simulation at full load. Measure output Voltage transients on all three phases.
  - 7. Test all the alarms indicated in this specifications.

## PART 3 - EXECUTION

### 3.05 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage the services of a factory-authorized service representative to supervise UPS installation, startup, and preliminary testing and adjustment and to participate in final tests, inspections, and adjustments.
- B. Electrical Tests and Inspections: Perform tests and inspections according to manufacturer's written instructions and as listed below to demonstrate condition and performance of each component of the UPS:
  - 1. Inspect interiors of enclosures, including the following:

- a. Integrity of mechanical and electrical connections.
  - b. Component type and labeling verification.
  - c. Ratings of installed components.
- 2. Test manual and automatic operational features and system protective and alarm functions.
- 3. Test communication of status and alarms to remote monitoring equipment.
- 4. Electrical Tests and Inspections: Perform tests and inspections listed below according to manufacturer's written instructions and as listed below to demonstrate condition and performance of each UPS:
- 5. Inspect interiors of enclosures, including the following:
  - a. Integrity of mechanical and electrical connections.
  - b. Component type and labeling verification.
  - c. Ratings of installed components.
  - d. Load the system using a variable-load bank to simulate kilowatts, for the unit's rating. Use instruments calibrated, within the previous six months and according to NIST standards.
  - e. Simulate malfunctions to verify protective device operation.
  - f. Test duration of supply on emergency, low-battery voltage shutdown, and transfers and restoration due to normal source failure.
  - j. Test remote status and alarm panel functions.

C. Record of Tests and Inspections:

Maintain and submit documentation of tests and inspections, including references to manufacturers' written instructions and other test and inspection criteria. Include results of tests, inspections, and retests.

### 3.06 DEMONSTRATION AND TRAINING

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain the UPS.
- B. Train Owner's maintenance personnel on procedures and schedules for starting and stopping, troubleshooting, servicing, and maintaining equipment.
- C. Provide minimum of 8-hours of training for each equipment and system. Manufacturer shall add alternate pricing for additional training / follow up sessions as required.

### 3.07 TESTING AND COMMISSIONING

- A. Contractor shall provide detailed Operational Procedures (MOP) for all the testing and commissioning effort to avoid any interruption to the existing data center operation. MOP shall be reviewed and approved with facility manger and engineer of record. MOPs shall have detailed sequence of operation and shall

provide detailed temporary power and sources. Contractor shall review the testing and commissioning specifications and include in their base bid price as part of UPS system installation. The contractor shall provide all load banks and cables for a full load on-site test of the system prior to connection to Data Center loads.

- B. Engage the services of UPS manufacturer's factory-authorized service representative periodically through functional performance testing operations for repairs, adjustments, and consultations.
- C. Documentation: Record test point and sensor locations, instrument settings, and circuit and load conditions for each monitoring summary and power disturbance recording. Correlate simultaneous recordings made on UPS input and load circuits. Analysis of Recorded Data and Report: Review and analyze test observations and recorded data and submit a detailed written report.

END OF SECTION

**5C: SECTION 16440 – SWITCHBOARDS**

SECTION 16440  
SWITCHBOARDS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provisions of Division 01 apply to this section
- B. Section Includes:
  - 1. Furnish, install and connect main switchboard, including metering facilities as required by utility company.
  - 2. Main switchboards shall be complete with pull, service, and distribution sections.
  - 3. Protective devices in main switchboard shall be furnished with a minimum symmetrical short-circuit interrupting rating, as provided by electric utility company.
  - 4. Provide installation detail and seismic anchorage notes for switchboards.
- C. Related Sections:
  - 1. Section 03300: Cast-In-Place Concrete.
  - 2. Section 16010: Basic Electrical Requirements.
  - 3. Section 16050: Basic Electrical Materials and Methods.
  - 4. Section 16120: Low Voltage Wires (600 Volt AC)
  - 5. Section 16405: Service Entrance.
  - 6. Division 25: Low Voltage Systems

1.02 SUBMITTALS

- A. Provide in accordance with Division 01.
- B. Shop Drawings:
  - 1. Include a front elevation indicating dimensions and locations of equipment on switchboard, make, kind and size or capacity of equipment and bussing, location of each service conduit entering switchboard, barriers, nameplate inscriptions, finish, total weight and size of switchboard and locations and sizes of anchor bolts.
  - 2. Contractor shall submit short-circuit and coordination studies signed and stamp by a registered electrical engineer. Studies shall be in accordance

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with IEEE guidelines. Contractor shall submit two copies of each study for Architect-Engineer review prior to ordering and installing any equipment.

3. Provide coordination study for main and branch circuit protective devices including transformers secondary protective devices. Study shall be recorded on log paper. The circuit protective devices shall be set based on the coordination study. A final written record of protective device settings shall be provided to Architect-Engineer.

## PART 2 - PRODUCTS

### 2.01 SWITCHBOARDS

- A. General Description: Switchboards shall be product of Siemens, Cutler-Hammer, General Electric, IEM, Square-D, or equal, and shall conform to the following requirements:

1. Complete assembly, including steel framing and covers, bus system, and breaker mounting, shall satisfy applicable provisions of UL 891 and NEMA PB-2 and the California Electrical Code for low-voltage distribution switchboards. Switchboards shall be furnished with UL labels.
2. Switchboards shall be floor standing, dead front, dead rear, line bussed, front operated and connected, circuit-breaker type, unless otherwise indicated and shall contain equipment indicated and specified. Switchboard shall be complete with pull, service, and distribution sections as required.
3. Required equipment shall be enclosed in fully interchangeable die formed steel sectional cabinets with top and bottom plates and required braces and gussets so that cabinets will be absolutely rigid, plumb and uniform in size. Each cabinet shall be a separate and independent unit with assembly holes die-stamped or jig drilled; openings for interconnections shall be so placed that any cabinet can be located in any position in assembly without drilling or cutting holes on job. Deliver switchboard to Project site in completely assembled sections and provide required assembly bolts and blanking plates. Front plates and doors shall be of not less than 12 gage furniture steel, completely removable, secured to cabinet with machine screws, with cup washers uniformly and symmetrically spaced. Provide hinged wire gutter covers for distribution sections. Equipment shall meet NEMA and UL standards. Provide auxiliary switches and shunt/UV trips on circuit breakers where required.
4. Main circuit breaker or main fusible switch shall be as follows:
  - a. Main circuit breakers shall be automatic, one-piece molded-case, trip-free, common trip, quick-make, quick-break, thermal-magnetic with solid state trips, bolted to bus with frame size and trip ratings as indicated on drawings. Voltage, amperage ratings and number of poles shall be as indicated on breakers. Main breaker shall

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provide a minimum short-circuit interrupting capacity as determined by utility company. Provide shunt-trip and integral ground fault devices, as indicated on drawings. Breakers shall be furnished with lockout provisions.

- b. Main fusible switch 800 amps or larger ampacity shall be high pressure contact, stored energy, quick-make/quick-break operation, with current limiting fuses, as indicated on Drawings. Provide shunt-trip, and integral ground fault devices, as indicated on Drawings. Were required, switches shall be motor operated and be furnished with an electrical trip mechanism piloted by output of ground fault sensing circuitry. Switch shall be furnished with lockout provisions.
5. Feeder circuit breakers shall be automatic, one-piece molded-case, trip-free, common trip, quick-make, quick-break, thermal-magnetic or solid state type bolted to bus, with handles clearly indicating tripped position. Breakers shall be furnished with a single handle with no tie-bar. Voltage, amperage, and number of poles shall be as indicated on Drawings. Breaker ratings shall be on handle or label. Breakers shall be furnished with lockout provisions approved by the State of California for padlocking and shall provide a minimum symmetrical short-circuit interrupting rating, as indicated on Drawings. Series rated circuit breaker combinations are not acceptable unless specifically specified.
6. Fusible feeder switches shall be quick-make, quick-break, voltage rating and number of poles as indicated on Drawings, with visible blades and dual horsepower ratings. Switch handles shall physically indicate on and off positions. Switches shall be lockable only in off position and accept 3 industrial type heavy-duty padlocks. Switch covers and handles shall be interlocked to prevent opening in on position. Provide means to permit authorized personnel to release interlock for inspection purposes. Switches shall be equipped with Class R current limiting fuses or dual element fuse of size and capacity indicated on Drawings.
7. Utility metering provisions shall meet requirements of serving utility and shall be furnished with necessary fittings.
8. Provide for all switchboard silver-plated copper bus bars of same capacity as main breaker, or as indicated on Drawings, between current transformer and main section and distribution sections; also, full height of breaker space in distribution portions. Copper bus shall have current density of 1000A per square inch of cross section. Bus structure shall be free-fitted, and shall have sufficient strength to withstand short-circuit as indicated on drawings. Connections shall be securely bolted together with corrosion-resistant plated carbon steel, minimum grade 5 machine screws secured with constant pressure-type locking devices. Bus bar bracing shall be designed to withstand maximum available short-circuit current. Connections for cables to all circuit breakers, switches and motor control devices shall be heavy-duty mechanical pressure type terminal lugs. Provide service cable lugs as

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required by utility company. Cables and internal wiring shall be supported with suitable cleats.

9. Switchboard distribution sections shall be furnished with full height bussing. Unused spaces shall be provided with blank covers. Switchboards, as complete units, shall be given single short-circuit current ratings by manufacturer. Such ratings shall be established by actual tests by manufacturer, in accordance with UL specifications, on equipment constructed similarly to the furnished switchboard.
10. Provide nameplates for components on switchboards. Plates shall be black and white plastic nameplate stock, with characters cut through black exposing white, and shall bear designation of service, or feeders controlled and fuse size. Provide similar nameplates for meter and transformer compartments. A large nameplate identifying switchboard, indicating service voltage, function and current rating shall be furnished with 3/16 inch engraved block letters.
11. Paint cabinets, framework and plates inside and out with one coat of rust-resistant metal primer and one coat of gray enamel, baked on, or lacquer sprayed on.
12. Manufacture boards according to reviewed Shop Drawings. Switchboard shall meet requirements of legally constituted authorities having jurisdiction, and respective serving utility.
13. Switchboards installed outdoors shall be weatherproof NEMA Type 3R enclosure. Enclosure construction shall be formed of code gage galvanized steel with ANSI No. 61 gray enamel finish. Heavy-duty, 3-point latching, vault type door handles with padlocking provisions shall be furnished on doors. Padlocks shall be furnished keyed to Corbin No. 60 keys. Switchboards installed outdoors shall be specifically required to maintain service during extreme outdoor ambient temperatures of a minimum of 150 degrees Fahrenheit in NEMA Type 3R enclosures.
14. For grounded wye electrical service switchboards rated more than 150 volts, to ground and 1,000 amperes or more, provide ground fault protection for main protective device. Ground fault protection shall be UL listed, with ground sensor encircling all phase conductors and neutral conductors integral with the main protective device. Provide testing of ground fault protection system by an independent recognized testing laboratory. Testing lab shall provide necessary testing equipment at the Project site and perform a certified test on ground protection system in presence of the Engineer. The ground fault setting shall be selected to coordinate with downstream circuit protective devices. Verify that the system neutral is grounded at the service entrance switchboard only, except neutrals of step down distribution transformers. For branch circuit protective devices, rated 800 amps or more, provide ground fault protection where shown on the drawings, or as described above, for main protective device. Coordinate settings with main protective device ground fault protection.

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15. In main and distribution switchboards provide a multifunctional digital meter with true RMS measured Amperes (each phase and neutral) Volts (line-to-line and line-to-neutral), Power Factor, Frequency, VA, VAR, Watts, KWH, KVARH, KVAH, voltage/current unbalance, and demand metering: W, VAR, Amperes, VA. Meter to have a front mounted RS232 port to allow programming and meter values via laptop computer and supplied software. The meter shall be equal to GE Multilin PQM II.
16. Connections to any bussing shall be securely bolted together with corrosion-resistant plated carbon steel, minimum grade 5 machine screws secured with constant pressure-type locking devices.

### PART 3 - EXECUTION

#### 3.01 INSTALLATION

- A. Switchboards shall be located so that they are readily accessible and not exposed to physical damage.
- B. Switchboard locations shall provide sufficient working space around the switchboard to comply with the California Electrical Code.
- C. Switchboards shall be securely fastened to the mounting surface.
- D. Switchboard cabinets shall be grounded as specified in Article 250 of the California Electrical Code.
- E. Conduits shall be installed so as to prevent moisture or water from entering and accumulating within the enclosure.
- F. Lugs shall be suitable and as required for installation with the conductor being connected.
- G. Conductor lengths shall be maintained to a minimum within the wiring gutter space. Conductors shall be long enough to reach the terminal location in a manner that avoids strain on the connecting lugs.
- H. Maintain the required bending radius of conductors inside the cabinet.
- I. Distribute and arrange conductors neatly in the wiring gutters.
- J. Tightening the wire lugs or any conductor connections shall be performed in the presence of the Engineer. Torque values shall be those recommended by manufacturer.
- K. Remove shipping blocks from component devices.
- L. Manually exercise circuit breakers to verify they operate freely.
- M. Remove debris from switchboard interior.

SWITCHBOARDS  
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- N. Follow manufacturer's instructions for installation.
- O. Furnish one spare fuse for each fusible switch installed. Spare fuses shall be of the same type and rated as those installed.
- P. Do not install in highly corrosive environments such as pool equipment, boiler, chemical and corrosive materials storage rooms, and similar areas. When equipment is installed in such areas, it shall be labeled and listed for the application.

### 3.02 PADS AND ANCHORING

- A. Where free-standing equipment is installed at exterior locations or in locations below grade, concrete pads shall be provided as specified in Section 03300: Cast-In-Place Concrete.
- B. Where a utility meter is installed in a switchboard, concrete pad shall extend 3 feet from face of switchboard door or board, whichever is greater. Concrete pad installation shall comply with electric utility company requirements.

Anchor bolts for freestanding equipment shall meet California seismic zone 4 requirements, and manufacturer's installation recommendations. The more stringent requirements will be enforced.

### 3.03 PROJECT RECORD DRAWINGS

- A. Provide project record drawings of switchboards as installed, indicating main and branch circuit ratings, circuit numbers and part numbers.
- B. For all adjustable protection devices (Circuit Breaker: relays, trip settings, analog type or digital type, etc.) and sensors, the following information shall be provided:
  - 1. Certified Calibration and Onsite Acceptance Test Data Sheets, per NETA – ATS 1995 Specifications. Tests to be performed by certified third party testing company.
  - 2. Installation Instructions.
  - 3. Operating Instructions.
  - 4. Maintenance Instructions.
  - 5. Replacement Parts List.
  - 6. Final Test Report.
- F. Test information shall be submitted to the Architect. Nameplates may be fabricated of engraved laminated plastic or etched metal and shall be permanently attached with escutcheon pins or screws.

### 3.04 PROTECTION

- A. Protect the Work of this section until Substantial Completion.

3.05

CLEANUP

- A. Remove rubbish, debris, and waste materials and legally dispose of off Project site.

END OF SECTION

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**5D: SECTION 03300 – CAST-IN-PLACE CONCRETE**

**SECTION 03300  
CAST-IN-PLACE CONCRETE**

**PART 1 - GENERAL**

**1.01 GENERAL:**

- A. Codes and Standards: ACI 301, "Specifications for Structural Concrete Buildings", ACI 318, "Building Code Requirements for Reinforced Concrete", comply with applicable provisions except as otherwise indicated.
- B. Concrete Testing Service: Employ acceptable testing laboratory to perform materials evaluation, testing, and design of concrete mixes.
- C. Quality Control:

The County's testing laboratory will perform sampling and testing during concrete placement, which may include the following, as directed by Engineer. This testing does not relieve Contractor of responsibility of providing concrete in compliance with specifications. Contractor may perform additional testing as necessary to ensure quality of concrete.

- 1. Sampling: ASTM C 172.
  - 2. Slump: ASTM C 143, one of test for each load at point of discharge.
  - 3. Air Content: ASTM C 173, one for each set of compressive strength specimens.
  - 4. Compressive Strength: ASTM C 39, one set for each 50 cu. yds. Or fraction thereof of each class of concrete; one specimen tested at 28 days, and one retained for later testing if required.
- D. Test results will be reported in writing to Engineer, Contractor, and concrete producer within 24 hours after test are made. Costs of testing for concrete which fails to meet required performance shall be the responsibility of the Contractor.
- E. Submittals:  
  
Submit the following:
  - 1. Manufacturer's data with installation instructions for the proprietary materials including reinforcement and forming accessories, admixtures, joint materials, hardeners, curing materials, and others as requested by Engineer.
  - 2. Laboratory test or evaluation reports for concrete materials and mix designs.
- F. Mix Proportions and Design:

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Proportion mixes complying with mix design procedures specified in ACI 301. Provide concrete with 28 day compressive strength per ASTM C 94 as follows:

1. Foundations and Footings: 2500 psi.
2. Slabs on grade: 2500 psi.
3. Exterior site concrete and pads exposed to weather: 2500 psi.
4. Submit written report to Engineer for each proposed concrete mix at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed and are acceptable to Engineer.
5. Mix designs may be adjusted when material characteristics, job conditions, weather, test results, or other circumstances warrant. Do not use revised concrete mixes until submitted to and accepted by the Engineer.
6. Use air-entering admixture in all concrete, providing not less than 4 percent nor more than 6 percent entrained air for concrete exposed to freezing and thawing, and from 2 percent to 4 percent for other concrete.

## 1.02 PRODUCTS

### A. Concrete Materials:

1. Portland Cement: ASTM C 150, type as required (Unless Type V is required due to soils conditions).
2. Aggregates: ASTM C 33, except local aggregates of proven durability may be used when acceptable to Engineer.
3. Water: Drinkable.
4. Air-Entraining Admixture: ASTM C 260.
5. Water-Reducing Admixture: ASTM C 494; type as required to suit project conditions. Use only admixtures that have been tested and accepted in mix designs.

### B. Related Materials:

1. Moisture Barrier: Clear 8-mils-thick polyethylene; polyethylene-coated barrier paper, 1/8" thick asphalt core membrane sheet.
2. Membrane-Forming Curing Compound: ASTM C 309, Type I.
3. Asphalt impregnated fiberboard expansion joint material, 1/2" thick.
4. Siloxane penetrating sealer: Master Seal 340, or equal.

### C. Form Materials:

1. Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection.
2. Exposed Concrete surfaces: Suitable material to suit project conditions.

D. Reinforcing Materials:

1. Deformed Reinforcing Bars: ASTM A 615, Grade 60, unless otherwise indicated.
2. Welded Wire Fabric: ASTM A 185.

1.03 EXECUTION:

A. Forming and Placing Concrete:

1. Ready-Mix Concrete: ASTM C 94.
2. Formwork: Construct so that concrete members and structures are of correct size, shape, alignment, elevation, and position.
  - a) Provide openings in formwork to accommodate work of other trades. Accurately place and securely support items built into forms.
  - b) Clean and adjust forms prior to concrete placement. Apply form-release agents or wet forms, as required. Retighten forms during concrete placement if required to eliminate mortar leaks.
3. Reinforcement: Position, support, and secure reinforcement against displacement. Locate and support with metal chairs, runners, bolsters, spacers, and hangers, as required. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.
  - a) Install welded wire fabric in as long lengths as practicable, lapping at least one mesh.
  - b) Horizontal and vertical bars shall be separated a minimum of 1". All laps of bars shall be separated a minimum of 1".
4. Joints: Provide construction, isolation, and control joints as indicated or required. Located construction joints so as not to impair strength and appearance of structure. Place isolation and control joints in slabs-on-ground to stabilize differential settlement and random cracking.
5. Installation of Embedded Items: Set and build into work anchorage devices and other embedded items required for other work that is attached to or supported by cast-in-place concrete. Use setting diagrams, templates, and instructions provided by others for locating and setting.
6. Concrete Placement: Comply with ACI, placing concrete in a continuous operation within planned joints or sections. Do not begin placement until work of other trades affecting concrete is completed.
  - a) Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping, so that concrete is worked around reinforcement and other embedded items and into forms.

B. Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placing, and curing.

1. In cold weather, comply with ACI 306.

2. In hot weather, comply with ACI 305.

C. Concrete Finishes:

1. Exposed-to-View Surfaces: Provide a smooth finish for exposed concrete surfaces and surfaces to be covered with a coating or covering material applied directly to concrete. Remove fins and projections, patch defective areas with cement grout, and rub smooth.
2. Slab Trowel Finish: Apply trowel finish to monolithic slab surfaces that are exposed to view or are to be covered with resilient flooring, paint, or other thin film coating. Consolidate concrete surfaces by finish troweling, free of trowel marks, uniform in texture and appearance.
3. Curing: Begin initial curing as soon as free water has disappeared from exposed surfaces. Where possible, keep continuously moist for not less than 72 hours. Continue during by use of moisture-retaining cover or membrane-forming curing compound. Cure formed surfaces by moist curing until forms are removed. Provide protections as required to prevent damage to exposed concrete surfaces.

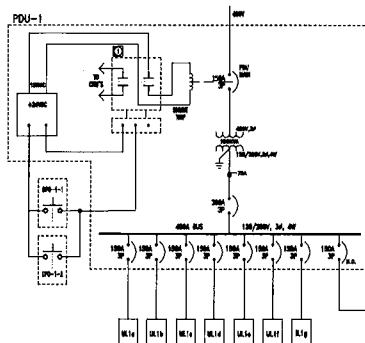
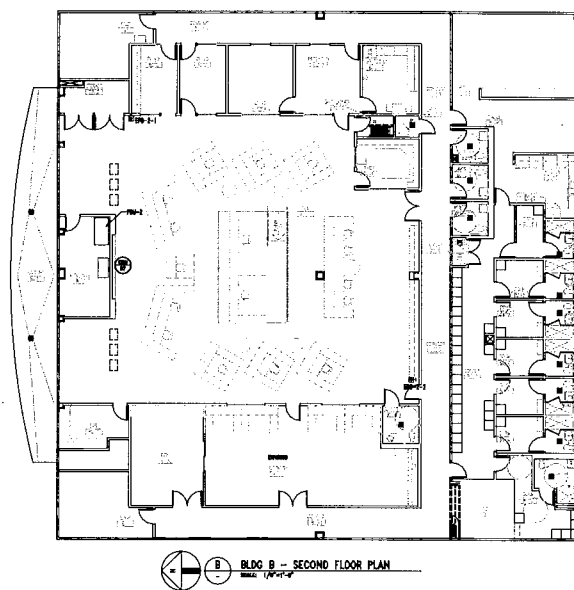
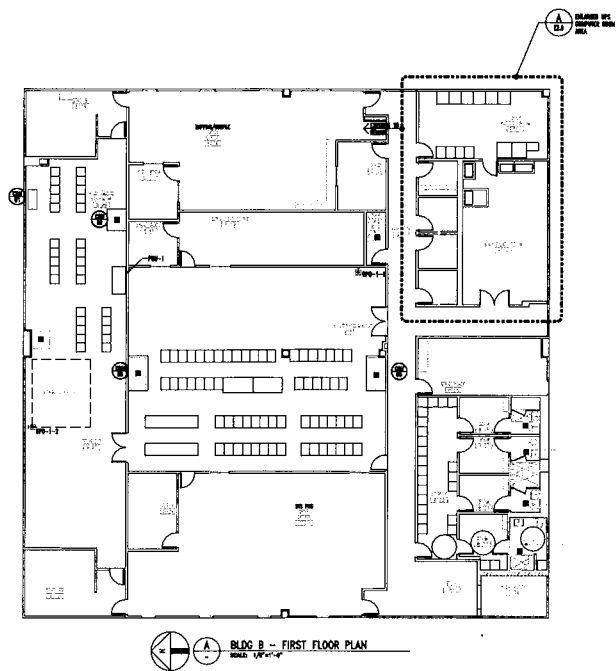
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CAST-IN PLACE CONCRETE  
03300 - 4

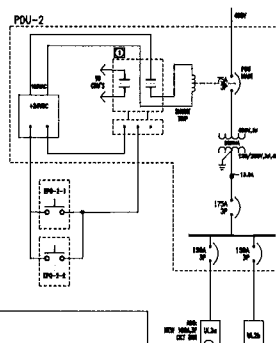
**5E: PROJECT DRAWINGS – MULLEN & ASSOCIATES**

[illegible]

STA. TELEPHONE, SET & KEY PLAN, SYMBOLS & NOTES Project: ROTC Data Center UPS Date: 10/26/2001 Drawn: C.D. Check: J.M. Date: 10/26/2001		ROTC Data Center UPS for Regional Fire Operations and Training Center OC Fire Authority 1 Fire Authority Road Irvine, California 92602 Phone: 714-573-6475		LEA MILLER & ASSOCIATES INCORPORATED 202.001 	
Revisions		By	Date	Scale	Sheet
					E0.1



1 PDU-1, EPO CONTROL/1 LINE (EXISTING SHOWN FOR REF)  
IN SCHEDULE



2 PDU-2, EPO CONTROL/1 LINE (EXISTING SHOWN FOR REF)  
IN SCHEDULE

**J.A. MILLER & ASSOCIATES, INC.**  
208 L.O.O.I.

Date: \_\_\_\_\_  
 By: \_\_\_\_\_

**ROTIC Data Center UPS**  
for Regional Fire Operations and Training Center  
OC Fire Authority 1 Fire Authority Road  
Irvine, California 92618

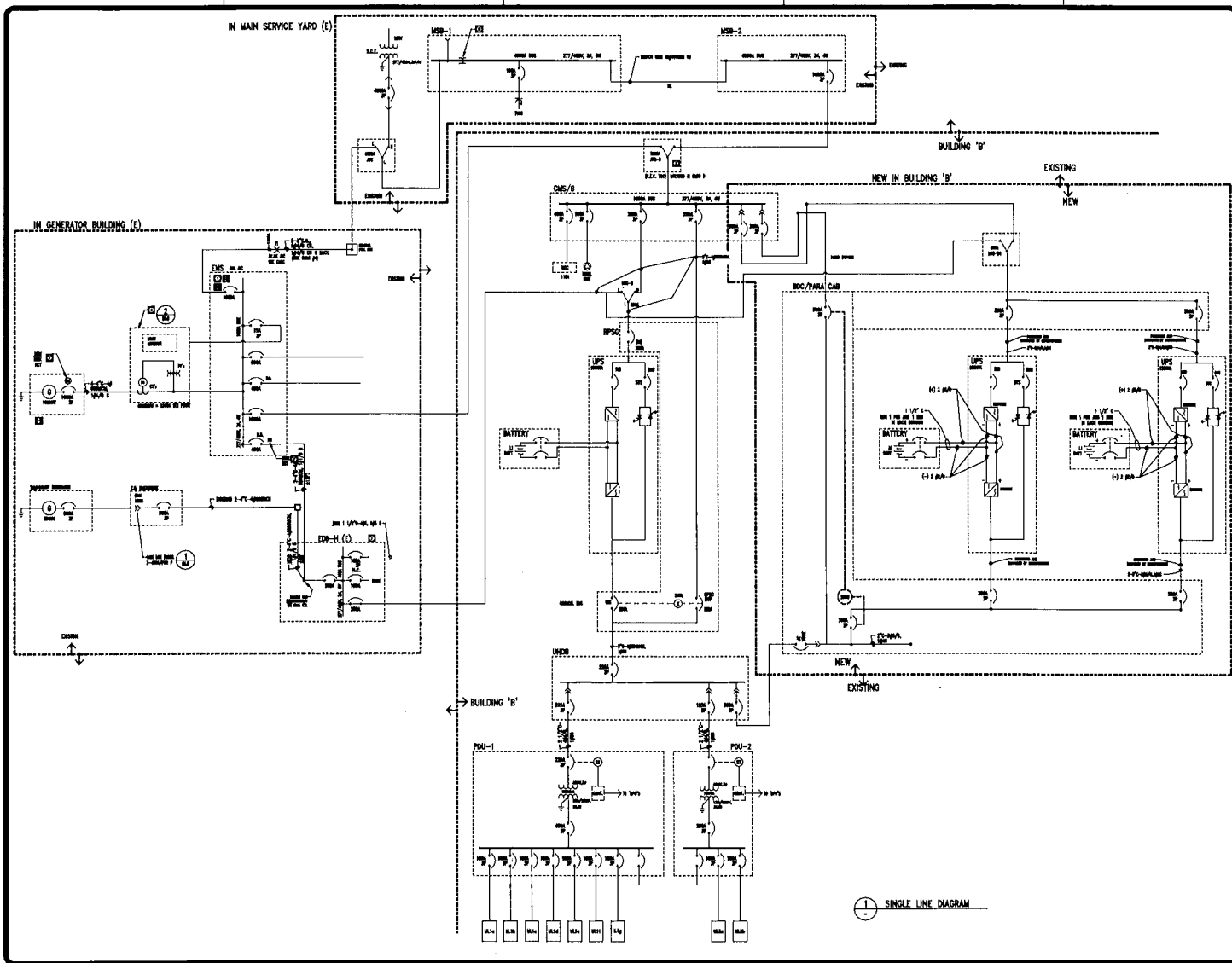
Project: ROTIC Data Center UPS  
 RFP Number: A01000  
 1 The Authority Road  
 Irvine, California 92618

Sheet  
**E1.0**

Date: 02/24/2011

of 5





<b>ROTC Data Center UPS</b> for Regional Fire Operations and Training Center OC Fire Authority 1 The Authority Road Irvine, California 92612	
Project: ROTC Data Center UPS RFP Number: A-01189 1 The Authority Road Irvine, California 92612	Date: 03/10 Drawn: LDM Title: ROTC Data Center Sheet: E3.0

ACORD™

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/31/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Conner Strong & Buckelew 32 Old Slip, Suite 32B New York, NY 10005	CONTACT NAME: Gianna Costello	
	PHONE (A/C, No, Ext): 646-891-4983	FAX (A/C, No): 646-862-8242
	E-MAIL ADDRESS: gcostello@connerstrong.com	
INSURED Ferreira Construction Co. Inc. dba Ferreira Coastal Construction Co. 10370 Commerce Center Drive, Suite B-200 Rancho Cucamonga, CA 91730	INSURER(S) AFFORDING COVERAGE	
	INSURER A : Zurich American Insurance Company	NAIC # 16535
	INSURER B : Endurance American Specialty Ins. Co.	41718
	INSURER C : GuideOne National Insurance Company	14334
	INSURER D : Colony Insurance Company	39993
	INSURER E : Navigators Insurance Company	42307
	INSURER F :	

## COVERAGES

## CERTIFICATE NUMBER:

## REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:		GLO019785405	07/01/2021	07/01/2022	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMP/OP AGG \$4,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY		BAP019787306	07/01/2021	07/01/2022	COMBINED SINGLE LIMIT (Ea accident) \$2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		EXC30000705503	07/01/2021	07/01/2022	EACH OCCURRENCE \$3,000,000 AGGREGATE \$3,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	WC019787405	07/01/2021	07/01/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
C	Excess Liability		099002088	07/01/2021	07/01/2022	\$5M Occ. / \$5M Agg
D	Excess Liability		AR6461134	07/01/2021	07/01/2022	\$5M Occ. / \$5M Agg
E	Excess Liability		NY21EXCZ02BJWIV	07/01/2021	07/01/2022	\$12M Occ. / \$12M Agg

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Coverage: Commercial Property & Inland Marine Policy

Carrier: Aspen American Insurance Company (NAIC: 43460)

Effective: 07/01/2021 - 07/01/2022

Policy #: IMACUQM21

Limits Installation Floater: \$3,000,000 Jobsite Limit; \$5,000,000 Catastrophe Limit

(See Attached Descriptions)

## CERTIFICATE HOLDER

## CANCELLATION

Orange County Fire Authority 1 Fire Authority Road Irvine, CA. 92620	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE <i>W. Michael Tagman</i>

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## DESCRIPTIONS (Continued from Page 1)

FCC-5455 - Interruptible Power Supply (UPS)

OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers are Additional Insured on a primary and non-contributory basis on the above referenced Commercial General Liability and Automobile Liability Policies if required by written contract. Excess Liability Policy follows form. A waiver of subrogation applies as required by written contract and permitted by law.



## Additional Insured – Owners, Lessees Or Contractors –

**ZURICH®**

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
GLO 0197854-05	07/01/2021	07/01/2022		11498000	INCL	

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**Named Insured:** FERREIRA CONSTRUCTION CO., INC.

**Address (including ZIP Code):**

This endorsement modifies insurance provided under the:

### **Commercial General Liability Coverage Part**

**A. Section II – Who Is An Insured** is amended to include as an additional insured the person or organization whom you are required to add as an additional insured on this policy under a written contract or written agreement. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf,

in the performance of your ongoing operations or "your work" as included in the "products-completed operations hazard", which is the subject of the written contract or written agreement at the Location designated and described in the Schedule above.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and
2. Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured.

**B. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:**

This insurance does not apply to:

"Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering or failure to render any professional architectural, engineering or surveying services including:

- a. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved, the rendering of or the failure to render any professional architectural, engineering or surveying services.

- C. The following is added to Paragraph 2. Duties In The Event Of Occurrence, Offense, Claim Or Suit of Section IV – **Commercial General Liability Conditions**:

The additional insured must see to it that:

1. We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;
2. We receive written notice of a claim or "suit" as soon as practicable; and
3. A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured, if the written contract or written agreement requires that this coverage be primary and non-contributory.

- D. For the purpose of the coverage provided by this endorsement:

1. The following is added to the Other Insurance Condition of Section IV – **Commercial General Liability Conditions**:

**Primary and Noncontributory insurance**

This Insurance is primary to and will not seek contribution from any other insurance available to an additional insured provided that:

- a. The additional insured is a Named Insured under such other insurance; and
  - b. You are required by written contract or written agreement that this insurance be primary and not seek contribution from any other insurance available to the additional insured.
2. The following paragraph is added to Paragraph 4.b. of the Other Insurance Condition of Section IV – **Commercial General Liability Conditions**:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

- E. With respect to the insurance afforded to the additional insureds under this endorsement, the following is added to Section III – **Limits Of Insurance**:

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement referenced in Paragraph A. of this endorsement; or
  2. Available under the applicable Limits of Insurance shown in the Declarations,
- whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

All other terms and conditions of this policy remain unchanged.

**ZURICH**

## Waiver Of Subrogation (Blanket) Endorsement

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l. Prem	Return Prem.
GLO 0197854-05	07/01/2021	07/01/2022		11498000	\$ INCL	\$

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

This endorsement modifies insurance provided under the:

**Commercial General Liability Coverage Part**

The following is added to the **Transfer Of Rights Of Recovery Against Others To Us Condition**:

If you are required by a written contract or agreement, which is executed before a loss, to waive your rights of recovery from others, we agree to waive our rights of recovery. This waiver of rights shall not be construed to be a waiver with respect to any other operations in which the insured has no contractual interest.

# Coverage Extension Endorsement



Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
BAP 0197873-06	07/01/2021	07/01/2022		11498000	INCL	

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

This endorsement modifies insurance provided under the:

**Business Auto Coverage Form**  
**Motor Carrier Coverage Form**

## A. Amended Who Is An Insured

1. The following is added to the **Who Is An Insured** Provision in **Section II – Covered Autos Liability Coverage**:

The following are also "insureds":

- a. Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow for acts performed within the scope of employment by you. Any "employee" of yours is also an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.
- b. Anyone volunteering services to you is an "insured" while using a covered "auto" you don't own, hire or borrow to transport your clients or other persons in activities necessary to your business.
- c. Anyone else who furnishes an "auto" referenced in Paragraphs **A.1.a.** and **A.1.b.** in this endorsement.
- d. Where and to the extent permitted by law, any person(s) or organization(s) where required by written contract or written agreement with you executed prior to any "accident", including those person(s) or organization(s) directing your work pursuant to such written contract or written agreement with you, provided the "accident" arises out of operations governed by such contract or agreement and only up to the limits required in the written contract or written agreement, or the Limits of Insurance shown in the Declarations, whichever is less.

2. The following is added to the **Other Insurance** Condition in the Business Auto Coverage Form and the **Other Insurance – Primary and Excess Insurance Provisions Condition** in the Motor Carrier Coverage Form:

Coverage for any person(s) or organization(s), where required by written contract or written agreement with you executed prior to any "accident", will apply on a primary and non-contributory basis and any insurance maintained by the additional "insured" will apply on an excess basis. However, in no event will this coverage extend beyond the terms and conditions of the Coverage Form.

## B. Amendment – Supplementary Payments

Paragraphs **a.(2)** and **a.(4)** of the **Coverage Extensions** Provision in **Section II – Covered Autos Liability Coverage** are replaced by the following:

- (2) Up to \$5,000 for the cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.
- (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

### C. Fellow Employee Coverage

The **Fellow Employee** Exclusion contained in **Section II – Covered Autos Liability Coverage** does not apply.

### D. Driver Safety Program Liability and Physical Damage Coverage

1. The following is added to the **Racing** Exclusion in **Section II – Covered Autos Liability Coverage**:

This exclusion does not apply to covered "autos" participating in a driver safety program event, such as, but not limited to, auto or truck rodeos and other auto or truck agility demonstrations.

2. The following is added to Paragraph 2. in the **Exclusions** of **Section III – Physical Damage Coverage** of the Business Auto Coverage Form and Paragraph 2.b. in the **Exclusions** of **Section IV – Physical Damage Coverage** of the Motor Carrier Coverage Form:

This exclusion does not apply to covered "autos" participating in a driver safety program event, such as, but not limited to, auto or truck rodeos and other auto or truck agility demonstrations.

### E. Lease or Loan Gap Coverage

The following is added to the **Coverage** Provision of the **Physical Damage Coverage** Section:

#### **Lease Or Loan Gap Coverage**

In the event of a total "loss" to a covered "auto", we will pay any unpaid amount due on the lease or loan for a covered "auto", less:

- a. Any amount paid under the **Physical Damage Coverage** Section of the Coverage Form; and
- b. Any:
  - (1) Overdue lease or loan payments at the time of the "loss";
  - (2) Financial penalties imposed under a lease for excessive use, abnormal wear and tear or high mileage;
  - (3) Security deposits not returned by the lessor;
  - (4) Costs for extended warranties, credit life insurance, health, accident or disability insurance purchased with the loan or lease; and
  - (5) Carry-over balances from previous leases or loans.

### F. Towing and Labor

Paragraph **A.2.** of the **Physical Damage Coverage** Section is replaced by the following:

We will pay up to \$75 for towing and labor costs incurred each time a covered "auto" of the private passenger type is disabled. However, the labor must be performed at the place of disablement.

### G. Extended Glass Coverage

The following is added to Paragraph **A.3.a.** of the **Physical Damage Coverage** Section:

If glass must be replaced, the deductible shown in the Declarations will apply. However, if glass can be repaired and is actually repaired rather than replaced, the deductible will be waived. You have the option of having the glass repaired rather than replaced.

### H. Hired Auto Physical Damage – Increased Loss of Use Expenses

The **Coverage Extension** for **Loss Of Use Expenses** in the **Physical Damage Coverage** Section is replaced by the following:

#### **Loss Of Use Expenses**

For Hired Auto Physical Damage, we will pay expenses for which an "insured" becomes legally responsible to pay for loss of use of a vehicle rented or hired without a driver under a written rental contract or written rental agreement. We will pay for loss of use expenses if caused by:

- (1) Other than collision only if the Declarations indicate that Comprehensive Coverage is provided for any covered "auto";
- (2) Specified Causes Of Loss only if the Declarations indicate that Specified Causes Of Loss Coverage is provided for any covered "auto"; or
- (3) Collision only if the Declarations indicate that Collision Coverage is provided for any covered "auto".

However, the most we will pay for any expenses for loss of use is \$100 per day, to a maximum of \$3000.

#### **I. Personal Effects Coverage**

The following is added to the **Coverage** Provision of the **Physical Damage Coverage** Section:

##### **Personal Effects Coverage**

- a. We will pay up to \$750 for "loss" to personal effects which are:
  - (1) Personal property owned by an "insured"; and
  - (2) In or on a covered "auto".
- b. Subject to Paragraph a. above, the amount to be paid for "loss" to personal effects will be based on the lesser of:
  - (1) The reasonable cost to replace; or
  - (2) The actual cash value.
- c. The coverage provided in Paragraphs a. and b. above, only applies in the event of a total theft of a covered "auto". No deductible applies to this coverage. However, we will not pay for "loss" to personal effects of any of the following:
  - (1) Accounts, bills, currency, deeds, evidence of debt, money, notes, securities, or commercial paper or other documents of value.
  - (2) Bullion, gold, silver, platinum, or other precious alloys or metals; furs or fur garments; jewelry, watches, precious or semi-precious stones.
  - (3) Paintings, statuary and other works of art.
  - (4) Contraband or property in the course of illegal transportation or trade.
  - (5) Tapes, records, discs or other similar devices used with audio, visual or data electronic equipment.

Any coverage provided by this Provision is excess over any other insurance coverage available for the same "loss".

#### **J. Tapes, Records and Discs Coverage**

1. The Exclusion in Paragraph B.4.a. of **Section III – Physical Damage Coverage** in the Business Auto Coverage Form and the Exclusion in Paragraph B.2.c. of **Section IV – Physical Damage Coverage** in the Motor Carrier Coverage Form does not apply.
2. The following is added to Paragraph 1.a. **Comprehensive Coverage** under the **Coverage** Provision of the **Physical Damage Coverage** Section:

We will pay for "loss" to tapes, records, discs or other similar devices used with audio, visual or data electronic equipment. We will pay only if the tapes, records, discs or other similar audio, visual or data electronic devices:

- (a) Are the property of an "insured"; and
- (b) Are in a covered "auto" at the time of "loss".

The most we will pay for such "loss" to tapes, records, discs or other similar devices is \$500. The **Physical Damage Coverage Deductible** Provision does not apply to such "loss".

#### **K. Airbag Coverage**

The Exclusion in Paragraph **B.3.a.** of **Section III – Physical Damage Coverage** in the Business Auto Coverage Form and the Exclusion in Paragraph **B.4.a.** of **Section IV – Physical Damage Coverage** in the Motor Carrier Coverage Form does not apply to the accidental discharge of an airbag.

#### **L. Two or More Deductibles**

The following is added to the **Deductible** Provision of the **Physical Damage Coverage** Section:

If an accident is covered both by this policy or Coverage Form and by another policy or Coverage Form issued to you by us, the following applies for each covered "auto" on a per vehicle basis:

1. If the deductible on this policy or Coverage Form is the smaller (or smallest) deductible, it will be waived; or
2. If the deductible on this policy or Coverage Form is not the smaller (or smallest) deductible, it will be reduced by the amount of the smaller (or smallest) deductible.

#### **M. Physical Damage – Comprehensive Coverage – Deductible**

The following is added to the **Deductible** Provision of the **Physical Damage Coverage** Section:

Regardless of the number of covered "autos" damaged or stolen, the maximum deductible that will be applied to Comprehensive Coverage for all "loss" from any one cause is \$5,000 or the deductible shown in the Declarations, whichever is greater.

#### **N. Temporary Substitute Autos – Physical Damage**

1. The following is added to **Section I – Covered Autos**:

##### **Temporary Substitute Autos – Physical Damage**

If Physical Damage Coverage is provided by this Coverage Form on your owned covered "autos", the following types of vehicles are also covered "autos" for Physical Damage Coverage:

Any "auto" you do not own when used with the permission of its owner as a temporary substitute for a covered "auto" you do own but is out of service because of its:

1. Breakdown;
  2. Repair;
  3. Servicing;
  4. "Loss"; or
  5. Destruction.
2. The following is added to the Paragraph **A. Coverage** Provision of the **Physical Damage Coverage** Section:

##### **Temporary Substitute Autos – Physical Damage**

We will pay the owner for "loss" to the temporary substitute "auto" unless the "loss" results from fraudulent acts or omissions on your part. If we make any payment to the owner, we will obtain the owner's rights against any other party.

The deductible for the temporary substitute "auto" will be the same as the deductible for the covered "auto" it replaces.

#### **O. Amended Duties In The Event Of Accident, Claim, Suit Or Loss**

Paragraph **a.** of the **Duties In The Event Of Accident, Claim, Suit Or Loss** Condition is replaced by the following:

- a. In the event of "accident", claim, "suit" or "loss", you must give us or our authorized representative prompt notice of the "accident", claim, "suit" or "loss". However, these duties only apply when the "accident", claim, "suit" or "loss" is known to you (if you are an individual), a partner (if you are a partnership), a member (if you are a limited liability company) or an executive officer or insurance manager (if you are a corporation). The failure of any

agent, servant or employee of the "insured" to notify us of any "accident", claim, "suit" or "loss" shall not invalidate the insurance afforded by this policy.

Include, as soon as practicable:

- (1) How, when and where the "accident" or "loss" occurred and if a claim is made or "suit" is brought, written notice of the claim or "suit" including, but not limited to, the date and details of such claim or "suit";
- (2) The "insured's" name and address; and
- (3) To the extent possible, the names and addresses of any injured persons and witnesses.

If you report an "accident", claim, "suit" or "loss" to another insurer when you should have reported to us, your failure to report to us will not be seen as a violation of these amended duties provided you give us notice as soon as practicable after the fact of the delay becomes known to you.

**P. Waiver of Transfer Of Rights Of Recovery Against Others To Us**

The following is added to the **Transfer Of Rights Of Recovery Against Others To Us** Condition:

This Condition does not apply to the extent required of you by a written contract, executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. This waiver only applies to the person or organization designated in the contract.

**Q. Employee Hired Autos – Physical Damage**

Paragraph **b.** of the **Other Insurance** Condition in the Business Auto Coverage Form and Paragraph **f.** of the **Other Insurance – Primary and Excess Insurance Provisions** Condition in the Motor Carrier Coverage Form are replaced by the following:

For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented under a written contract or written agreement entered into by an "employee" or elected or appointed official with your permission while being operated within the course and scope of that "employee's" employment by you or that elected or appointed official's duties as respect their obligations to you.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

**R. Unintentional Failure to Disclose Hazards**

The following is added to the **Concealment, Misrepresentation Or Fraud** Condition:

However, we will not deny coverage under this Coverage Form if you unintentionally:

- (1) Fail to disclose any hazards existing at the inception date of this Coverage Form; or
- (2) Make an error, omission, improper description of "autos" or other misstatement of information.

You must notify us as soon as possible after the discovery of any hazards or any other information that was not provided to us prior to the acceptance of this policy.

**S. Hired Auto – World Wide Coverage**

Paragraph **7a.(5)** of the **Policy Period, Coverage Territory** Condition is replaced by the following:

- (5) Anywhere in the world if a covered "auto" is leased, hired, rented or borrowed for a period of 60 days or less,

**T. Bodily Injury Redefined**

The definition of "bodily injury" in the **Definitions** Section is replaced by the following:

"Bodily injury" means bodily injury, sickness or disease, sustained by a person including death or mental anguish, resulting from any of these at any time. Mental anguish means any type of mental or emotional illness or disease.

#### **U. Expected Or Intended Injury**

The **Expected Or Intended Injury** Exclusion in Paragraph **B. Exclusions** under **Section II – Covered Auto Liability Coverage** is replaced by the following:

##### **Expected Or Intended Injury**

"Bodily injury" or "property damage" expected or intended from the standpoint of the "insured". This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

#### **V. Physical Damage – Additional Temporary Transportation Expense Coverage**

Paragraph **A.4.a.** of **Section III – Physical Damage Coverage** is replaced by the following:

##### **4. Coverage Extensions**

###### **a. Transportation Expenses**

We will pay up to \$50 per day to a maximum of \$1,000 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type. We will pay only for those covered "autos" for which you carry either Comprehensive or Specified Causes of Loss Coverage. We will pay for temporary transportation expenses incurred during the period beginning 48 hours after the theft and ending, regardless of the policy's expiration, when the covered "auto" is returned to use or we pay for its "loss".

#### **W. Replacement of a Private Passenger Auto with a Hybrid or Alternative Fuel Source Auto**

The following is added to Paragraph **A. Coverage** of the **Physical Damage Coverage** Section:

In the event of a total "loss" to a covered "auto" of the private passenger type that is replaced with a hybrid "auto" or "auto" powered by an alternative fuel source of the private passenger type, we will pay an additional 10% of the cost of the replacement "auto", excluding tax, title, license, other fees and any aftermarket vehicle upgrades, up to a maximum of \$2500. The covered "auto" must be replaced by a hybrid "auto" or an "auto" powered by an alternative fuel source within 60 calendar days of the payment of the "loss" and evidenced by a bill of sale or new vehicle lease agreement.

To qualify as a hybrid "auto", the "auto" must be powered by a conventional gasoline engine and another source of propulsion power. The other source of propulsion power must be electric, hydrogen, propane, solar or natural gas, either compressed or liquefied. To qualify as an "auto" powered by an alternative fuel source, the "auto" must be powered by a source of propulsion power other than a conventional gasoline engine. An "auto" solely propelled by biofuel, gasoline or diesel fuel or any blend thereof is not an "auto" powered by an alternative fuel source.

#### **X. Return of Stolen Automobile**

The following is added to the **Coverage Extension** Provision of the **Physical Damage Coverage** Section:

If a covered "auto" is stolen and recovered, we will pay the cost of transport to return the "auto" to you. We will pay only for those covered "autos" for which you carry either Comprehensive or Specified Causes of Loss Coverage.

All other terms, conditions, provisions and exclusions of this policy remain the same.

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**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

**ALL PERSONS AND/OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND/OR ORGANIZATION**

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective

Policy No. **WC0197874-05**

Endorsement No.

Insured : **Ferreira Construction Co., Inc.**

Premium \$

Insurance Company

Countersigned by \_\_\_\_\_



**Orange County Fire Authority**  
**AGENDA STAFF REPORT**

**Board of Directors Meeting**  
**June 23, 2022**

**Agenda Item No. 2G**  
**Consent Calendar**

**Award of Public Works Contract for**  
**Installation of Clean Agent Fire Suppression System - RFOTC**

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**Contact(s) for Further Information**

Jim Ruane, Assistant Chief  
Logistics Department

[jimruane@ocfa.org](mailto:jimruane@ocfa.org)

714.573.6028

Joel Brodowski, Information Technology  
Division Manager/Logistics Department

[joelbrodowski@ocfa.org](mailto:joelbrodowski@ocfa.org)

714.573.6421

**Summary**

This agenda item seeks approval of the plans and specifications for the installation of a Clean Agent Fire Suppression System at the RFOTC and award of a public works contract to Facilities Protection Systems, the lowest responsive and responsible bidder, responding to bid RO2537A.

**Prior Board/Committee Action**

None.

**RECOMMENDED ACTION(S)**

1. Approve the plans and specifications for the installation of a Clean Agent Fire Suppression System at the RFOTC.
2. Accept Facilities Protection Systems bid dated April 5, 2022.
3. Approve and award the public works contract to Facilities Protection Systems in the amount of \$319,992.

**Impact to Cities/County**

Not Applicable.

**Fiscal Impact**

Funding for this contract is available in the existing FY2021/22 Logistics Department Capital Improvement Program, Communications & Information Systems – Fund 124, Data Center Fire Suppression System Upgrade (P348).

Increased Cost Funded by Structural Fire Fund: \$0

Increased Cost Funded by Cash Contract Cities: \$0

**Background**

The current RFOTC Data Center fire suppression system uses a pre-action water sprinkler system. While this is the standard for structure protection, if there were a discharge of water into the Data Center, it could result in a catastrophic loss of computers and data, telephones, radio systems, and other key equipment.

This project is to modify the RFOTC Data Center fire suppression system by adding a Clean Agent suppressant capability that is non-destructive to the computer systems in the Data Center.

The proposed Clean Agent fire suppression system extinguishes fire primarily thru heat absorption and early detection. It is safe for humans, and leaves little residue if there is a suppressant discharge from the system. It is designed to discharge and extinguish the fire before it progresses to the point that the water sprinklers are activated. This will protect the contents of the Data Center from water damage and help with a rapid restoration of Data Center functions. With both Clean Agent and water sprinkler fire suppression systems in use, protection of the OCFA's critical computers and data, telephones, and radio systems is significantly enhanced.

#### ***Invitation for Bids (IFB) Process***

On March 3, 2022, staff issued IFB RO2537A to solicit competitive bids for the installation of a Clean Agent Fire Suppression System at the RFOTC Data Center. A mandatory job-walk was held on March 21, 2022, with bids due on April 6, 2022. Two construction bids were received and reviewed by staff for responsiveness, and then vetted for bidder qualifications. Both bidders were deemed responsive and qualified. See Attachment One for a detailed report of the responsive contractors' qualifications.

Bid totals for the submittals are shown below, resulting in Facilities Protection Systems as the low bidder.

<b>Bidder</b>	<b>Lump Sum Pricing</b>
Facilities Protection Systems	\$319,992
Intelligent Fire Solutions	\$420,000

Additionally, staff and the project engineer reviewed the pricing submitted and confirmed the reasonableness of the apparent lowest bidder's pricing based on the engineer's estimate, individual cost categories, and comparison to other bidders' pricing. See Attachment Two for the Bid Tabulation with cost category comparison.

Subsequent to this review, a discussion was conducted between Facilities Protection Systems and the OCFA project team to confirm specifications, scope of work, and the project construction as provided in the bid submittal. As a result of the pre-qualification process, price analysis, and well as confirmation of the specifications, scope of work, and schedule, Facilities Protection Systems is deemed the lowest responsive and responsible bidder.

#### ***Recommendation***

Based on the results of the above described bid review process, staff recommends contract award to Facilities Protection Systems as the lowest responsive responsible bidder with a base bid in the amount of \$319,992.

#### ***Attachment(s)***

1. Executive Summary
2. Bid Tabulation
3. Proposed Public Works Contract (*Contract posted online and hard copy available in the Clerk's Office upon request*)



## Executive Summary: Formal Public Works Bid

### Bid #RO2537A : Clean Agent Fire Suppression System - RFOTC

#### Section 1. Project Information

IFB Issue Date	3/3/2022	IFB Due Date	4/6/2022
Vendors Notified	724	Bids Received	2
Job Walk	3/21/2022	Job Walk Attendees	2
Addenda Issued	1	Engineer's Estimate	\$285,000
Project Description:	Clean Agent Fire Suppression System - RFOTC		
Solicitation Method:	Due to the public works nature of this project, the estimated value exceeding \$200,000, this project was solicited through the Formal Invitation for Public Works bid process utilizing the one-step pre-qualification process.		

#### Section 2. Pre-Qualification of Responsive Bidders

Contractor			Pre-Qualification Determination
Facilities Protection Systems			<input checked="" type="checkbox"/> <b>Qualified</b> <input type="checkbox"/> <b>Not Qualified</b>
<b>Contractor Reputation:</b> <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
<b>Notes:</b>	No findings		
<b>Contractor Capability to Perform Work:</b> <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
<b>Prior &amp; Current Contracts:</b>	<u>Prior:</u> Fire Suppression Systems Installations <ul style="list-style-type: none"><li>- LA County Sheriff's Department – Communication Center</li><li>- OC Sheriff's Department – OCSD Loma Ridge</li><li>- LA County Sheriff's Department – Monterey Park TI</li></ul> <u>Current:</u> <ul style="list-style-type: none"><li>- Spreadsheet Provided with numerous current projects.</li></ul>		
<b>Disposition of References:</b>			<input checked="" type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable
<b>References Provided:</b>	Los Angeles Sheriff's Department (two contacts) Dalke & Sons	<b>No. References that Responded</b>	2
<b>Notes:</b>	Per references contractor provided timely, complete work with ease of communication and recommendation for future project.		
Intelligent Fire Solutions			<input checked="" type="checkbox"/> <b>Qualified</b> <input type="checkbox"/> <b>Not Qualified</b>
<b>Contractor Reputation:</b> <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
<b>Notes:</b>	No findings.		
<b>Contractor Capability to Perform Work:</b> <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory

<b>Prior &amp; Current Contracts:</b>	<u>Prior:</u> <ul style="list-style-type: none"> <li>- LA County Sheriff's Department – Santa Clarita Station (Clean Agent)</li> <li>- East Valley Water District (Suppression System)</li> <li>- Metropolitan Water District (Fire Alarm Service)</li> </ul>								
	<u>Current:</u> <ul style="list-style-type: none"> <li>- Spreadsheet Provided with ten current projects.</li> </ul>								
<b>Disposition of References:</b>			<input type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable						
<b>References Provided:</b>	Icon-West East Valley Water District Metropolitan Water District	<b>No. References that Responded:</b>	0						
<b>Notes:</b>	No references responded to outreach attempts.								
<b>Section 3. Bid Pricing</b> <i>See attached Bid Tabulation for Detailed Cost Comparison</i>									
<b>Lowest Responsive, Responsible Bidder:</b>	Fire Protection Services								
<b>Comparison to Engineer's Estimate:</b>	\$34,992 additional								
<b>Pricing Determination:</b>	<input checked="" type="checkbox"/> Reasonable <input type="checkbox"/> Not Reasonable								
<b>Section 4. Recommendation for Award</b>									
<b>Award Documentation:</b>									
<b>Payment Bond:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Performance Bond:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
<b>Award Certifications:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Insurance Certificates:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
<b>Discussion:</b>									
<p>All bids were reviewed by the project engineer and additional research was completed by OCFA staff and to confirm responsiveness and responsibility of the bid and qualifications of the apparent low-bidder, Fire Protection Services. A discussion was conducted with the apparent low bidder, engineer, and OCFA staff for the project after bid opening to confirm specifications and the scope of work of the project as provided in the bid submittal.</p> <p>OCFA Staff also verified the current California State License Board (CSLB) license statuses and registration with the Department of Industrial Relations (DIR) for Fire Protection Services as follows:</p> <table border="1"> <thead> <tr> <th>Contractor</th> <th>CSLB License Number, Classification, and Expiration</th> <th>DIR Registration Number</th> </tr> </thead> <tbody> <tr> <td>Fire Protection Services</td> <td>592289, C10, C16, Exp: 4/30/2021</td> <td>1000005925</td> </tr> </tbody> </table> <p>As a result of the additional research, meeting, and verified qualifications of the apparent low bidder, its bid was accepted.</p>				Contractor	CSLB License Number, Classification, and Expiration	DIR Registration Number	Fire Protection Services	592289, C10, C16, Exp: 4/30/2021	1000005925
Contractor	CSLB License Number, Classification, and Expiration	DIR Registration Number							
Fire Protection Services	592289, C10, C16, Exp: 4/30/2021	1000005925							

RO2537 - Clean Agent Fire Suppression System - RFOTC	Facilities Protection Services			Intelligent Fire Solutions		
	Total Bid	Difference from Lowest Bid	Difference from Engineer's	Total Bid	Difference from Lowest Bid	Difference from Engineer's
	\$319,992.00	\$0.00	\$34,992.00	\$420,000.00	\$100,008.00	\$135,000.00
Line Item Subtotal	Line Item Subtotal			Line Item Subtotal	Difference from Lowest Bid	
Category I: Labor Classifications (Prevailing Wage)	\$52,919.00			\$111,750.00	-\$39,642.09	
Category II: Permanent & Non-Permanent Materials/Supplies	\$72,023.00			\$14,515.00	\$36,425.97	
Category III: Equipment	\$143,353.00			\$178,200.00	\$74,733.75	
Category IV: Overhead & Indirect Costs	\$8,220.00			\$18,615.00	-\$14,366.85	
Category V: Profit (% As written)	15.00%			30.00%	-7.18%	
Category VI: Permits/Fees	\$2,000.00			\$0.00	\$2,700.00	
Notes:	Price is 12.2% higher than engineer's estimate. Bid price deemed reasonable.			Price is 47.3% higher than engineer's estimate.		

**4F: CONTRACT AGREEMENT**

THIS CONTRACT AGREEMENT (hereinafter "Agreement" or "Contract" or "Contract Agreement") is made and entered into for the above identified Project this 17 day of MAY, 2022, BY AND BETWEEN THE **ORANGE COUNTY FIRE AUTHORITY** (hereinafter "OCFA"), and FACILITIES PROTECTION SYSTEMS, as CONTRACTOR.

WITNESSETH that OCFA and CONTRACTOR have mutually agreed as follows:

[SECTIONS 1 – 40 are set forth in the Solicitation Information and Instructions to Bidders above.]

**41 – PROJECT MANUAL**

This Contract consists of the Project Manual. The Project Manual includes the following component parts thereof, each of which is a part of this Contract:

- (1) RO2537A - Notice Inviting Bids
- (2) RO2537A - Instructions to Bidders
- (3) RO2537A - Bid Documents
- (4) RO2537A - Contract Documents
- (5) RO2537A - Technical Specifications
- (6) Any and all addenda and other supplemental notices and agreements issued by OCFA clarifying, amending, or extending the work contemplated as may be required to ensure its completion in an acceptable manner

All of the above component documents of the Project Manual are complementary and Work required by one of the above documents shall be done as if required by all. In the event of conflict among the component documents of the Project Manual, the conflict shall be resolved as set forth in Section 52 of the General Conditions.

**42 - CONTRACT PRICE**

OCFA shall pay to Contractor as full consideration for the faithful performance of the Contract, the sum of THREE HUNDRED NINETEEN THOUSAND, NINE HUNDRED, NINETY-TWO DOLLARS (\$319,992). This sum is the total amount stipulated in the Bid. Payment shall be made as set forth in the General Conditions.

**43 – CONTRACTOR'S COMMITMENT TO FURNISH MATERIALS AND WORK**

For and in consideration of the payments and agreements to be made and performed by OCFA, CONTRACTOR agrees to furnish all materials and perform all work required for the above identified Project, and to fulfill all other obligations as set forth in the aforesaid Contract Documents.

**44 – CONTRACTOR'S COMMITMENT TO PRICES**

CONTRACTOR agrees to receive and accept the prices set forth in the Proposal as full compensation for furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid Contract Documents; and also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work.

44.1 - NO INCREASE IN BID COST DUE TO SUBSTITUTION OF SUBCONTRACTOR. In the event that a subcontractor is substituted in any manner for any reason, any increased cost related to such substitution shall be the sole responsibility of the Contractor. Such substitution shall not cause or result, directly or indirectly, in any increase in the bid price. This subsection shall not be construed to be prior consent to substitution of subcontractors, nor to authorize any substitution that is prohibited by the Subletting and Subcontracting Fair Practices Act.

#### 45 – PAYMENT TO CONTRACTOR

OCFA hereby promises and agrees to employ, and does hereby employ, CONTRACTOR to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in the Contract Documents.

#### 46 - WORKER'S COMPENSATION

CONTRACTOR acknowledges the provisions of the Labor Code requiring every employer to be insured against liability for workers' compensation, or to undertake self-insurance in accordance with the provisions of that Code, and certifies compliance with such provisions.

#### 47 – PRINCIPAL INTERESTS

CONTRACTOR affirms that the signatures, titles, and seals set forth hereinafter in execution of this Agreement represent all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest herein.

#### 48 – COMPLIANCE WITH FEDERAL IMMIGRATION AND NATIONALITY ACT

CONTRACTOR hereby represents and warrants that it will comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C. Section 1101, *et seq.*, as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should CONTRACTOR so employ such unauthorized aliens for the performance of any work and/or services under this Agreement, and should any liability or sanctions be imposed against OCFA for such use of unauthorized aliens, CONTRACTOR hereby agrees to defend and indemnify OCFA against any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, or penalties which arise out of or are related to such employment, together with any and all costs, including attorneys' fees, incurred by OCFA.

#### 49 – CERTIFICATION RE DEBARMENT

CONTRACTOR confirms that neither CONTRACTOR nor its principals are suspended, debarred, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts from United States (U.S.) federal government procurement or nonprocurement programs, or are listed in the List of Parties Excluded from Federal Procurement or Nonprocurement Programs (<http://www.sam.gov/>) issued by the U.S. General Services Administration. "Principals" means officers, directors, owners, partners, and persons having primary management or supervisory responsibilities within a business entity (e.g. general manager, plant manager, head of a subsidiary, division or business segment, and similar positions). CONTRACTOR will provide immediate written notification to OCFA if, at any time prior to award, CONTRACTOR learns that this certification was erroneous when submitted or has become erroneous by reason of changed circumstances. This certification is a material representation of fact upon which reliance will be placed when OCFA executes this Agreement. If it is later determined that

CONTRACTOR knowingly rendered an erroneous certification, in addition to the other remedies available to OCFA, OCFA may terminate this Agreement for default by CONTRACTOR.

#### 50 - INDEMNIFICATION

To the fullest extent permitted by law, CONTRACTOR (at CONTRACTOR's sole cost and expense) shall defend (with legal counsel acceptable to OCFA in OCFA's sole discretion), indemnify, protect, and hold harmless the INDEMNIFIED PARTIES and each of them against all CLAIMS which arise out of, pertain to, or are related to CONTRACTOR's performance under, or failure to perform under, the Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit CONTRACTOR's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, indemnify, protect, and hold harmless the INDEMNIFIED PARTIES shall not apply to the extent such CLAIMS arise from the sole negligence or willful misconduct of the OCFA.

As used herein, "INDEMNIFIED PARTIES" refers to OCFA and its appointed officials, officers, employees, agents, representatives, attorneys and volunteers.

As used in this Section 50, "CLAIMS" refers to any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, penalties, and expenses including legal costs, expert fees and attorney fees, including but not limited to CLAIMS arising from injuries to or death of persons (CONTRACTOR's employees included), or for damage to property, including property owned by OCFA.

#### 51 – COMPLIANCE WITH WORK RULES

CONTRACTOR shall be familiar with, observe, and comply at all times during the term of this Agreement with any work rules for contractors as may be established and promulgated by the OCFA Fire Chief, which work rules shall be additional terms and conditions for providing the work and services to the OCFA pursuant to this Agreement, as may be updated and/or amended from time to time at the sole discretion of the Fire Chief.

**[SIGNATURE PAGE FOLLOWS]**

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed the day and year first written.

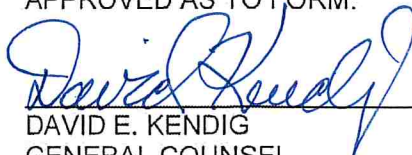
ORANGE COUNTY FIRE AUTHORITY:

\_\_\_\_\_  
Michele Steggell, Chair  
OCFA Board of Directors

ATTEST:

\_\_\_\_\_  
MARIA D. HUIZAR,  
CLERK OF THE AUTHORITY

APPROVED AS TO FORM:

  
\_\_\_\_\_  
DAVID E. KENDIG  
GENERAL COUNSEL

CONTRACTOR:

Facilities Protection Systems  
\_\_\_\_\_  
(CORPORATION (NAME - TYPE))

BY: Jack Gerard

\_\_\_\_\_  
(PRINT)

  
\_\_\_\_\_  
(SIGNATURE)

General Manager

\_\_\_\_\_  
(TITLE)

BY: \_\_\_\_\_

(PRINT)

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
(TITLE)

NOTE:

SIGNATURES OF CORPORATE OFFICIALS MUST BE NOTARIZED, ATTACH JURAT.



# ORANGE COUNTY FIRE AUTHORITY FORMAL INVITATION FOR BIDS

## CLEAN AGENT FIRE SUPPRESSION SYSTEM FOR PROJECTS EXCEEDING \$200,000

March 3, 2022

Solicitation No. RO2537A

The Orange County Fire Authority is requesting bids to establish a construction agreement for the purchase and installation of a Clean Agent Fire Suppression System at OCFA Regional Fire Operations and Training Center (RFOTC) located at 1 Fire Authority Rd., Irvine, CA 92602, as specified herein.

### **THIS PROJECT IS CONSIDERED A PUBLIC WORK.**

Pursuant to SB 854, no contractor or subcontractor may be awarded a contract for a public works project unless registered with the CA Department of Industrial Relations per California Labor Code section 1725.5. This project is a public work and is subject to compliance monitoring and enforcement.

### **MANDATORY REQUIREMENTS:**

- Meet Minimum Qualifications
- Attendance at Job Walk on **3/21/2022**
- Contractors' License: **B, C-16, C-10**
- Registration with the California Department of Industrial Relations
- Bid Bond - 10% of Bid Amount (*All Bidders*)
- Faithful Performance Bond – 100% of Agreement Price (*Awarded Contractor Only*)
- Payment Bond – 100% of Agreement Price (*Awarded Contractor Only*)

### **BID SUBMITTALS:**

- Bids will be received no later than **11:00 A.M. on 4/6/2022**
- **Only paper bids will be accepted for this solicitation**
- Bids may be hand delivered or mailed to Orange County Fire Authority, Purchasing Department, 1 Fire Authority Road, Building C, Irvine, CA 92602 no later than the date and time specified.
- One (1) original hard copy and one (1) duplicate hard copy shall be sent to the attention of the Purchasing Section, within said time limit, in a sealed envelope.
- The envelope should include the Bidder's Business Name, Solicitation Number, and the Due Date.

### **LATE BIDS WILL NOT BE ACCEPTED.**

Any questions concerning this Formal Invitation for Bids or the specifications should be submitted on-line via the Q&A Module available through PlanetBids before **5:00 P.M. on 3/21/2022**. OCFA will publish a response to all inquiries through the e-procurement system and/or may issue an addendum as a result.

**Rothchild Ong**, Assistant Purchasing Agent  
rothchildong@ocfa.org | 714-573-6642

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**SECTION 1: NOTICE INVITING BIDS**

**1A: ORANGE COUNTY FIRE AUTHORITY NOTICE INVITING SEALED BIDS  
FOR CONSTRUCTION OF PROJECT NAME**

=====

**ORANGE COUNTY FIRE AUTHORITY REQUEST FOR QUALIFICATIONS:** SCOPE: Purchase, installation, and upgrade of a Clean Agent Fire Suppression System at OCFA Regional Fire Operations and Training Center (RFOTC) located at 1 Fire Authority Rd., Irvine, CA 92602. For official bid documents visit: <https://www.planetbids.com/portal/portal.cfm?CompanyID=14773>. A MANDATORY job walk will be held March 21, 2022 AT 8:30AM. Bid submittals will be accepted until April 6, 2022 AT 11:00 A.M.

=====

**Published:** Orange County Register  
**FIRST PUBLICATION DATE:** March 7, 2022  
**SECOND PUBLICATION DATE:** March 14, 2022

**1B: SOLICITATION INFORMATION****1. ABBREVIATIONS**

IFB: Invitation for Bids

OCFA: Orange County Fire Authority

DIR: California Department of Industrial Relations

CSLB: California Contractors State License Board

PCC: California Public Contract Code

**2. OBJECTIVE**

The Orange County Fire Authority is requesting bids to establish a construction agreement for the purchase and installation and upgrade of a Clean Agent Fire Suppression System at OCFA Regional Fire Operations and Training Center (RFOTC) located at 1 Fire Authority Rd., Irvine, CA 92602, as specified herein., as specified herein. Project work will be coordinated by the OCFA Property Management section.

**3. MANDATORY SITE INSPECTION**

A mandatory job walk for prime contractors will be held on **MONDAY, MARCH 21, 2022 at 8:30A.M. at OCFA RFOTC located at 1 Fire Authority Rd. Irvine, CA 92602.**

Contractor's representative must attend the entirety of the job walk. **Late arrivals will not be granted access to the site, nor permitted to attend the job walk.** This informational meeting will be held to allow for site inspection and questions or clarifications concerning OCFA's IFB process and subsequent contract award. Prospective Bidders should be familiar with the IFB prior to attending the job walk.

**DUE TO COVID-19, ATTENDEES WHO ARE NOT FULLY VACCINATED MUST PROVIDE AND ARE REQUIRED TO WEAR A MASK DURING THE JOB WALK. MASKS ARE NOT REQUIRED FOR FULLY VACCINATED ATTENDEES**

**4. CONTRACTOR MINIMUM QUALIFICATIONS**

Bidder must meet the following minimum qualifications in order to have its response considered:

- **Current and valid B, C-16, C-10 Contractor's License issued by the California Contractor State License Board**
- **Current and valid California Department of Industrial Relations registration**
- **Minimum Five (5) years' experience providing the same or similar services**

**5. DUE DATE**

Bids will be received no later than **11:00 AM on 4/6/2022**. Late submittals will not be accepted. There will be a public opening of the bids on the specified due date and time in the Purchasing Office at the OCFA's Regional Fire Operations and Training Center located at 1 Fire Authority Road, Irvine, CA 92602. If attending the bid opening, please allow time to check in at the Reception Desk.

**6. SUBMITTAL INSTRUCTIONS**

The Bid Response Forms are available for download on OCFA's online bidding platform, PlanetBids. Bids must be prepared using the response forms included in this IFB document. Bids shall be executed by an authorized signatory. Contractors are to fill in all blank spaces (insert "N/A" where the answer is not applicable). Contractors are to initial all interlineations, annotations, deletions, alterations, erasures and other modifications on the forms. Deviations in the form may result in the bid being deemed non-responsive. **Only paper bids will be accepted for this solicitation.**

Bids may be hand delivered or mailed to Orange County Fire Authority, Purchasing Department, 1 Fire Authority Road, Building C, Irvine, CA 92602 no later than the date and time specified in Section 5 above. One (1) original hard copy and one (1) duplicate hard copy shall be sent to the attention of the Purchasing

Section, within said time limit, in a sealed envelope. The envelope should include the Bidder's Business Name, Solicitation Number, and the Due Date. (Failure to include a duplicate hard copy will not cause an otherwise responsive bid to be deemed non-responsive.)

Any vendor who wishes his or her bid to be considered for award is responsible for ensuring that it is complete and received by the Purchasing Office on or before the due date and time. **Facsimile, electronic or e-mail bids will not be considered.**

## 7. INQUIRIES

Any questions related to the IFB shall be directed to the Assistant Purchasing Agent, Rothchild Ong. Questions and comments must be submitted via this bid's Q&A module on the PlanetBids website no later than **5:00 P.M. on 3/21/2022**. The inquirer's name, company, address, phone number should be included. Verbal interpretations or clarifications on the part of OCFA will be without legal effect. Only responses submitted in writing via the Q&A module or addendum will be binding.

## 8. SCHEDULE OF IMPORTANT DATES

Invitation for Bid Issue Date	<b>March 3, 2022</b>
Mandatory Job Walk	<b>March 21, 2022</b>
Final Day to Submit Questions	<b>March 21, 2022</b>
Deadline to Submit Bid Response	<b>April 6, 2022</b>

## 9. CONTRACTOR RESPONSIBILITIES

### 9.1 MATERIAL AND LABOR

Contractor shall provide all permits, material, labor, tools and supplies to complete the project as described herein. See Section 5 for detailed information on these requirements and additional components that must be included in Contractor's bid and pricing.

### 9.2 CSLB LICENSE

Contractor and all subcontractors shall possess a valid California **B, C-16, C-10** or specialty Contractor's license, as required by California law, at the time of bid submission, pursuant to California Public Contract Code Section 3300 and Business and Professions Code Section 7028.15. The successful contractor and all subcontractors must maintain the license throughout the duration of the project.

### 9.3 PREVAILING WAGE AND COMPLIANCE MONITORING

Contractor and all subcontractors shall conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hour notice, payroll records, and apprentice and trainee employment requirements, for all Services on the above Project, including, without limitation, the State labor compliance monitoring and enforcement by the Compliance Monitoring Unit of the Department of Industrial Relations. The successful contractor and all subcontractors must maintain DIR registration throughout the duration of the project.

### 9.4 STANDARD SPECIFICATIONS

OCFA relies on the standard specifications, CSI and Greenbook applicable in the jurisdiction where the project is located, as modified by the local jurisdiction.

### 9.5 BUSINESS LICENSE REQUIREMENTS

Contractor and all subcontractors shall conform to the requirements of the city in which the project is located (or the requirements of the County if the project is located within an unincorporated area) and shall maintain active business license(s) as required by the jurisdiction(s) in which the project

is located. The successful contractor and all subcontractors must remain in compliance with these requirements throughout the duration of the project.

#### **9.6 WARRANTY**

In addition to any warranties specified in the drawings and any manufacturer's warranty, Contractor shall warrant the workmanship and manufacturing for a minimum of one year.

### **10. OCFA RESPONSIBILITIES**

OCFA will coordinate with training operations to ensure Contractor has access to necessary areas to perform work. OCFA shall be responsible for the registration of the project with the CA DIR subsequent to contract award.

### **11. DELIVERABLES**

#### **11.1 PROJECT COMPONENTS**

**11.1.1 INSTALL TWO (2) NEW CLEAN AGENT TOTAL FLOOD FIRE SUPPRESSION SYSTEMS TO PROVIDE INDEPENDENT PROTECTION AS SPECIFIED.**

**11.1.2 INSTALL SYSTEM FOR THE FIRE SUPPRESSION SYSTEM TO SEND AUTOMATIC SIGNALS TO THE BUILDING FIRE ALARM SYSTEM AS SPECIFIED.**

**11.1.3 INSTALL SYSTEM FOR THE FIRE SUPPRESSION SYSTEM TO PROVIDE BATTERY BACKUP AS A SECONDARY POWER SOURCE AS SPECIFIED.**

**11.1.4 INSTALL A FIRE SUPPRESSION SYSTEM DESIGNED IN ACCORDANCE WITH THE PROVIDED STANDARDS AS SPECIFIED.**

**11.1.5 PROVIDE ASPIRATING SMOKE DETECTION IN RELATED AREAS.**

#### **11.2 SPECIFICATIONS**

##### **11.2.1 MINIMUM SPECIFICATIONS**

The purpose of the information provided herein is to establish the minimum requirements for the supplies, materials, and equipment used for this project. It is not the intention of OCFA to exclude suppliers of similar or equal products of the types specified. Provided specifications, brands, and/or manufacturers describe OCFA expectations for the equipment, supplies and materials to be acquired.

##### **11.2.2 EQUIVALENT ALTERNATE ITEMS**

###### **11.2.2.1 EQUIPMENT SUBMITTALS**

As noted throughout Section 5, deviations from the specifications provided herein are not preferred but in some instances may be accepted. OCFA retains the sole right to determine whether proposed deviations to the specified items are acceptable. Any bidder offering items or equipment as equivalent alternatives to those items specified must submit documentation in accordance with the requirements outlined in Section 5 to substantiate that the item is equal no less than ten (10) business days prior to the bid deadline. Failure to do so may result in the bid that includes such alternative(s) being deemed non-responsive. As part of the evaluation of proposed alternate items, OCFA may request additional product information or product samples. Such information or samples must be submitted at no expense to OCFA by an agreed-upon due date for inspection and approval prior to contract award. Failure to comply with the request, or failure of the proposed alternate product to meet the required specifications, may be cause for OCFA to deem the bid that includes such alternative(s) to be non-responsive.

###### **11.2.2.1 ADDITIONAL SUBMITTALS**

Contractor shall submit for approval all items and documentation prior to beginning work in accordance with the requirements outlined in Section 5. In addition to the requirements specified in Section 5, any equivalent alternate items offered as a submittal during the course of construction must include documentation to substantiate that the item is equal. As part of the evaluation of proposed alternate items, OCFA may request additional product information or product samples. Such information or samples must be submitted at no expense to OCFA by an agreed-upon due date for inspection and approval prior to installation. Failure to comply with the request, or failure of the proposed alternate product to meet the required specifications, may be cause for OCFA to deem the Contractor to have caused a delay in the project, to be remedied by the assessment of liquidated damages, as described in the Contract Documents (see Section 4).

### **11.2.3 MATERIALS**

Materials shall be pure, unadulterated, first quality and shall be delivered to the project in original unbroken packages bearing the maker's name and brand number. Materials shall comply with all requirements described in Section 5. Materials shall be submitted for approval prior to use. Contractor must furnish additional stock of materials, as specified in Section 5.

OCFA intends to purchase and keep as inventory commonly replaced items for the purpose of expediting future repairs. Should Contractor or subcontractors utilize this inventory to perform repairs, use of these items will not void or otherwise negatively affect the warranty. Contractor or subcontractors must replace the stock at no cost to OCFA.

## **11.3 PROJECT EXECUTION**

### **11.3.1 WORKMANSHIP**

Contractor shall:

- a. Perform work under conditions best suited to produce the specified deliverables.
- b. Correct all work that does not comply with the intent of the specification and/or does not meet the approval of OCFA.
- c. Protect all adjacent areas and surfaces from damage from work performed (i.e. automobiles, sidewalks, asphalt, concrete, plants, etc.).
- d. Coordinate with the OCFA before using noisy, motorized equipment.
- e. Take all necessary steps to protect the public and all property concerned.

### **11.3.2 CLEAN-UP**

Contractor shall, at completion of work each day, remove all debris and rubbish resulting from this project and leave work spaces in a clean condition subject to OCFA approval.

### **11.3.3 PROTECTION**

Contractor shall protect work of other trades, correct damage by cleaning, repairing or replacing, and repainting, as approved by OCFA.

### **11.3.4 REPAIR**

At completion of work, Contractor shall repair and/or restore damaged work of other trades.

### **11.3.5 ACCEPTANCE DOCUMENTATION**

Upon completion of work, Contractor shall provide the documents specified herein for final review and acceptance by OCFA.

### **11.3.6 HEALTH AND SAFETY**

Contractor shall ensure compliance at all times with the Health and Safety requirements in Section 86 of the Contract Agreement.

## **11.4 SCHEDULES, TIMELINES, AND MEETINGS**

### **11.4.1 COORDINATION OF WORK**

Prior to beginning work, Contractor shall prepare a schedule and submit to OCFA for approval. Contractor shall coordinate the commencement of all work with OCFA so as not to cause inconvenience to the facility. Contractor parking, along with the placement of all trailers, equipment and materials must be coordinated with OCFA in advance.

All work at the location must be coordinated with OCFA in a manner that shall accommodate the requirements of OCFA personnel. Contractor shall post notices in conspicuous places at least three to five days in advance warning occupants what date work will begin. Work, deliveries or efforts which may impede existing circulation roadways shall be scheduled at least seven (7) days in advance.

### **11.4.2 HOURS OF WORK**

Work shall be performed Monday through Friday between the hours of 7:00 AM and 5:00 PM. Overtime and after-hours work is not permitted, unless otherwise coordinated with and approved by the city in which the project is located.

### **11.4.3 PROJECT TIMELINE**

OCFA anticipates that

- Project work will begin 14 days after the agreement and all other required award documents are received and approved by OCFA
- Project will be complete within 180 days

## **12. MEETINGS**

Meetings between OCFA and Contractor will include, at a minimum, the following:

### **12.1 PRE-AWARD MEETING**

This meeting will aid OCFA in determining responsibility of Contractor and to finalize the specifications and services to be provided.

### **12.2 PRE-CONSTRUCTION JOB WALKS**

These meetings with OCFA, the staff of the city in which the project is located, and others as necessary and/or required by law will be coordinated by the Contractor.

### **12.3 PROJECT STATUS MEETINGS**

Weekly meetings held in person, unless otherwise determined by OCFA.

### **12.4 ACCEPTANCE**

Meetings regarding project acceptance and warranty punch list items.

### **12.5 ADDITIONAL**

Other meetings deemed necessary by OCFA for contract compliance.

## **SECTION 2: INSTRUCTIONS TO BIDDERS**

### **13.1 AMENDMENT OF INVITATION FOR BID**

Notification via email will be sent to vendors listed as "Prospective Bidders" on PlanetBids in the event that a Q&A set or amendment to the IFB is released. The bidder shall acknowledge receipt of an amendment to this Invitation for Bid on the bid submittal. The OCFA reserves the right to revise the bid documents prior to the bid opening date. Revisions, if any, shall be made by written Addenda.

**13.1.1** Pursuant to Public Contract Code Section 4104.5, if OCFA issues an Addendum later than seventy-two (72) hours prior to the deadline for submission of bids, and the Addendum requires material changes, additions or deletions to the description of the work to be performed or the content, form or manner of submission of bids, OCFA will extend the deadline for submission of bids by at least seventy-two (72) hours. Otherwise, OCFA may determine, at its sole discretion, whether an Addendum requires that the date set for opening bids be postponed. Announcement of a new date, if any, will be made by Addenda. All bidders will be notified by e-mail when an addendum is posted to PlanetBids.

**All Addenda issued before the time bids are due shall form part of the contract documents. It is the bidder's responsibility to be familiar with Addenda issued. OCFA will deem any bid that fails to acknowledge all Addenda to be non-responsive. Bidders must acknowledge the Addenda in writing on the form provided in the bid documents.**

### **13.2 INTERPRETATION OF BID DOCUMENTS**

Discrepancies in, and/or omissions from the Specifications or other bid documents or questions as to their meaning shall be immediately brought to the attention of the Purchasing Manager by submission of a written request for interpretation or correction thereof no later than the deadline specified for questions specified in Section 1 of the Notice Inviting Bids. The person submitting the request will be responsible for its prompt delivery.

Any interpretation of the bid documents will be made only by addendum duly issued electronically to each bidder registered on the prospective bidder's list. The OCFA will not be responsible for any explanations or interpretations provided in any other manner. No person is authorized to make any oral interpretation of any provision in the bid documents to any bidder, and no bidder should rely on any such oral interpretation.

### **14. DISPUTES RELATING TO THIS INVITATION FOR BID**

In the event a dispute arises concerning any aspect of this bid, including specifications and/or process, the party bringing the dispute shall submit a written request for resolution to the Purchasing Department prior to the IFB's due date and time.

In the event a dispute arises regarding this IFB's Recommendation for Award or Denial of Award, the party bringing the dispute must do so in accordance with OCFA's **Purchasing Ordinance, Article IX. Legal and Contractual Remedies**, which can be found online under "Doing Business with OCFA" at <https://www.ocfa.org/Uploads/Purchasing/OCFA%20Purchasing%20Ordinance.pdf>.

### **15. WITHDRAWAL OF BID**

#### **15.1 PRIOR TO BID DUE DATE AND TIME**

At any time prior to the specified due date specified in IFB Section 1, an Offeror may formally withdraw the bid by a written letter, facsimile or electronic mail from the Offeror or an authorized representative to the OCFA Purchasing Manager, provided such letter, facsimile or electronic mail is actually and timely received by the OCFA Purchasing Manager. **Telephonic or oral withdrawals shall not be considered.**

**15.2 AFTER BID DUE DATE AND TIME**

In accordance with California Public Contract Code sections 5100-5110, Bidder shall not be relieved of the obligations of its bid unless by consent of OCFA, nor shall any change be made in the bid because of mistake. Bids may be withdrawn for mistake upon mutual written agreement of Bidder and OCFA, or if all of the following conditions apply:

- A mistake is made in the bid; and
- Written notice is provided to OCFA within five (5) working days from the date of the public opening specifying in the notice in detail how the mistake occurred. Telephonic or oral withdrawals will not be considered; and
- The mistake makes the bid materially different than Bidder intended it to be; and
- The mistake was made in filling out the bid and was not due to error in judgment or to carelessness in inspecting the site of the work, or in reading the plans or specifications.

Any bidder who claims a mistake or who forfeits its bid security (Bidder's Bond) shall be prohibited from participating in further bidding on the project on which the mistake was claimed or bid security was forfeited.

**16. INDEMNIFICATION**

Bidder agrees to protect, defend, indemnify, save and hold harmless the OCFA and its officers, officials, employees and volunteers from any and all claims, liabilities, expenses, or damages of any nature, including attorney fees, for injury to or death of any person (Bidder's employees included), and for injury to any property, including consequential damages of any nature resulting there from, arising out of or in any way connected with the Bidder's submittal.

**17. RESERVATIONS (RIGHTS RESERVED TO OCFA)**

OCFA reserves the right to reject any or all bids or any part thereof; to rebid the solicitation; to reject non-responsive or non-responsible bids; to reject unbalanced bids; to reject bids where the terms, prices, and/or awards are conditioned upon another event; to reject individual bids for failure to meet any requirement; to award by item, part or portion of an item, group of items, or total; to make multiple awards; to investigate the qualifications of any bidder under consideration; to modify or amend this IFB in writing; to waive minor irregularities, defects, omissions, technicalities or form errors in any bid. Waiver of one irregularity does not constitute waiver of any other irregularity. OCFA may seek clarification of the bid from the bidder at any time, and failure to respond is cause for rejection. OCFA is required to make an award that is in the best interest of the OCFA. All decisions on compliance, evaluation, terms and conditions shall be made solely at the OCFA's discretion and made to favor the OCFA. OCFA may cancel this solicitation at any time.

The OCFA may reject any bid which, in its sole opinion, does not accurately reflect the cost to perform the work as compared to other bids received and/or to project estimates. In addition, because the OCFA may elect to include or exclude any of the bid items and alternate bid items (if applicable) at its sole and absolute discretion, each bidder must ensure that each bid items contain a proportionate share of profit, overhead and other costs or expenses which will be incurred by the bidder. The OCFA may deem any bid which unevenly weights or allocates costs, including but not limited to overhead and profit to one or more particular bid items as non-responsive. No contract will be executed unless the bidder is licensed in accordance with the provisions of the State law.

**18. INSPECTION OF SITE/MANDATORY MEETING AND JOB WALK**

Each prospective bidder is responsible for becoming familiar with the conditions of the project site as well as those relating to the construction and labor of the project, to fully understand the facilities, conditions, difficulties and restrictions which may impact the completion of the project. Attendance by a representative of each prospective contractor at the mandatory meeting as stated in the request for

informal bid is required. **Any bid received by a contractor not represented at the mandatory meeting will be rejected and deemed non-responsive.**

#### **19. CONTRACTOR AND SUBCONTRACTOR LICENSING REQUIREMENTS**

Bidder and all listed Subcontractors shall possess valid California Contractor's licenses, as required herein and as appropriate for each specialty subcontracted at the time of bid submission, pursuant to California Public Contract Code Section 3300 and Business and Professions Code Section 7028.15. Licenses must be maintained throughout the duration of the contract resulting from this IFB.

Pursuant to Section 7028.15 of the Business and Professions Code, the OCFA shall consider any bid submitted by a contractor not currently licensed in accordance with California law and pursuant to the requirements found in the bid documents to be nonresponsive, and the OCFA shall reject the bid. The OCFA shall have the right to request evidence of all valid license(s) currently held by the bidder and each of the subcontractors listed in the bid before awarding the contract. In such cases, Bidders shall provide evidence of valid licenses satisfactory to the OCFA within five (5) calendar days. Pursuant to Public Contract Code Section 20676, sellers of "mined material" must be on an approved list of sellers published pursuant to Public Resources Code Section 2717(b) in order to supply mined material for this contract.

#### **20. SB 854 DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION**

No contractor or subcontractor may be listed on an offer for a public works project unless registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5, with limited exceptions from this requirement for bid purposes only under California Labor Code Section 1771.1(a). No contractor or subcontractor may be awarded a contract for public work, or engage in the performance of any public works project unless registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5. Pursuant to SB 854, the DIR registration number of each subcontractor must be identified on the bid; **failure to do so may result in the bid being deemed non-responsive.**

**The contract resulting from this solicitation is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. OCFA reports all public works contracts to the DIR subsequent to contract execution.**

The OCFA will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining bid pricing, and will not under any circumstances be considered as the basis of a claim against the OCFA on the contract resulting from this solicitation.

#### **21. PREVAILING WAGE**

This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the applicable prevailing wage rates will be enforced. The work is subject to the payment of not less than prevailing wages under California Labor Code Section 1770 et seq. Contractor must comply with all related provision of the California Labor Code if awarded the agreement, including but not limited to:

- The provisions of California Labor Code Section 1775 relating to payment of prevailing wages, and
- Section 1777.5 relating to employment of apprentices, and
- Section 1811-1813 relating to the payment of overtime.

Failure to comply with the applicable prevailing wage, overtime, and apprenticeship requirements may result in penalties.

Contractors are hereby notified that the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification or type of worker needed to perform the work under the contract which will be awarded to the successful contractor.

Additional information is available at the Department of Industrial Relations website at:

**<http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>**.

Contractors are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Additional information on the Compliance Monitoring Unit requirements can be found at:

**<https://www.dir.ca.gov/Public-Works/PublicWorksEnforcement.html>**.

## **22. DEBARMENT OF CONTRACTORS**

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Section 1777.1 or Section 1777.7 of the Labor Code and Federal "Excluded Parties List System". Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to the OCFA. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project. In order to prohibit the procurement of any goods or services ultimately funded by Federal awards from debarred, suspended or otherwise excluded parties, each Contractor will be screened at the time of response to ensure the Contractor, its principal and their named subcontractors are not debarred, suspended or otherwise excluded by the United States Government in compliance with the requirements of 2 Code of Federal Regulations (CFR) 200.12 7 Code of Federal Regulations (CFR) 3016.35, 28 CFR 66.35, 29 CFR 97.35, 34 CFR 80.35, 45 CFR 92.35 and Executive Order 12549.

## **23. CONTRACT**

A response to this IFB is an offer to contract with OCFA based upon the terms, conditions, and specifications contained within this document, all Addenda, and the Construction Services Agreement, attached hereto as Section 4. Submission of a bid confers on the bidder no right to an award or to a subsequent contract. No binding contract will exist between the bidder and the OCFA unless and until the OCFA executes a written contract or purchase order.

## **24. BID DOCUMENTS & FORMS**

Bid submittals are to be prepared using the bid forms which are included in this IFB Document. Bids shall be executed by an authorized signatory. As a condition of bidding and in accordance with the provisions of Section 20101 of the California Public Contract Code, prospective bidders are required to submit all the bid forms listed in the Bidder's Checklist. Failure to do so may result in the rejection of the bid.

## **25. PREPARATION OF BID**

All bids shall incorporate the forms provided in this IFB document. It is permissible to copy these forms as required. Facsimiles or electronic mail bids shall not be considered.

The Bid form and any solicitation amendments must be signed and returned with the bid. The forms submitted shall be signed by a person authorized to submit an offer. Authorized signature on the Bid forms shall constitute an irrevocable offer to provide services specified herein. Offeror shall submit any additional requested documentation, signifying intent to be bound by the terms of the agreement.

- The authorized person signing the bid shall initial all interlineations, annotations, deletions, alterations, erasures and other modifications on the bid.
- Periods of time, stated as days, shall be in calendar days.
- It is the responsibility of all Offerors to examine the entire Request for Bid package and seek clarification of any requirement that may not be clear and to check all responses for accuracy before submitting a bid. Negligence in preparing a bid confers no right of withdrawal after the due date and time.
- OCFA shall not reimburse the cost of developing, presenting, submitting or providing any response to this solicitation.
- Offeror must list any subcontractors to be utilized in the performance of the services specified herein. For each subcontractor, details on respective qualifications must be included.
- Each bidder shall submit its bid in strict conformity with the requirements of the bid documents. Unauthorized additions, modifications, revisions, conditions, limitations, exclusions or provisions attached to a bid may render it non-responsive and may cause its rejection. Bidders shall not delete, modify, supplement printed matter on the bid forms.
- **Verbal, telephonic, facsimile, email or other electronic bids or modifications will not be considered.**

## 26. BID CERTIFICATION

By signature on the Bid Response Forms, Bidder certifies:

- The Bidder has thoroughly examined and become familiar with the requirements of this IFB;
- Clear understanding of the rules as defined in this IFB and compliance with all terms and conditions specified herein;
- The Bidder is an authorized and/or certified retailer and/or installer of the specified items;
- The submission of the bid did not involve collusion or other anti-competitive practices;
- The bid is compliant with all state and federal laws;
- The Bidder will not discriminate against any employee or applicant for employment in violation of Federal or State law;
- The Bidder has not given, offered to give, and does not intend to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to any Director, officer, or employee of OCFA in connection with the submitted offer;
- That the individual signing the submittal is an authorized agent for the Bidder and has the actual authority to legally bind the Bidder to the Contract;
- That its principal and named subcontractors are not debarred, suspended or otherwise excluded by the United States Government, in compliance with the requirements of 7 Code of Federal Regulations (CFR) 3016.35, 28 CFR 66.35, 29 CFR 97.35, 34 CFR 80.35, 45 CFR 92.35 and Executive Order 12549.

## 27. ACCEPTANCE PERIOD

Unless otherwise specified herein, bids are firm and may be accepted by OCFA at any time within 180 days of bid opening.

## 28. BID OPENING

All the bids opened by the OCFA will be subject to further evaluation with respect to responsiveness of the bid and for purposes of determining that the bidder is responsible.

## 29. SUBLETTING AND SUBCONTRACTING.

Pursuant to the Subletting and Subcontracting Fair Practices Act (commencing with Section 4100 of the Public Contract Code), bidders are required to list in their proposal the name, business address, California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render services in or about the construction of the work or improvement, or a subcontractor who specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and

Specifications in excess of 1/2 of 1% of the prime Contractor's total bid or \$10,000, whichever is greater. If a subcontractor's California contractor license number or public works contractor registration number are submitted incorrectly in the bid, it will not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected subcontractor's California contractor license number is submitted to OCFA within 24 hours after the bid opening.

If the Bidder fails to list a subcontractor for a portion of work or if the Bidder lists more than one subcontractor of the same portion of work in excess of 1/2 of 1% of the total bid or \$10,000, whichever is greater, the Bidder agrees that it is fully qualified to perform that portion of work itself, and that the Bidder shall perform that portion of work itself. If after award of the contract, the Bidder actually subcontracts that portion of work, except as provided in Public Contract Code Section 4107 or 4109, the Bidder shall be subject to the penalties listed in Section 4111 of the Public Contract Code. It is the OCFA's intent for the Subletting and Subcontracting Fair Practices Act to apply to all phases of the work.

#### **29.1 NO INCREASE IN BID COST DUE TO SUBSTITUTION OF SUBCONTRACTOR.**

In the event that a subcontractor is substituted in any manner for any reason, any increased cost related to such substitution shall be the sole responsibility of the Contractor. Such substitution shall not cause or result, directly or indirectly, in any increase in the bid price. This subsection shall not be construed to be prior consent to substitution of subcontractors, nor to authorize any substitution that is prohibited by the Subletting and Subcontracting Fair Practices Act.

### **30. PRICING**

Contractors shall provide itemized pricing. No aggregate bids will be considered. The bid must state the amount for which the contractor offers to supply all labor, materials, equipment, tools, transportation, services and applicable taxes to perform all work specified. Bids shall not contain any conditions, limitations or provisions for the work to be done. Alternative bids will not be considered unless requested. The contractor shall set forth for each item of work, in clearly legible figures, a unit item price and a total for each item in the respective spaces provided. In case of a variation between the unit price and the totals shown by the contractor, the unit price will take precedence. In case of discrepancy between the numerical lump sum price and the written lump sum price, the written lump sum price shall prevail.

### **31. TAXES**

No mention shall be made in the proposal of Sales Tax, Use Tax, or any other tax, as all amounts set forth in the bid will be deemed and held to include any such taxes that may be applicable. Bidder acknowledges and agrees that OCFA shall not be responsible for the payment of any increase in any Sales Tax, Use Tax, or any other tax that takes effect after award.

### **32. COMPLIANCE WITH LAWS**

All bids shall comply with current and applicable federal, state, and local laws relative thereto.

### **33. CRITERIA FOR EVALUATION AND AWARD**

The OCFA will award the contract to the lowest responsive, responsible bidder as required by law. The OCFA evaluates three categories of information: responsiveness, responsibility, and price. Bids must meet the following responsiveness and responsibility criteria in order to be considered for award:

- a) RESPONSIVENESS: OCFA will determine whether the bid complies with the instructions for submitting bids including completeness of bid which encompasses the inclusion of all required attachments and submissions. The OCFA will reject any bids that are submitted late. Failure to meet the specifications, project timeline, product availability, or other requirements may result in rejection.

- b) **RESPONSIBILITY:** OCFA will determine whether the bidder is one with whom it can or should do business. Factors that OCFA may evaluate to determine whether a contractor is a “responsible bidder” for purposes of the Public Contract Code include, but are not limited to: excessively high or low priced bids, past performance, references (including those found outside the bid), compliance with applicable laws - including tax laws, business standing, bidder's record of performance and integrity - e.g. has the bidder been delinquent or unfaithful to any contract with OCFA, whether the bidder is qualified legally to contract with the OCFA, financial stability and the perceived ability to perform completely as specified. A bidder must at all times have financial resources sufficient, in the opinion of the OCFA, to ensure performance of the contract and must provide proof upon request. OCFA staff may also use Dun & Bradstreet and/or any generally available industry information to assist in making such determinations. The OCFA reserves the right to inspect and review bidder's facilities, equipment and personnel and those of any identified subcontractors, and by submitting a bid, bidder consents thereto. The OCFA will determine whether any failure to supply information, or the quality of the information, will result in rejection.
- c) **PRICE:** OCFA will then evaluate bids that have met the requirements above for price, quality of product, life cycle cost, maintenance, warranty, etc.

#### **34. GROUNDS FOR DISQUALIFICATION**

OCFA may disqualify a submittal for any of the following reasons:

- Contact regarding this procurement is made with any OCFA Director, officer or employee other than those in the Purchasing Department from the time of issuance until the end of the dispute period;
- Evidence of collusion, directly or indirectly, among bidders regarding the amount, terms, or conditions of this solicitation is found;
- Evidence of submitting incorrect information in the response to this solicitation or misrepresenting or failing to disclose material facts during the award process is found;
- Submittal of added terms, conditions, or agreements with the bid document;
- Offering of gifts or souvenirs, even of minimal value, to OCFA Directors, officers or employees;
- The existence of any lawsuit, unresolved contractual claim or dispute between the Bidder and OCFA;
- Evidence of the Bidder's inability to successfully complete the responsibilities and obligations of the bid is found;
- Bidder's default under any OCFA agreement.
- No bidder shall be allowed to make, submit or be interested in more than one bid. No person, firm, corporation, or other entity may submit a sub-proposal to a bidder, or quote prices of materials to a bidder when also submitting as a prime on the same project.

#### **35. PUBLIC RECORD**

All bids submitted in response to this IFB shall become the property of OCFA and shall become a matter of public record available for review when required by law, including but not limited to the California Public Records Act.

#### **36. CLAYTON ACT AND CARTWRIGHT ACT**

In accordance with Section 7103.5 of the Public Contract Code, in entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to OCFA all rights, and interest in and all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

**37. INSURANCE**

The successful bidder shall procure the insurance in the form and in the amount specified in the Contract Documents, including but not limited to the General Conditions. Failure to do so may result in forfeiture of the bid guarantee. No time extensions or extra payments shall be made to contractor for delays it may encounter in obtaining such coverage.

Contractor shall not commence work under the agreement until he/she has obtained all required insurance, including any and all endorsements, and the insurance has been approved by the OCFA as to form, amount, and carrier, nor shall Contractor allow any subcontractor to commence any work until all insurance required of the subcontractor has been obtained and approved.

**38. NOTICE OF INTENT TO AWARD/EXECUTION OF CONTRACT**

A notification of OCFA's intent to award contract ("Notice of Intent to Award") will be sent to the successful Offeror(s). Following receipt of the Notice of Intent to Award, and within fourteen (14) calendar days of the notice, the successful Offeror(s) shall complete and/or submit the items listed in Exhibit 4A: Transmittal Page – Bid Award Documents to the Purchasing & Materials Manager or designee.

**The successful contractor or any designated subcontractors shall not perform any work on the project prior to attending the pre-construction conference and executing the appropriate certification.** In case of failure of the Offeror(s) to execute and return all required documents in a form satisfactory to OCFA and within the time allowed, the OCFA may, at its option, consider that the Offeror(s) has/have abandoned the contract.

**39. SUBSTITUTION OF SECURITIES**

In conformance with Public Contract Code Section 22300, which is incorporated herein by this reference, the Contractor may substitute securities for any monies retained by the OCFA to ensure performance under the Contract or, in the alternative, may request payment of retention earned directly to an escrow agent.

At the request and expense of the Contractor, the Contractor has the option to deposit securities, which have been approved by the OCFA, with a State or Federally chartered bank as the escrow agent or require the OCFA to deposit 5% of each progress payment with the escrow agent. Said securities will be used as a substitute for retention earnings required to be withheld by the OCFA pursuant to the construction contract. Said securities shall have no obligation to any other construction contract for substitution of securities in lieu of retention. When the Contractor deposits the OCFA approved securities with the escrow agent, the escrow agent shall notify the OCFA within 10 calendar days of the deposit. Said securities shall be evaluated quarterly by the escrow agent to verify the current market value. If the current market value of said securities falls below the required amount, the escrow agent shall notify the Contractor and require additional securities and/or cash to be submitted for OCFA approval, and to be held in the escrow account to meet the Contractor's obligations. The escrow agent shall hold said securities until such time as the escrow agent receives written notification from the OCFA that the Contractor has satisfactorily completed his Contract obligations.

The type of securities deposited and the method of release shall be approved by the OCFA's Office of General Counsel.

If the Contractor chooses not to exercise its rights under Public Contract Code Section 22300, the full five percent (5%) retention will be deducted from all payments. The final retention will be authorized for payment thirty-five (35) days after the date of recordation of the Notice of Completion, if no stop notices have been filed. The OCFA may withhold from release of the final retention amounts authorized under Public Contracts Code Section 7107 and/or 125% of the cumulative amounts identified in all stop notices.

**40 AWARD AND EXECUTION OF CONTRACT.** If a bid bond is submitted with a 10% of Bid designation for the amount as noted in the OCFA Approved Bid Bond form, a revised Bid Bond with numerical dollar values, both in words and with digits, shall be submitted to the OCFA within three (3) working days of bid opening.

Within seven (7) calendar days after the date of the Notice of Apparent Low Bidder, the Contractor shall execute and return the following documents to the OCFA:

- All required evidence of insurance
- Two (2) Original Signed Contract Agreements

Within fourteen (14) calendar days after the date of the Notice of Award, the Contractor shall execute and return the following documents to the OCFA:

- |                             |                                     |
|-----------------------------|-------------------------------------|
| • Faithful Performance Bond | • Water Pollution Control Plan      |
| • Material and Labor Bond   | • Form W-9                          |
| • Construction Schedule     | • Encroachment Permit Application   |
| • Traffic Control Plan      | • Construction Materials Submittals |

**FAILURE TO COMPLY WITH ALL OF THE ABOVE WILL RESULT IN ANNULMENT OF THE AWARD AND FORFEITURE OF THE PROPOSAL GUARANTEE AT THE SOLE DISCRETION OF OCFA.**

The Contract Agreement shall not be considered binding upon the OCFA until executed by the authorized OCFA officials.

**SECTION 3: PROPOSAL DOCUMENTS****BID SUBMITTAL**

To achieve a uniform review process and obtain the maximum degree of comparability, it is required that the Bidder submit the following documents, organized in the manner specified below. All Bidders are expected to provide detailed answers where requested. Additional information, if provided, should be separately identified in the bid. **Failure to submit these documents may result in the bid being deemed non-responsive.**

- ☒ Transmittal Page One – IFB Response Forms *(Exhibit 3A)*
- ☒ Original Bidder's Bond *(Exhibit 3B)*
- ☒ Certification of Bid *(Exhibit 3C)*
- ☒ Non-Collusion Affidavit *(Exhibit 3D)*
- ☒ Contractor's Licensing Statement *(Exhibit 3E)*
- ☒ List of Subcontractors *(Exhibit 3F)*
- ☒ Designation of Sureties *(Exhibit 3G)*
- ☒ Bidder's Certification of Compliance with Insurance Requirements *(Exhibit 3H)*
- ☒ Certification of Site Examination *(Exhibit 3I)*
- ☒ Bid Sheets *(Exhibit 3J)*
- ☒ Project Approach and Schedule *(Exhibit 3K)*
- ☒ List of Project References *(Exhibit 3L)*
- ☒ Qualifications Questionnaire *(Exhibit 3M)*
- ☒ Party and Participant Disclosure Forms *(Exhibit 3N)*

**3A: TRANSMITTAL PAGE**

**TO:** Orange County Fire Authority  
**FROM:** Intelligent Technologies and Services, Inc  
 dba Facilities Protection Systems

(Legal Name of Contractor)

**PROJECT: RO2537 - CLEAN AGENT FIRE SUPPRESSION SYSTEM - RFOTC**

The contractor will accept in full payment for the work specified herein the following total lump sum amount, inclusive of all applicable taxes and markup (transferred from Exhibit 3J: Bid Sheets):

**BID LUMP SUM:****NUMERICAL: \$ 319,992.00****WRITTEN: Three hundred nineteen thousand nine hundred and ninety two dollars with zero cents****ACKNOWLEDGMENT OF ADDENDA:**

No.: 1 Dated: 3/25/22 No.: Dated:  
 No.: Dated: No.: Dated:

**BIDDER'S CHECKLIST:**

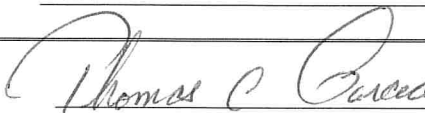
Bidder certifies that the following documents are included in its Bid:

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Transmittal Page (Exhibit 3A)                 | <input checked="" type="checkbox"/> List of Subcontractors (Exhibit 3F)   | <input checked="" type="checkbox"/> Project Approach and Schedule (Exhibit 3K)          |
| <input checked="" type="checkbox"/> Bidder's Bond (Exhibit 3B)                    | <input checked="" type="checkbox"/> Designation of Sureties (Exhibit 3G)  | <input checked="" type="checkbox"/> List of Project References (Exhibit 3L)             |
| <input checked="" type="checkbox"/> Certification of Bid (Exhibit 3C)             | <input checked="" type="checkbox"/> Bidder's Certification of Compliance with Insurance Requirements (Exhibit 3H) | <input checked="" type="checkbox"/> Qualifications Questionnaire (Exhibit 3M)           |
| <input checked="" type="checkbox"/> Contractor's Licensing Statement (Exhibit 3D) | <input checked="" type="checkbox"/> Certification of Site Examination (Exhibit 3I)                                | <input checked="" type="checkbox"/> Party and Participant Disclosure Forms (Exhibit 3N) |
| <input checked="" type="checkbox"/> Non-Collusion Affidavit (Exhibit 3E)          | <input checked="" type="checkbox"/> Bid Sheets (Exhibit 3J)   |   |

**MINIMUM QUALIFICATIONS:**

Bidder Meets the Minimum Qualifications as follows:

**CSLB License #:** 592289 **Expiration:** 4-30-2022  
**DIR Registration #:** 1000005555 **Expiration:** 6-30-2022  
**Number of Years of Experience:** 32

**SIGNATURE OF CONTRACTOR:****PRINTED NAME:** Thomas C. Garcia**TITLE:** Sales Manager

**3B: BIDDER'S BOND**

(10% of Agreement Price)

**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, <sup>Intelligent Technologies and Services, Inc.</sup> Intelligent Technologies and Services, Inc. dba Facilities Protection Systems as Principal ("Principal"), and Western Surety Company as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of South Dakota and authorized to do business as a surety in the State of California, are held and bound unto the Orange County Fire Authority ("OCFA") of Orange County, State of California as Obligee, in the sum of Ten Percent of Amount Bid Dollars (\$ 10% of Amount bid) lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the OCFA for all work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Project and, within the time and manner required under the Bid Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract ("Agreement"), in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the Agreement and to file the required performance and labor and material bonds, and to meet all other conditions to the Agreement between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to submit and execute the Agreement award documents as required in the Invitation for Bid Document within the timeline specified therein.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the OCFA awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

**[Signature Page Follows]**

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 5th day of April, 2022, accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

**CONTRACTOR:**

(Affix Corporate Seal)

Intelligent Technologies and Services, Inc.  
dba Facilities Protection Systems  
1150 West Central Avenue, Suite D, Brea, CA 92821

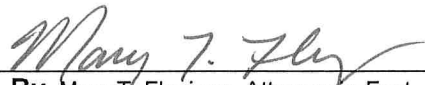
**Principal**  
**By**

Jack Gerard, Assistant Secretary

**Print Name and Title of Signatory****SURETY:**

(Affix Corporate Seal)

Western Surety Company  
151 N. Franklin Street Chicago, IL 60606 (312) 822-5000

**Surety**  
**By** Mary T. Flanagan, Attorney-in-Fact

Charles R. Teter III

**Name of California Agent of Surety**

777 S. Figueroa St., Suite 5200, Los Angeles, CA 90017

**Address of California Agent of Surety**

(213) 689-0550

**Telephone Number of California Agent of Surety**

Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of CALIFORNIA

County of ORANGE

On APRIL 5, 2022

before me, MARISOL JORDIN, Notary Public

personally appeared JACK GERARD

Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature [Signature]  
Notary Public Signature



Place Notary Public Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

## Description of Attached Document

Title or Type of Document \_\_\_\_\_

Document Date \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of Missouri  
County of Jackson



On April 5, 2022 before me, C. Stephens Griggs, Notary Public  
Date Name and Title of Notary

personally appeared Mary T. Flanigan  
Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

C. STEPHENS GRIGGS  
NOTARY PUBLIC-NOTARY SEAL  
STATE OF MISSOURI  
JACKSON COUNTY  
MY COMMISSION EXPIRES 6/21/2023  
COMMISSION # 15204185

Witness my hand and official seal.

Signature C. Stephens Griggs  
Notary Public Signature

Place Notary Public Seal Above

OPTIONAL

*Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

## Description of Attached Document

Title or Type of Document \_\_\_\_\_

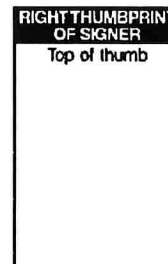
Document Date \_\_\_\_\_ Number of Pages: 1

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_
- Signer is representing \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_
- Signer is representing \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



# Western Surety Company

## POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

**Patrick T. Pribyl, Debra J. Scarborough, Mary T. Flanigan, Christy M. Braile, Jeffrey C. Carey, Charles R. Teter III, Evan D. Sizemore, Charissa D. Lecuyer, Rebecca S. Leal, C. Stephens Griggs, Tahitia M. Fry, Kellie A. Meyer, Veronica Lawver, Lauren Scott, Erin C. Lavin, Hillary D. Shepard, Individually**

of Kansas City, MO, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

### - In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 2nd day of December, 2021.



WESTERN SURETY COMPANY

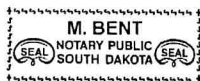
Paul T. Bruflat, Vice President

State of South Dakota }  
County of Minnehaha } ss

On this 2nd day of December, 2021, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



M. Bent, Notary Public

### CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 5th day of April, 2022.



WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Form F4280-7-2012

Go to [www.cnasurety.com](http://www.cnasurety.com) > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

**Authorizing By-Law**

**ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY**

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

STATE OF CALIFORNIA  
DEPARTMENT OF INSURANCE  
SAN FRANCISCO

AMENDED  
Certificate of Authority

THIS IS TO CERTIFY, That, pursuant to the Insurance Code of the State of California,

WESTERN SURETY COMPANY

of SIOUX FALLS, SOUTH DAKOTA, organized under the  
laws of SOUTH DAKOTA, subject to its Articles of Incorporation or  
other fundamental organizational documents, is hereby authorized to transact within this State,  
subject to all provisions of this Certificate, the following classes of insurance:

SURETY and LIABILITY

as such classes are now or may hereafter be defined in the Insurance Laws of the State of California.

THIS CERTIFICATE is expressly conditioned upon the holder hereof now and hereafter being in  
full compliance with all, and not in violation of any, of the applicable laws and lawful requirements  
made under authority of the laws of the State of California as long as such laws or requirements are  
in effect and applicable, and as such laws and requirements now are, or may hereafter be changed  
or amended.

IN WITNESS WHEREOF, effective as of the 21ST day  
of MARCH, 1975, I have hereunto set  
my hand and caused my official seal to be affixed this 21ST  
day of MARCH, 1975.

Fee

Rec. No.

Filed

By

WESLEY J. KINDER  
Insurance Commissioner

*William M. Healey*  
Deputy

NOTICE:

Qualification with the Secretary of State must be accomplished as required by the California Corporations Code promptly after issuance of this Certificate of Authority. Failure to do so will be a violation of Ins. Code Sec. 701 and will be grounds for revoking this Certificate of Authority pursuant to the covenants made in the application therefor and the conditions contained herein.

**3C: CERTIFICATION OF BID**

In responding to IFB RO2537 - CLEAN AGENT FIRE SUPPRESSION SYSTEM - RFOTC the undersigned Bidder(s) certifies the following:

1. Bidder agrees to provide all necessary labor, materials, equipment, and services to OCFA per the specifications contained herein and that all furnished labor is able to work in harmony with all other elements of labor employed or to be employed on the work.
2. Bidder further agrees to the terms and conditions specified herein, the following terms and conditions that are a part of this IFB, and the resulting Construction Services Agreement. **If there are any exceptions to or deviations from the terms of the Contract Documents (Section 4), they must be stated in an attachment included with the bid.** Where Bidder wishes to propose alternatives to the OCFA's contractual requirements, these should be thoroughly explained. While exceptions will be considered, OCFA reserves the right to determine that an offer is non-responsive based upon any exceptions taken. OCFA's governing body reserves the right to deny any material exceptions to the contract. If no contractual exceptions are noted, Bidder will be deemed to have accepted the form of the contract requirements set forth in Section 4.
3. The Bidder hereby certifies that the individual signing the submittal is an authorized agent for the Bidder and has the OCFA to legally bind the Bidder to the Contract.
4. The undersigned has reviewed the work outlined in the documents and fully understands the scope of work required, understands the construction and project management function(s) as described, and that each contractor who is awarded a contract shall be in fact the prime contractor, not a subcontractor, to the OCFA, and agrees that its offer, if accepted by the OCFA, will be the basis for the contractor to enter into a contract with the OCFA.
5. The undersigned had notified the OCFA in writing any discrepancies or omission or of any doubt, questions, or ambiguities about the meaning of any of the IFB documents.
6. By submitting this Offer Form and signing below, the liquidated damages clause of the Agreement is hereby acknowledged.
7. It is understood that the OCFA reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of one hundred eighty (180) days.
8. Contractor expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the OCFA will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the contractor may be subject to criminal prosecution.
9. Labor Code Section 1735 requires that no discrimination be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status or sex of such persons, except as provided in Government Code Section 12940. Bidder certifies that it does not discriminate in its employment with regard to the factors set forth in Labor Code Section 1735; that it is in compliance with all federal, state and local directives and executive orders regarding non-discrimination in employment; and that it agrees to demonstrate positively and aggressively the principle of equal employment opportunity in employment.
10. The Bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager: (1) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency; (2) has not been suspended, debarred, voluntarily excluded or determined ineligible by

any Federal agency within the past 3 years; (3) does not have a proposed debarment pending; and (4) has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

**To the Orange County Fire Authority:**

Contractor hereby certifies to the OCFA that all representations, certifications, and statements made by the contractor, as set forth in this offer form, are true and correct and are made under penalty of perjury. The Undersigned hereby offers and shall furnish the services in compliance with all terms, scope of work, conditions, specifications, and amendments in the Request for Proposal which is incorporated by reference as fully set forth herein. The representations herein are made under penalty of perjury.

Intelligent Technologies and Services, Inc  
**LEGAL NAME OF CONTRACTOR:** dba Facilities Protection Systems

**SIGNATURE OF CONTRACTOR:** Thomas C. Garcia

**PRINTED NAME:** Thomas C. Garcia **TITLE:** Sales Manager

**CONTRACTOR ADDRESS:** 1150 W. Central Ave., #D

**CITY:** Brea **STATE:** CA **ZIP CODE:** 92821

**IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:**

**NAME OF CORPORATION:** Intelligent Technologies and Services, Inc.  
dba Facilities Protection Systems

**DATE OF INCORPORATION:** February 23, 1990

**PRESIDENT:** Jim Zaboski **TREASURER:** \_\_\_\_\_

**SECRETARY:** Jack Gerard **MANAGER:** \_\_\_\_\_

**SUBSCRIBED AND SWORN TO BEFORE ME**  
**THIS** \_\_\_\_\_ **DAY OF** \_\_\_\_\_ **20** \_\_\_\_\_

(Signature of Notary Public)

(Attach Jurat)

(SEAL)

**BY** Jack Gerard  
(Print Name)

(Signature)

**TITLE** ASSISTANT SECRETARY

(SEAL)

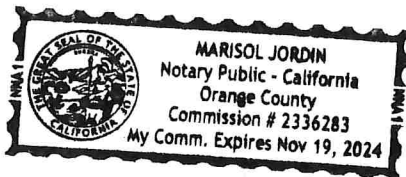
**CALIFORNIA JURAT**

**GOVERNMENT CODE § 8202**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of ORANGE



Subscribed and sworn to (or affirmed) before me on  
this 5 day of APRIL, 2022, by  
Date Month Year

(1) JACK GERARD

(and (2) \_\_\_\_\_),  
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to  
be the person(s) who appeared before me.

Signature \_\_\_\_\_  
Signature of Notary Public

Place Notary Seal and/or Stamp Above

**OPTIONAL**

*Completing this information can deter alteration of the document or  
fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**3D: NON-COLLUSION AFFIDAVIT**

STATE OF CALIFORNIA     )  
   ) SS  
 COUNTY OF                    )

In conformance with Public Contract Code Section 7106, the party making the foregoing bid declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that such bid is genuine and not collusive or sham; that said bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on 4.5.2022 [date], at BREA [city], CA [state]."

Signed \_\_\_\_\_

Jack Gerard, Assistant Secretary

Title

Subscribed and sworn to before me  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Signature of Notary Public

(SEAL)

**CALIFORNIA JURAT**

**GOVERNMENT CODE § 8202**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of ORANGE

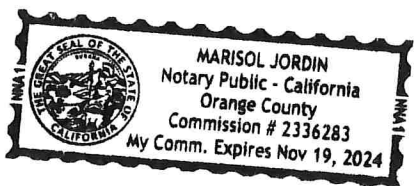
Subscribed and sworn to (or affirmed) before me on  
this 5 day of APRIL, 2022, by  
Date Month Year

(1) JACK GERARD

(and (2) \_\_\_\_\_),  
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to  
be the person(s) who appeared before me.

Signature \_\_\_\_\_  
Signature of Notary Public



Place Notary Seal and/or Stamp Above

**OPTIONAL**

*Completing this information can deter alteration of the document or  
fraudulent reattachment of this form to an unintended document.*

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Signer(s) Other Than Named Above: \_\_\_\_\_

**3E: CONTRACTOR'S LICENSING CERTIFICATION**

If the contractor is a sole proprietorship or another entity that does business under a fictitious name, the bid shall be in the real name of the respondent with a designation following showing "DBA (the fictitious name)," provided however, that no fictitious name shall be used unless there is a current registration with the Orange County Recorder. If the bid is submitted by a corporation, provide an additional attachment that states the names of the officers who can sign an agreement on behalf of the corporation and whether more than one officer must sign. If the bid is by a partnership or a joint venture, state the names and addresses of all general partners and joint venture parties.

The undersigned certifies that the contractor is licensed in accordance with the laws of the State of California to do the type of work required. Contractor further certifies that it is regularly engaged in the general class and type of work called for in this Request for Informal Bid. The successful contractor and subcontractors are required to hold the State of California Contractor's License(s) and DIR registration as required by SB854. Please complete and/or provide all requested information.

**CONTRACTOR'S****LICENSE NO:** 592289 **CLASS:** C10 C16 **EXPIRATION:** 4-30-2022**CA DIR REGISTRATION NUMBER:** 1000005555 **EXPIRATION:** 6-30-2022**CONTRACTOR TELEPHONE:** (714) 257-2244 **CONTRACTOR FAX:** (714) 257-2240**BUSINESS ADDRESS:** 1150 W. Central Ave., #D, Brea, CA 92821**LENGTH OF TIME IN BUSINESS:** 32 years**LENGTH OF TIME AT CURRENT LOCATION:** 20 years**NUMBER OF EMPLOYEES:** 55 **NUMBER OF CURRENT CLIENTS:** 2,800

---

*If the contractor operates as a sole proprietorship:***NAME OF INDIVIDUAL CONTRACTOR:** N/A**SIGNATURE OF OWNER:** N/A**BUSINESS ADDRESS:** N/A

---

*If the contractor operates under a partnership:***NAME OF FIRM:** N/A**PARTNER NAME:** N/A **PARTNER TITLE:** N/A**PARTNER ADDRESS:** N/A**SIGNATURE OF PARTNER:** N/A**PARTNER NAME:** N/A **PARTNER TITLE:** N/A**PARTNER ADDRESS:** N/A**SIGNATURE OF PARTNER:** N/A

If contractor operates under a corporation:

Intelligent Technologies and Services, Inc.

NAME OF CORPORATION: dba Facilities Protection Systems

CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF CALIFORNIA:

James B. Zaboski SIGNATURE OF CORPORATION PRESIDENT

Jack Gerard

SIGNATURE OF THE CORPORATION SECRETARY

DATE 4/4/2022

Management person responsible for direct contact with OCFA:

NAME: Thomas C. Garcia TITLE: Sales Manager

TELEPHONE: (714) 936-3310 E-MAIL: tgarcia@fpsys.com

Person responsible for the day-to-day servicing of the account/project.

NAME: Thomas C. Garcia TITLE: Sales Manager

TELEPHONE: (714) 936-3310 E-MAIL: tgarcia@fpsys.com

SUBSCRIBED AND SWORN TO BEFORE ME  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ '20

(Signature of Notary Public)

(Attach Jurat)

(SEAL)

BY

Jack Gerard

(Print Name)

(Signature)

TITLE

ASSISTANT SECRETARY

(SEAL)

**CALIFORNIA JURAT**

**GOVERNMENT CODE § 8202**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of ORANGE

Subscribed and sworn to (or affirmed) before me on  
this 5 day of APRIL, 2022, by  
Date Month Year

(1) JACK GERARD

(and (2) \_\_\_\_\_),  
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to  
be the person(s) who appeared before me.

Signature [Signature]  
Signature of Notary Public



Place Notary Seal and/or Stamp Above

**OPTIONAL**

*Completing this information can deter alteration of the document or  
fraudulent reattachment of this form to an unintended document.*

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Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**3F: PROPOSED SUBCONTRACTORS**

Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., Bidder must clearly set forth the name and location of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the work in an amount in excess of one-half of one percent (0.5%) of bidder's total bid and the kind of work that each will perform. This is to include any subcontractor that will specially fabricate and install a portion of work according to detailed drawings contained in the plans and specifications in the amount greater than one half of one percent (.05%) of the Contractor's total bid.

Furthermore, Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., if bidder fails to list as to any portion of work, or if bidder lists more than one subcontractor to perform the same portion of work (i.e. bidder must indicate what portion of the work each subcontractor will perform), bidder must perform that portion itself or be subjected to penalty under applicable law. If alternate bids are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the base bid, Bidder must list subcontractors that will perform work in an amount in excess of one half of one percent (0.5%) of bidder's total bid, including alternates.

In case more than one subcontractor is named for the same kind of work, the Contractor is to state the portion of work that each subcontractor will perform. Bidders or suppliers of materials only do not need to be listed. If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

<b>Subcontractor Name</b>				
Address	N/A			
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				
<b>Subcontractor Name</b>				
Address	N/A			
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				
<b>Subcontractor Name</b>				
Address	N/A			
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				
<b>Subcontractor Name</b>				
Address	N/A			
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				
<b>Subcontractor Name</b>				
Address	N/A			
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				

**3G: DESIGNATION OF SURETIES**

The following are the names, addresses and phone numbers for all brokers and sureties from whom Bidder intends to procure insurance and bonds.

<b>Name</b>	Lockton Companies
Address	444 W. 47th Street, Suite 900, Kansas City, MO 64112
Phone No.	(816) 960-9000
<b>Name</b>	Western Surety
Address	444W. 47th Street, Suite 900, Kansas City, MO 64112
Phone No.	(816) 960-9188
<b>Name</b>	
Address	
Phone No.	
<b>Name</b>	
Address	
Phone No.	

**3H: BIDDER'S CERTIFICATION OF COMPLIANCE WITH  
INSURANCE REQUIREMENTS FOR PUBLIC WORKS CONSTRUCTION**

BIDDER agrees, acknowledges and is fully aware of the insurance requirements as specified in the INSTRUCTIONS TO BIDDERS FOR RO2537 - CLEAN AGENT FIRE SUPPRESSION SYSTEM - RFOTC AND IN THE SPECIAL PROVISIONS FOR RO2537 - CLEAN AGENT FIRE SUPPRESSION SYSTEM - RFOTC and accepts all conditions and requirements contained therein.

BIDDER acknowledges that ACORD forms will not be accepted when policy forms or endorsements are required.

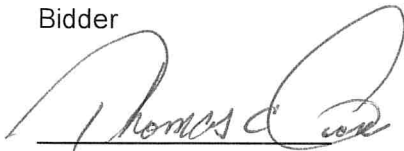
BIDDER acknowledges that some insurance companies may be unwilling to issue all of the policy coverage and endorsements required in the conditions and requirements. It is BIDDER's responsibility to ensure that it will be able to provide evidence of all required types and amounts of insurance and all policy endorsements required hereunder.

BIDDER represents and warrants that, prior to signing below, BIDDER has confirmed with BIDDER's insurer(s) or insurance broker(s) that all required evidence of the types and amounts of insurance, and all required endorsements of insurance coverage, will be timely provided to OCFA in accordance with the conditions and requirements. Failure to provide all required evidence of insurance and endorsements when required will constitute a material breach of the agreement.

Intelligent Technologies and Services, Inc.  
dba Facilities Protection Systems

---

Bidder



By Thomas C. Garcia

4-5-2022

Date

**3I: CERTIFICATION OF SITE EXAMINATION**

By signing below, Bidder certifies each of the following:

1. Bidder is fully informed of the conditions relating to the construction of the work and the employment of labor thereon
2. The specifications for the work show conditions as they are believed to exist. The conditions shown do not constitute a representation or warranty express or implied by the OCFA, its officers or agents that such conditions actually exist.
3. Bidder has thoroughly examined the site for the work described herein and attended the mandatory pre-bid inspection of the building(s) and site(s), conducted by the OCFA. Failure to attend the mandatory pre-bid inspection shall be cause for rejection of the bid.
4. Bidder has observed the designated Contractor work areas, material equipment storage areas, access routes, as well as the ability to protect existing surface and subsurface improvements. No claim for allowance of time or money will be allowed for such matters.
5. Bidder is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the work to be performed.
6. Bidder acknowledges that there are certain peculiar and inherent conditions existent in the construction of the work that may create, during the work, unusual or peculiar unsafe conditions hazardous to persons and property and expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the work with respect to such hazards.

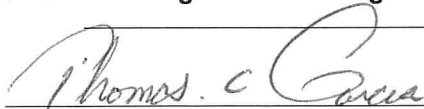
**To the Orange County Fire Authority:**

I certify that I have examined the site and the bid is complete and there will be no requests for additional payment for failure to examine the site thoroughly.

**Date of Site Examination:** **March 21, 2022**

**Company Name:** **Intelligent Technologies and Services, Inc. dba Facilities Protection Systems**

**Signature:**



**Printed Name / Title of Company Representative:** **Thomas C. Garcia, Sales Manager**

**Date:**

4-5-2022

**3J: BID SHEETS**

**Cost Analysis:** The bid information is relevant to a determination of whether the pricing offered is fair and reasonable in light of the Scope of Services to be provided. **Failure to submit the information in the format requested may result in the bid being deemed non-responsive.**

**Instructions:** - Input your information in the blank cells as follows:

- Insert a description for each Line
- Insert the lump sum subtotal for each category
- Add all categories to arrive at the Project Grand Total

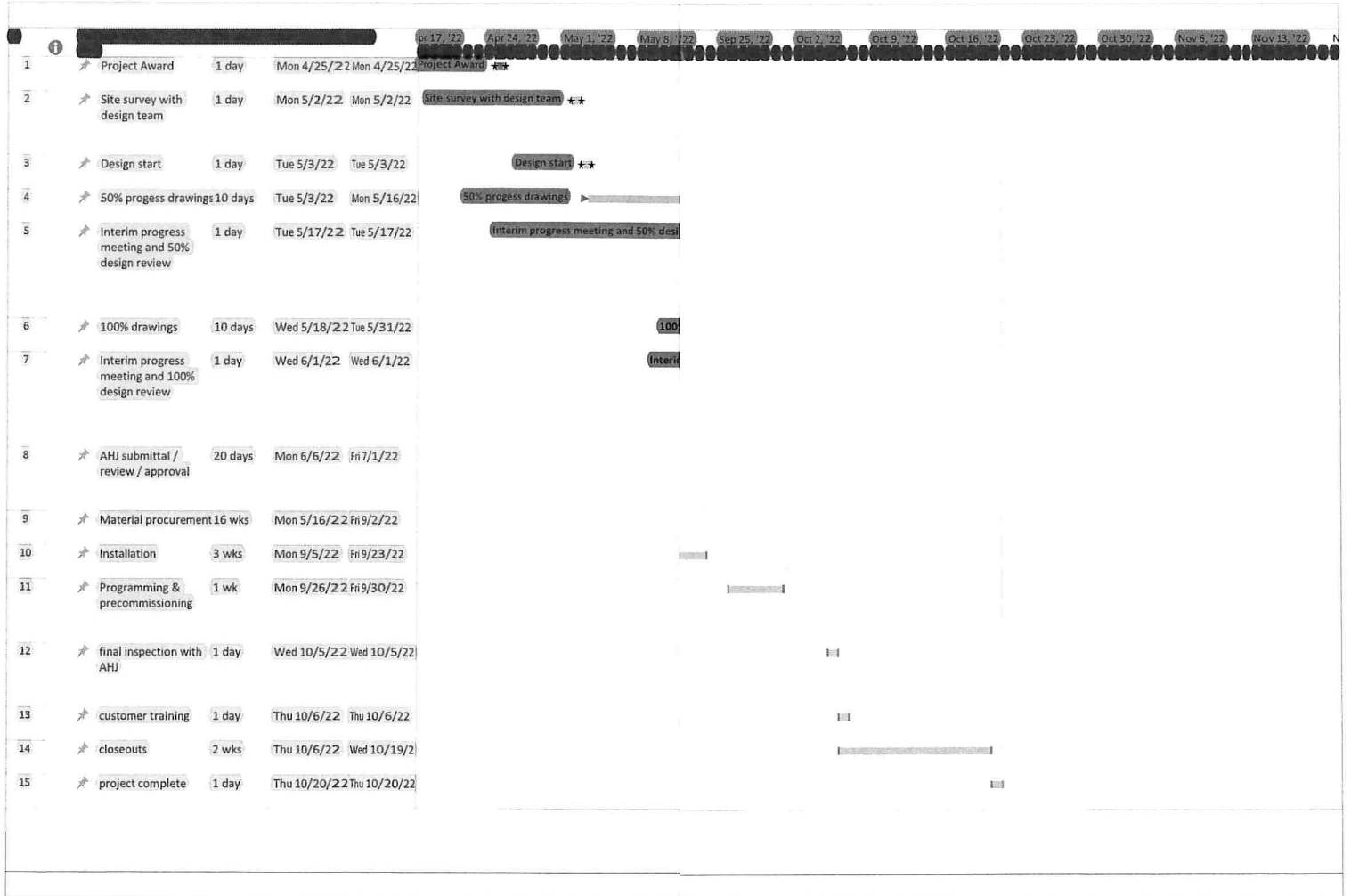
CATEGORY I: Labor		
Line	Description	
1	Installation Labor (Mechanical Supp. Piping & Low Voltage & Electrical) Project Management	
<b>SUBTOTAL LABOR:</b>		\$52,919.00
CATEGORY II: Permanent & Non-Permanent Materials/Supplies		
Line	Description	
2	Equipment, Conduit, Wire, Piping, Misc. Fitting, Tools & Misc.	
<b>SUBTOTAL MATERIALS:</b>		\$72,023.00
CATEGORY III: EQUIPMENT		
Line	Description	
3	Viking Material (Tanks, Smoke Det., Modules & Panel)   VESDA Det., Piping & Fittings	
<b>SUBTOTAL EQUIPMENT:</b>		\$143,353.00
CATEGORY IV: OVERHEAD & INDIRECT COSTS		
Line	Description	
4	Design Labor & Off-Site Admin Labor	
<b>SUBTOTAL OVERHEAD:</b>		\$8,220.00
<b>PROJECT SUBTOTAL</b>		
CATEGORY V: PROFIT		
Line	Description	% Profit
5	Provide the percentage of the project subtotal (above) that will be assessed as profit:	15%
<b>SUBTOTAL PROFIT (IN DOLLARS)</b>		\$41,738.00
CATEGORY VI: PERMITS/FEES		
Line	Description	Estimated Permits/Fees
6	Provide an estimate of the permits and fees for the project. These fees will be reimbursed at actual cost or may be paid directly to the regulating agency by OCFA.	\$2,000.00
<b>SUBTOTAL PERMITS/FEES</b>		\$2,000.00
<b>PROJECT GRAND TOTAL</b>		\$319,992.00

**3K: PROJECT APPROACH AND TIMELINE**

**Failure to provide the information requested below may result in the bid being deemed non-responsive:**

1. Submit a Rough Construction Schedule. This will be the basis for the approved Construction Schedule.
2. Submit a Rough Schedule of Values, including mobilization and field office costs, in a format consistent with AIA Document G703 – 1992. This will be the basis for the approved Schedule of Values.
3. Submit a narrative explanation of the proposed Construction Schedule and Schedule of Values. The narrative should include project phases and major project milestones.

*SEE ATTACHED*



**3L: LIST OF PROJECT REFERENCES**

The Bidder must demonstrate knowledge of public construction techniques and must possess a working ability to perform a similar scope of construction work for other public agencies. The information provided below may be used to determine whether the bid is submitted by a "responsible bidder" for purposes of the Public Contract Code, as stated in this IFB document. The OCFA expressly reserves the right to reject the bid of any bidder who has failed to complete three (3) similar projects of substantially the same type of work in a timely or satisfactory manner. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Submit the following information for three public agencies for which the Bidder has performed similar work within the past three (3) years:

- a) Agency Name
- b) Address
- c) Contact Name and Title
- d) Telephone Number
- e) Email Address
- f) Project Name
- g) Project Value
- h) Description of Scope of Work

2. References will be asked the following information:

- a) Did the Contractor perform the work as agreed?
- b) Did the Contractor perform the work within the allocated time frame?
- c) Were you satisfied with the Contractor's performance?
- d) Would you recommend the Contractor for a future contract?
- e) Did you have easy accessibility to the Contractor?

SEE ATTACHED.



# ORANGE COUNTY FIRE AUTHORITY

## IFPWB RO2537 – Addendum 1

### Clean Agent Fire Suppression System

January 13, 2022

Thank you to all that attended the mandatory job walk meeting. As a result of questions received, this addendum is issued to provide additional information, attendance sheet, and reference materials as requested.

#### **Answers to questions during the job-walk and Q&A period:**

- 1) **QUESTION:** Will today's meeting attendance be made available?  
**RESPONSE:** *The attendance record is an attachment to this addendum.*
- 2) **QUESTION:** Will the interface to the Emergency Power Off (EPO) button be required? If so, are there as-builts of the EPO system available?  
**RESPONSE:** *Yes, the as-builts are attached as part of this addendum.*
- 3) **QUESTION:** Will Room B121 and Room B120 be designed as two independent fire suppression zones?  
**RESPONSE:** *Yes*
- 4) **QUESTION:** During the job walk it was mentioned by Joel Brodowskji that room integrity tests were conducted in both room B121 and B120. Please provide a copy of the room integrity tests for review of the rom integrity.  
**RESPONSE:** *Door fan test results are attached as part of this addendum.*
- 5) **QUESTION:** Is the interface from the building fire alarm panel to the new fire suppression panel part of this scope of work? Note 1 on FS201 excludes this scope of work from the project.  
**RESPONSE:** *Yes*
- 6) **QUESTION:** Can the manufacturer of the fire suppression system be other that the Viking Corporation equipment specified under Specification Section 212200, V(A)(1), such as Kidde or Ansul?  
**RESPONSE:** *Yes, it may be the equivalent of the Viking Corporation equipment as specified. OCFA reserves the right to determine whether an alternative item offered is equivalent to the item as specified and meets department needs.*
- 7) **QUESTION:** Does OCFA accept Ansul Fire Products (by JCI) as an alternate manufacture to comply with Specification Section to provide (1) manufacture? Viking & Potter Panels are (2) manufactures.  
**RESPONSE:** *Yes, it may be the equivalent of the equipment as specified. OCFA reserves the right to determine whether an alternative item offered is equivalent to the item as specified and meets department needs.*

**IMPORTANT:** If you have submitted a quote before this addendum was issued, your quote will be invalidated. After you have reviewed the addendum, you must resubmit your quote acknowledging receipt of this addendum through PlanetBids.

Thank you for your interest in doing business with OCFA.

If you have any questions, please contact Rothchild Ong, Assistant Purchasing Agent, at (714) 573-6642 or via e-mail at: [rothchildong@ocfa.org](mailto:rothchildong@ocfa.org).

**Rothchild Ong** | Assistant Purchasing Agent  
[rothchildong@ocfa.org](mailto:rothchildong@ocfa.org) | (714) 573-6642

**ROOM INTEGRITY ASSESSMENT  
(THIRD ASSESSMENT)  
COMPUTER EQUIPMENT SUITE  
ORANGE COUNTY FIRE AUTHORITY  
1 FIRE AUTHORITY DRIVE  
IRVINE, CA 92602**

Specialists In Fire Systems

**INTRODUCTION**

The Orange County Fire Authority (OCFA) I.T. Department is in the process of evaluating options for fire protection in their Computer Equipment Suite located at 1 Fire Authority Drive, Irvine, CA 92602. Facilities Protection Systems (FPS) was contracted to perform a room integrity (doorfan) assessment of the Computer Equipment Suite to determine the feasibility of installing a clean agent fire suppression system.

An initial assessment was performed on December 10, 2019. The initial testing yielded passing results for the Computer Equipment Suite as a single clean agent zone, quantifiable but failing results for the Data Center as a separate zone, and no quantifiable results in the Radio Room due to the large unsealed opening between the Radio Room and the office area. Based on these results, OCFA contracted with the property management company to perform sealing repairs of the Computer Equipment Suite. OCFA then contracted with FPS to perform a second assessment to determine the effectiveness of those repairs.

The second assessment was performed on September 8, 2020. There was a minor improvement in the Computer Equipment Suite as a single zone where the hold time had risen from 11.2 minutes to 12.6 minutes. The effectiveness of room sealing was seen when the Data Center was tested as a separate zone. During initial testing, the room failed with a hold time of 5.7 minutes. After repairs, the Data Center achieved a passing hold time of 11.2 minutes. Testing in the Radio Room yielded no quantifiable results, again due to the large unsealed opening.

OCFA again contracted with property management to perform room sealing repairs on areas of leakage identified during the second round of testing. This third assessment is to determine the effectiveness of those repairs.

**GENERAL**

The third assessment was performed on February 9, 2021. Upon arrival, I.T. personnel conducted a tour a space to point out room sealing repairs that had been conducted. This included sealing of the opening in the wall separating the Radio Room from the office area. Also sealed was the underfloor opening under the doorway separating the Data Center and Radio Room. The repair to this underfloor opening completes the physical separation of the two rooms and would allow them to be zoned separately.

As with the two previous assessments, the doorfan equipment was setup in the single man door located in the southwest corner of the Data Center. CRAC units were turned off and house air registers were masked over. No other temporary sealing was performed. The required protected height was set at 9'0". This is the height of the cable trays above the depressed slab. The required retention time is set at ten minutes, the industry accepted standard. As before, the first test was for the Computer Equipment Suite as a single zone. This was followed by a test of the Data Center as a separate zone and concluded with a test of the Radio Room as a separate zone.

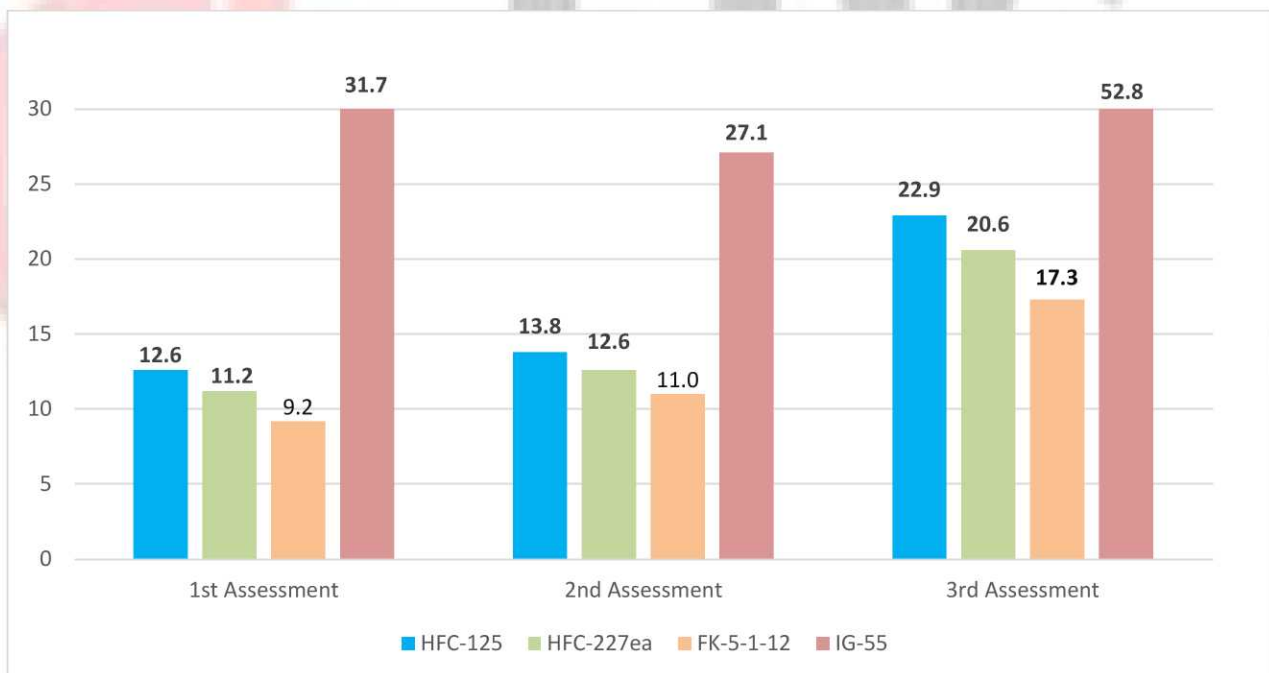
## **FINDINGS – COMPUTER EQUIPMENT SUITE**

The additional room sealing repairs yielded significant improvements of the retention times for the Computer Equipment Suite as a single zone. Table A below provides a summary of the retention times and if pressure venting is required.

AGENT SPECIFICS			VENTING REQUIRED?	
AGENT	RETENTION	PASS / FAIL	POSITIVE	NEGATIVE
ECARO-25 (HFC-125)	22.9 mins.	Pass	No	No
FM200 (HFC-227ea)	20.6 mins.	Pass	No	No
NOVEC 1230 (FK-5-1-12)	17.3 mins.	Pass	No	Yes
PROINERT (IG-55)	52.8 mins.	Pass	Yes	No

**(TABLE A – THIRD ASSESSMENT RETENTION TIMES, COMPUTER EQUIPMENT SUITE)**

Figure 1 below illustrates the improvement of retention times, in the Computer Equipment Suite, as repairs were performed.



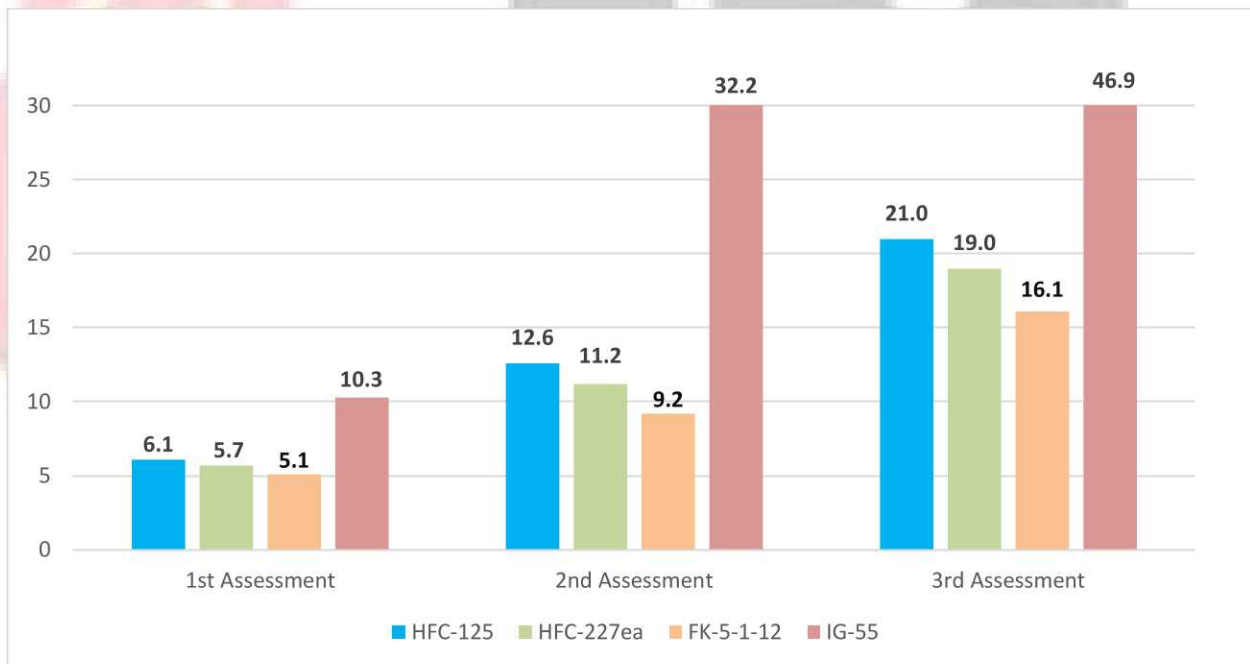
*Figure 1-Computer Equipment Suite Retention Times (in minutes)*

### **FINDINGS – DATA CENTER AS A SEPARATE ZONE**

The additional room sealing repairs again yielded significant improvements to the retention times for the Data Center as a separate zone. Table B shows the retention times for the various extinguishing agents and Figure 2 illustrates the retention time improvement, an average 65% increase across the board.

AGENT SPECIFICS			VENTING REQUIRED?	
AGENT	RETENTION	PASS / FAIL	POSITIVE	NEGATIVE
ECARO-25 (HFC-125)	21.0 mins.	Pass	No	No
FM200 (HFC-227ea)	19.0 mins.	Pass	No	No
NOVEC 1230 (FK-5-1-12)	16.1 mins.	Pass	No	Yes
PROINERT (IG-55)	46.9 mins.	Pass	Yes	No

**(TABLE B – THIRD ASSESSMENT RETENTION TIMES, DATA CENTER AS A SEPARATE ZONE)**



*Figure 2-Data Center Only Retention Times (in minutes)*

### **FINDINGS – RADIO ROOM AS A SEPARATE ZONE**

Sealing of the opening in the southwest corner of the Radio Room allowed achievement of quantifiable results. Two of the agents, HFC-125 and IG-55, have passing results at the 9'0" elevation, which is the elevation of the cable tray. Refer to Table C and Figure 3 below.

If the required protected height is lowered to 8'0" (the top of equipment above depressed slab), HFC-227ea also yields a passing result.

AGENT SPECIFICS			VENTING REQUIRED?	
AGENT	RETENTION	PASS / FAIL	POSITIVE	NEGATIVE
ECARO-25 (HFC-125)	10.4 mins.	Pass	No	No
FM200 (HFC-227ea)	9.3 mins.	Fail	No	No
NOVEC 1230 (FK-5-1-12)	7.8 mins.	Fail	No	No
PROINERT (IG-55)	25.0 mins.	Pass	Yes	No

(TABLE C – THIRD ASSESSMENT RETENTION TIMES, RADIO ROOM AS A SEPARATE ZONE)

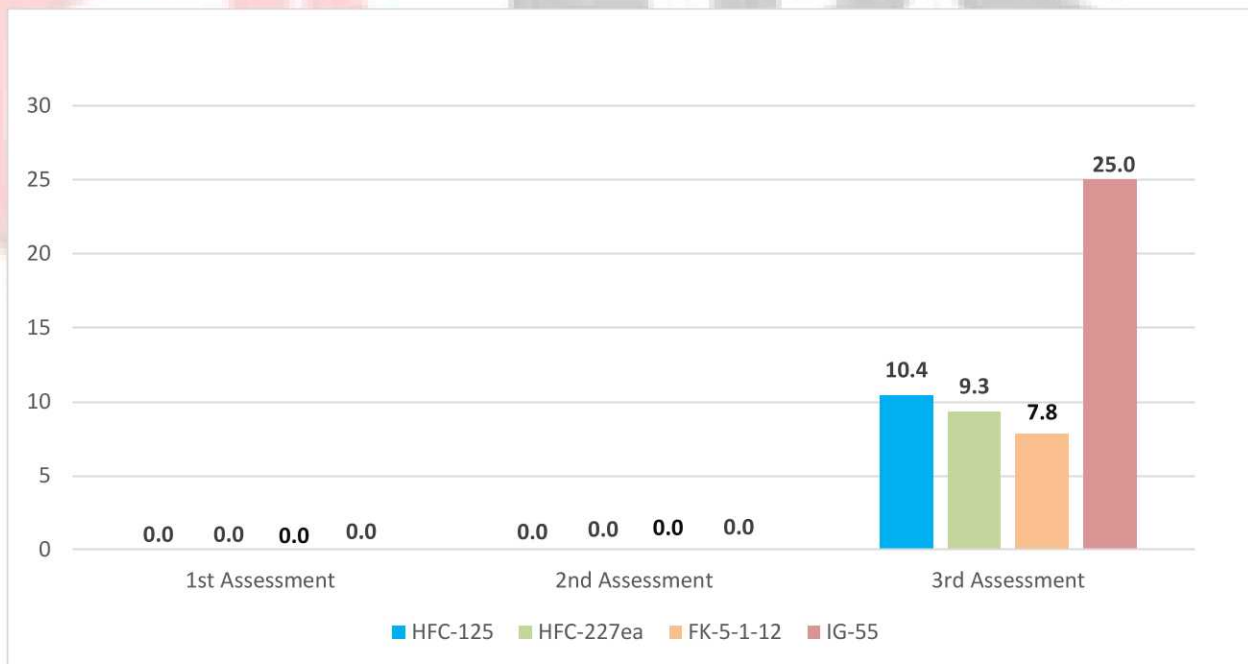
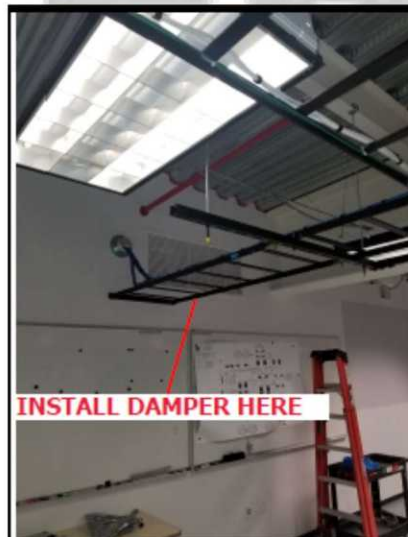
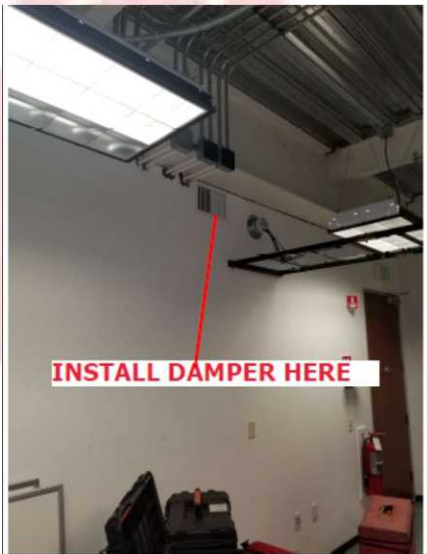
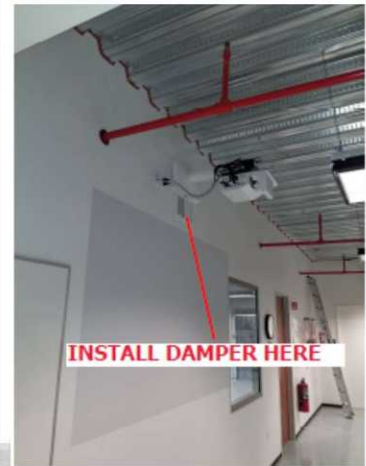
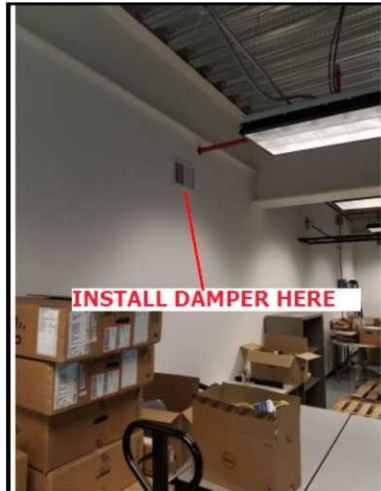


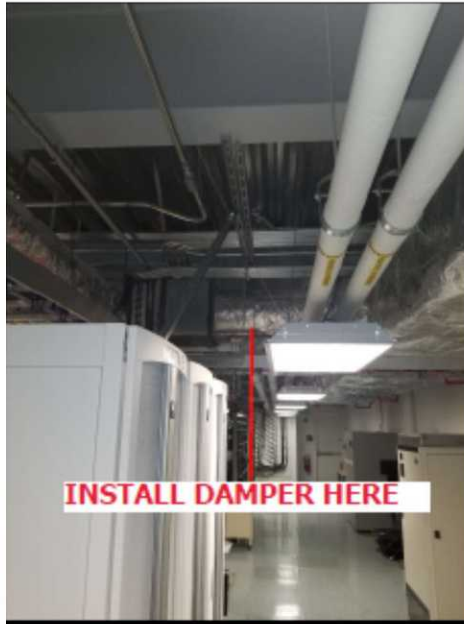
Figure 3-Radio Room Only Retention Times (in minutes)

**REQUIREMENTS**

- 1) Install motorized smoke fire dampers at all house air outlets in the Data Center.



- 2) Install motorized smoke fire dampers adjacent to the return air grille and the VAV in the Radio Room



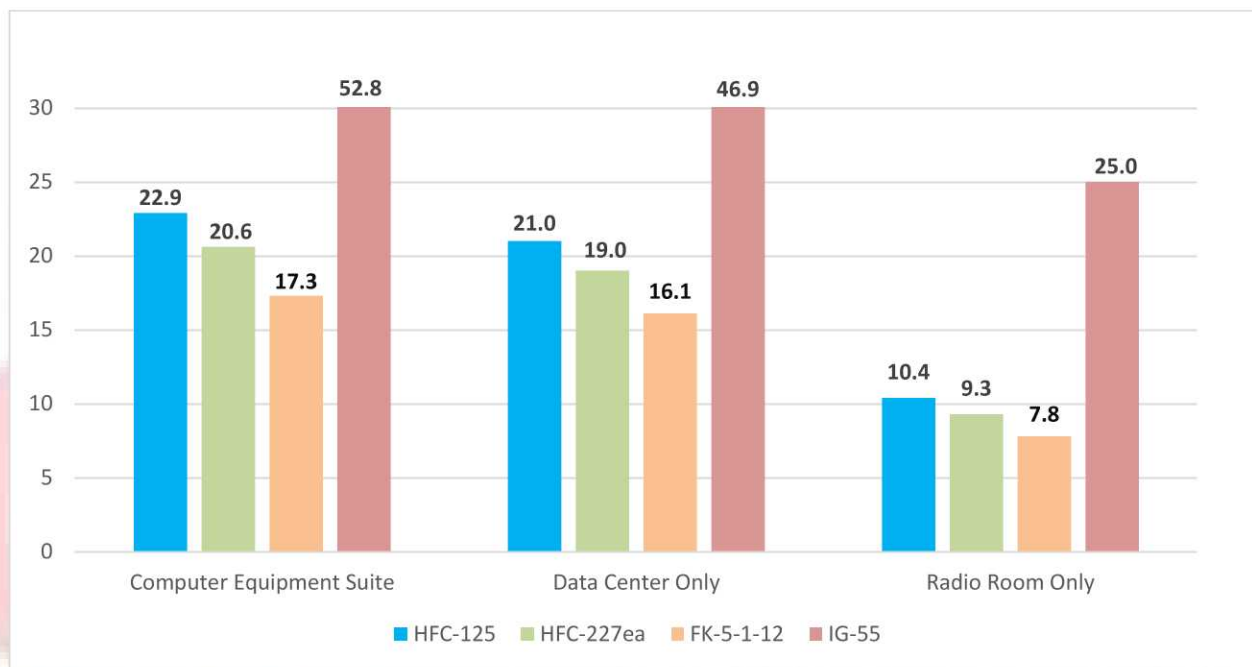
- 3) Install bottom seals on all doors in the perimeter of the Computer Equipment Suite. (PEMKO bottom seals are recommended)
- 4) Install door seal kit (astragal, bottom seal, and smoke seals) on north double doors in the Radio Room. (PEMKO door seal kits are recommended)

### **RECOMMENDATIONS**

- 1) In northeast corner of Radio Room, seal antenna cable penetration.
- 2) East side of Radio Room, seal top of wall.
- 3) Seal mechanical shaft penetrations in Radio Equipment Room
- 4) Perform fire protection assessment of critical rooms which affect the Computer Equipment Suite (e.g. electrical and UPS rooms).

## **CONCLUSIONS**

The Computer Equipment Suite, as a single zone, has been suitable for clean agent protection since the first assessment. The suitability of the Suite has improved as room sealing repairs have been performed. The room sealing repairs performed thus far now allow the Suite to be divided into two separate zones (Data Center and Radio Room) if so desired. Figure 4 below illustrates the retention times for the various agents in the various zoning configurations.



*Figure 4- Retention Times for different zone configurations (in minutes)*

Throughout the assessment process, HFC-125 (ECARO-25) has consistently provided the best balance between retention times (passing results in all configurations as of third assessment), required pressure venting (none required), and floor space required for agent storage containers (3-4 agent storage containers requiring ~27-36 ft<sup>2</sup>). Additionally, the low number of required agent storage containers results in lower preventative maintenance costs.

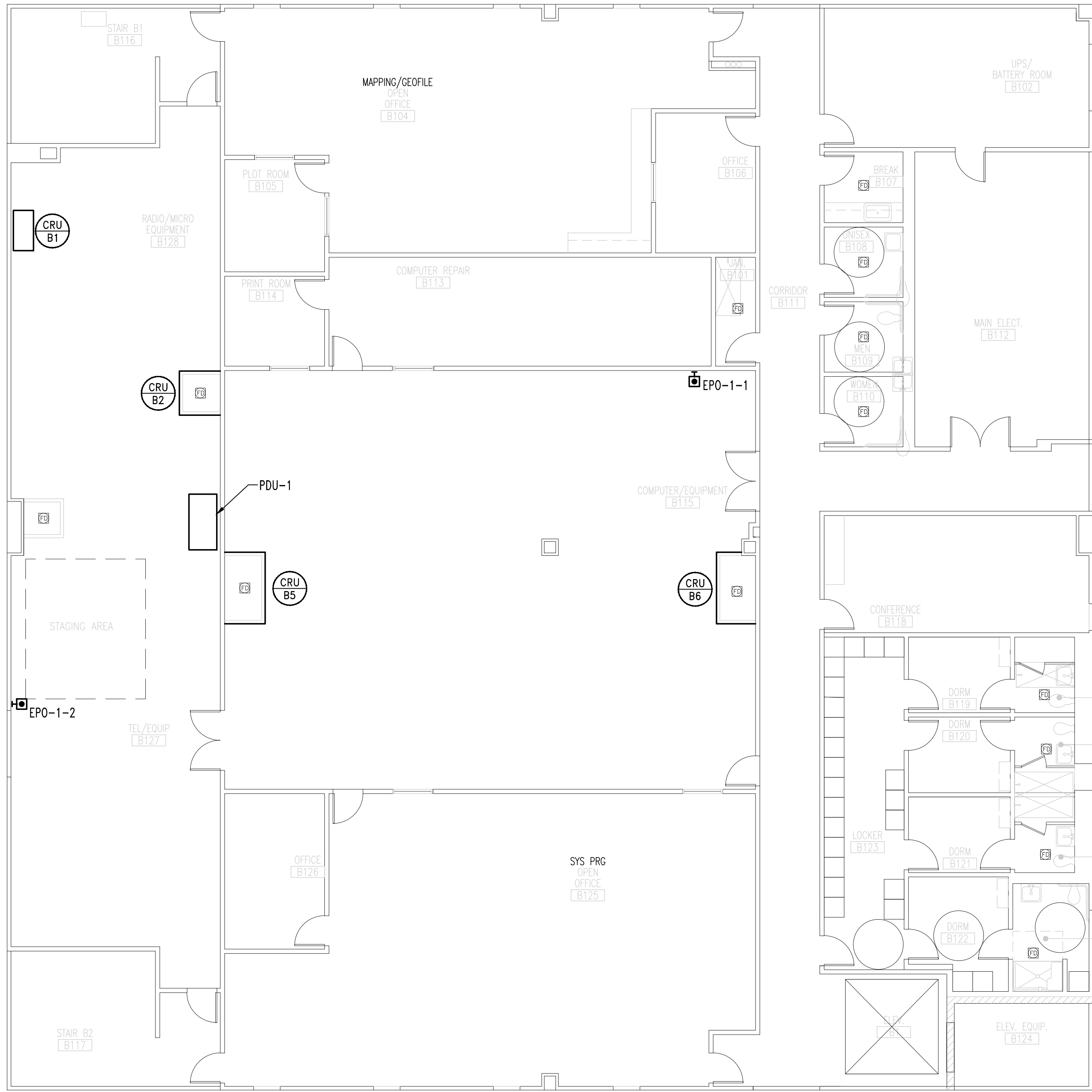
As an alternative, HFC-227ea (FM200) would be the next best choice to HFC-125 (ECARO 25) as it offers a similar balance between required floor space (same as HFC-125), pressure venting (none required), retention times (similar to but less than HFC-125), and maintenance costs. An FK-5-1-12 (NOVEC 1230) system would have a footprint similar to both HFC-125 and HFC-227ea but retention times are less and pressure venting would be required.

When considering retention times only, IG-55 (PROINERT) provides the best results as seen in Figure 4 above. However, the amount of IG-55 required would need approximately thirty-two (32) agent storage containers requiring a minimum 57 ft<sup>2</sup> of floor space. The room integrity test software predicts that ~2,100 in<sup>2</sup> of positive pressure venting would be required if an IG-55 system were installed. Maintenance costs would be higher as well as an IG-55 system (or any inert gas system) has a flexible discharge hose at each cylinder which must be hydrostatically tested or replaced every five years.

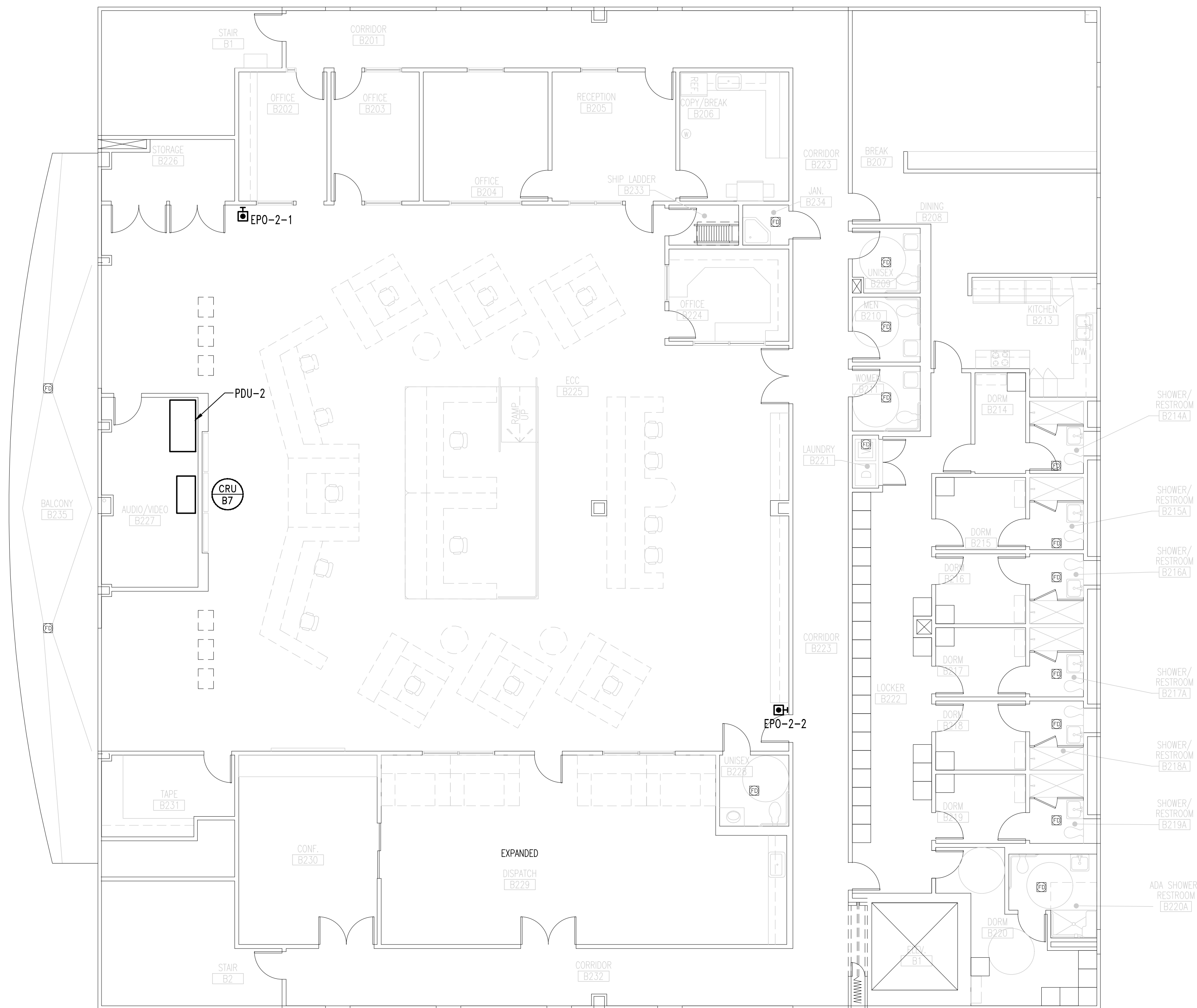
### **ATTACHMENTS**

1. Doorfan testing summaries.
2. Data sheets, clean agent cylinders and extinguishants

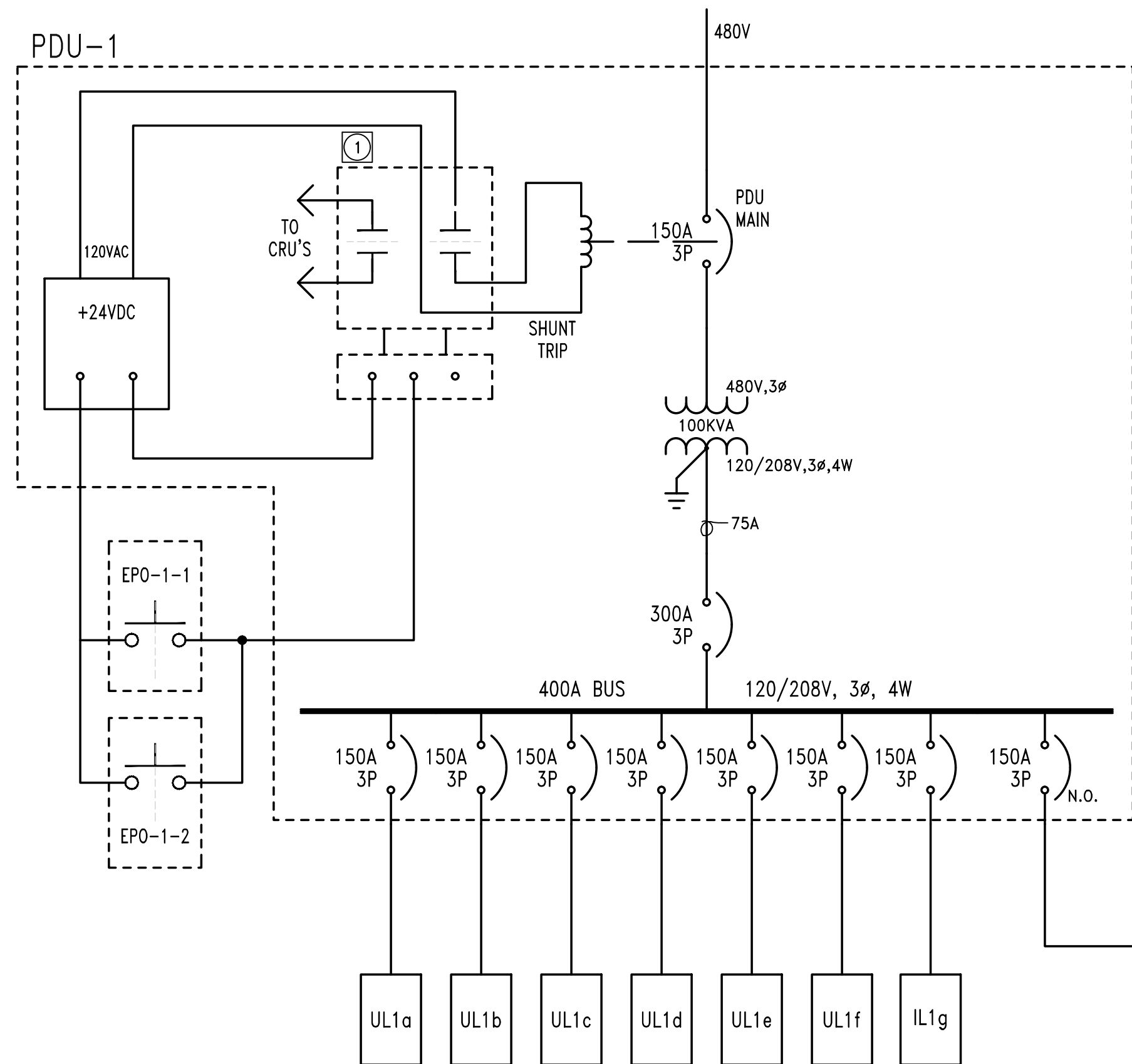
X:\OCA\2019019-Bldg-EPO\1-0-BldgPlans-012020.dwg, Bldg-FIT And2, 1/4/2020 3:13:33 PM, 1:1, MullenAndAssociates, Inc.



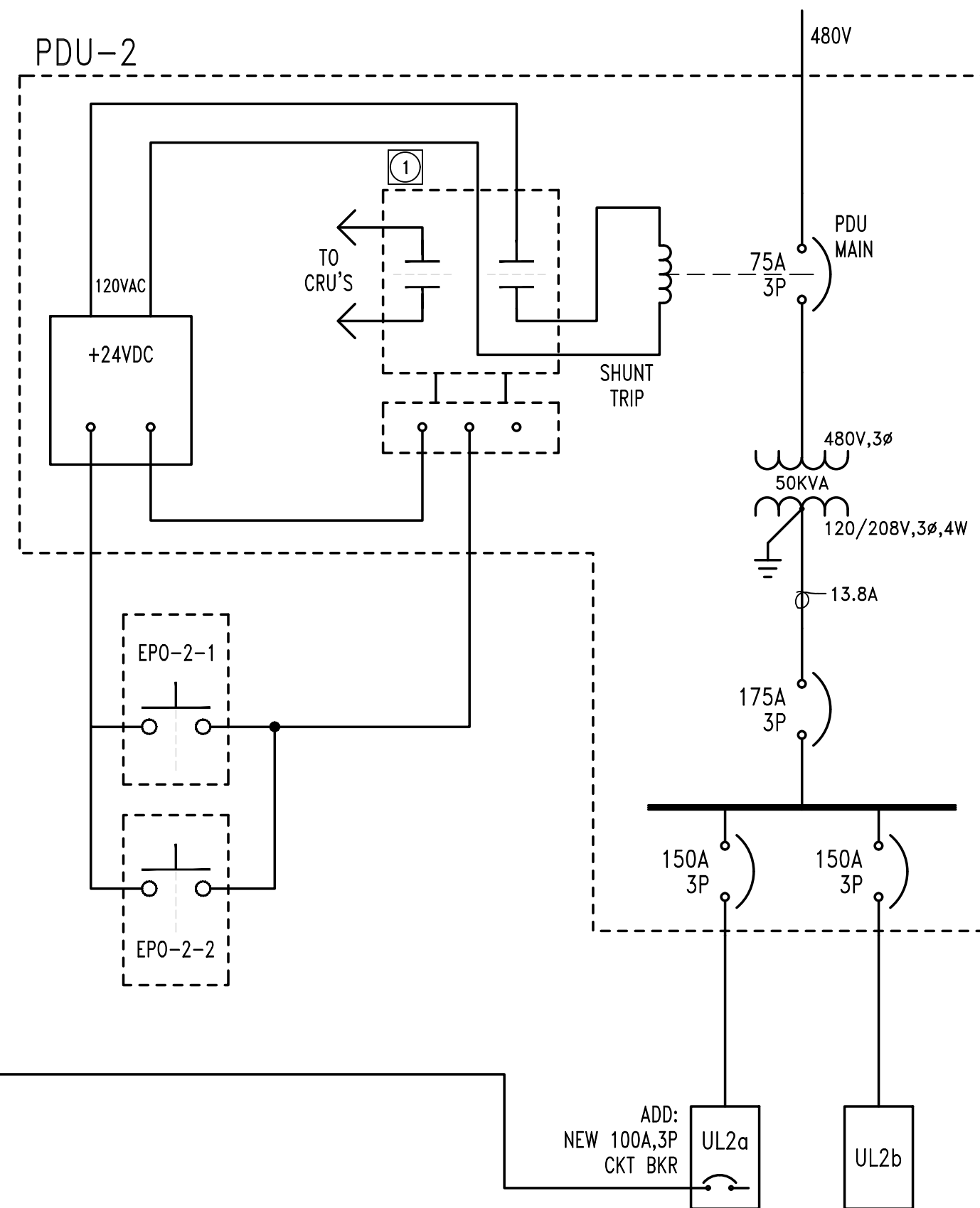
**A** BUILDING B - FIRST FLOOR  
SCALE: 1/8"=1'-0"



**B** BUILDING B - SECOND FLOOR  
SCALE: 1/8"=1'-0"



**1** PDU-1, EPO CONTROL DIAGRAM  
NO SCALE  
1 CONTRACTOR WIRING BOARD



**2** PDU-2, EPO CONTROL DIAGRAM  
NO SCALE  
1 CONTRACTOR WIRING BOARD

**MULLEN & ASSOCIATES, INC.**  
ELECTRICAL ENGINEERS  
Project Number 2019019  
1800 N. Jefferson St., Unit D Anaheim, Cal. 92807 (714)852-4800

REGISTERED PROFESSIONAL ENGINEER  
LARRY D. MULLEN  
ELECTRICAL  
Exp. 8/30/20  
STATE OF CALIFORNIA

Revisions	Sym.	Descrip.	Date	By

**Emergency Electrical Power Distribution Bldg B**  
for Regional Fire Operations and Training Center  
OC Fire Authority 1 Fire Authority Road  
Irvine, California 92602  
Phone: 714-573-6475

Sheet Title ELECTRICAL BLDG. PLANS & CONTROL DIAGRAMS  
Project Emergency Electrical Power Distribution Bldg B  
RFP Number  
1 Fire Authority Road  
Irvine, California 92602

Drawn CLD  
Chkd LDM  
Date 12/28/2019

Sheet  
E2  
of x





**FPS**  
Specialists in Fire Systems

OCFA

Solicitation No: RO2537A

### 3 Similar Projects

#### 1.

- 1) Los Angeles County Sheriff's Department (C-3138)
- 2) 1277 N. Eastern Ave., Los Angeles, CA 90063
- 3) Brandon Wong, Purchasing
- 4) 323-267-2276
- 5) [BWong@isd.lacounty.gov](mailto:BWong@isd.lacounty.gov)
- 6) Sheriff's Communication Center
- 7) \$263,403.00
- 8) Clean Agent Fire Suppression System and early warning detection (VESDA)

#### 2.

- 1) Orange County Sheriff's Department (C-3020)
- 2) 2644 E. Santiago Canyon Rd., Silverado, CA 92868
- 3) Kenneth McManaway, Construction Manager
- 4) 951-313-7118
- 5) [kenneth.m@dalkeandsons.com](mailto:kenneth.m@dalkeandsons.com)
- 6) OCSD at Loma Ridge
- 7) \$124,876.00
- 8) Clean Agent Fire Suppression System, Early warning (VESDA), Preaction and Fire Alarm

#### 3.

- 1) Los Angeles County Sheriff's Department (C-2679)
- 2) 1 Cupania Circle, Monterey Park, CA 91755
- 3) Marnica Valencia, Purchasing
- 4) 323-276-2288
- 5) [MValencia@isd.lacounty.gov](mailto:MValencia@isd.lacounty.gov)
- 6) LA County Sheriff's TI
- 7) \$156,200.00
- 8) Clean Agent Fire Suppression Systems

**3M: QUALIFICATIONS QUESTIONNAIRE**

The information and documents provided below may be used to determine the responsibility of Bidder's submittal, as stated in Section 33 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Provide the names, titles, addresses, and phone numbers of all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest in this proposal: *NONE*
2. Provide the dates of any voluntary or involuntary bankruptcy judgments against any principal having an interest in this proposal. *NONE*
3. Provide all current and prior DBA's, aliases, and fictitious business names for any principal having an interest in this proposal. *NONE*
4. For each violation of labor law determined by any Federal, State or local agency to have been committed by the Bidder or any principal having an interest in this proposal, identify any measures that have been imposed by, or agreed upon with, the Federal, State or local agency as punishment for past violations or to prevent future violations.
5. State the title and date, and attach a copy of, each written threat, bid depository, claim, lawsuit, discipline or other written action by the Contractor State License Board against the Bidder or any principal having an interest in this proposal. *NONE*
6. Identify the following information about each claim asserted against the Bidder or any principal having an interest in this proposal relating to industrial safety within the past eight (8) years: name of the agency/entity asserting the claim; the date of the claim; the date of the alleged violation giving rise to the claim; the claim number, if any. Attach a copy of the claim. *NONE*
7. Has the Bidder or any principal having an interest in this proposal been disqualified from bidding on, or from finishing, any other public works project in the past 8 years? If so, for each such disqualification, identify: who was disqualified; which public agency disqualified; the date of the disqualification; the alleged basis for the disqualification; *NO*
8. Has the Bidder or any principal having an interest in this proposal: (a) filed (voluntarily or involuntarily) for bankruptcy protection; (b) been sued or arbitrated a dispute; been involved in a contract termination involving a public works project; or (c) failed to complete work required by a construction contract? If so, provide detailed information. *NO*
9. Please submit an attachment detailing the following information about all current projects:
  - a) Project Name
  - b) Description of Bidder's Work
  - c) Completion Date
  - d) Project Cost

*SEE ATTACHED.*

Facilities Protection Systems  
CURRENT PROJECTS 2022

Page 1

JOB #	JOB DESCRIPTION	SCOPE	SLS	CONTRACT	Est. Complete
				AMOUNT	
C-3132	IRVINE LANES	Clean Agent and Fire Alarm	TG/FK	18,432	4/15/22
C-3180	COACHELLA VALLEY WATER DISTRICT	Complete chemical system upgrade	FK/TG	494,507	3/30/22
C-3199	KCS HOUSE FOODS	Replacing Fire Alarm system	TG	363,431	5/15/22
C-3259	MOTOCAL1004 LA RICS CA AGH	Clean Agent and Fire Alarm	TG/FK	30,692	4/15/22
C-3361	MOTOCAL1004 081101A	Clean Agent and Fire Alarm	TG/FK	48,828	5/15/22
C-3364	CENTURYLINK SAN JOSE	Nitrogen purge and Fire Alarm	TG/KF/MK	206,924	6/15/22
C-3368	COMCAST	Clean Agent and Fire Alarm	TG/MK/KF	67,532	5/15/22
C-3409	CRANE AEROSPACE	Clean Agent and Fire Alarm	FK/TG	41,492	8/15/22
C-3430	BFPE LARICS SAN DIMAS	Fire Alarm	DW/TG	8,303	4/15/22
C-3431	BFPE LARICS LEBEC	Fire Alarm	DW/TG	5,792	5/15/22
C-3444	MISSION FOODS OXIDER RC	C02 and Fire Alarm	FK/TG	126,804	10/15/22
C-3445	MISSION FOODS OXIDER PC	C02 and Fire Alarm	FK/TG	103,178	10/15/22
C-3457	LA RICS LMR RHT PINE MOUNTAIN	Clean Agent and Fire Alarm	TG/FK	40,332	6/15/22
C-3479	AEROSPACE AGO 16KV SUBSTATION	Fire Alarm	FK/TG	7,997	7/15/22
C-3555	HOWMET AEROSPACE	Fire Alarm	TG/NP	261,800	8/15/22
C-3556	CHARTER WILCOX HUB DSI	VESDA	TG	21,100	5/15/22
C-3557	MISSION FOODS AQUAMIST	Aquamist	TG	110,494	12/15/22
C-3566	ARMC EMCOR	Clean Agent, fire alarm, vesda and EPSMS	TG	214,250	7/15/22
C-3580	DIGITAL REALTY LAX10 SUITE 380	PreAction detection and fire alarm	KF/TG	225,541	9/15/22
C-3582	DLR LAX SUITE 390 EPSMS	EPSMS	DW/TG	42,705	5/15/22
C-3584	RANCHO LOS AMIGOS REHAB CENTER	PreAction detection and fire alarm	TG	33,793	8/15/22
C-3587	CSUSB SENSAPHONE UPGRADE	FA upgrade	DW/TG	7,308	1/15/23
C-3595	HOUSE OF FOOD	Fire Alarm	TG/LT	10,108	7/15/22
C-3598	LAGUNA CANYON IMPROVEMENT	Fire Alarm TI	TG/LT	259,428	10/15/22
C-3603	LAX TAXI WAY	Linear Heat Detection	TG	222,580	6/15/23
C-3605	HOUSE FOOD-BUILDING B RENOVATION-TI	Fire Alarm	TG	95,243	10/15/22
C-3606	METRO CENTER STREET PROJECT	Clean Agent and Fire Alarm	DW/TG	124,594	1/15/23
C-3607	MILILANI HEADEND	Clean Agent and Fire Alarm	TG	224,962	10/15/22
C-3610	VERIZON VISTA MSC	Clean Agent and Fire Alarm	TG	1,068,120	11/15/22
C-3612	LA-RICS BJM	Clean Agent and Fire Alarm	TG	133,119	10/15/22
C-3613	LA-RICS GRM	Clean Agent and Fire Alarm	TG	65,223	10/15/22
C-3614	LA-RICS DPK	Clean Agent and Fire Alarm	TG	59,892	10/15/22
C-3615	LA-RICS MTL2	Clean Agent and Fire Alarm	TG	40,624	10/15/22
C-3616	LA-RICS BUR1	Clean Agent and Fire Alarm	TG	38,686	10/15/22
C-3617	LA-RICS TWR	Clean Agent and Fire Alarm	TG	62,862	10/15/22
C-3618	LA-RICS RPVT	Clean Agent and Fire Alarm	TG	35,875	10/15/22
C-3624	TOYOTA-ENV CHAMBER	PreAction detection and fire alarm	TG	68,782	7/15/22
C-3627	MWD HEADQUARTER	Fire Sprinklers	TG	76,443	8/15/22
C-3628	SCG PLAY DEL REY	Foam	TG	305,372	11/15/22
C-3630	SCG HONOR RANCHO	Foam	TG	153,672	11/15/22
C-3645	NEUROCRINE	Clean Agent, PreAction and VESDA	DW	73,224	6/15/22
C-3649	WEST COAST UNIVERSITY TURELK	Fire Alarm	TG/LT	144,338	5/15/22
C-3656	HOWMET BLDG 5&6	Clean Agent and Fire Alarm	TG	347,968	10/15/22
C-3668	LA-RICS RIO HONDO	Fire Alarm	TG	9,207	4/15/22
C-3675	AEROSPACE A4 DECT DET ADD	Fire Alarm	DW	11,093	4/15/22
C-3677	LA-RICS ESR MT BALDY	Clean Agent and Fire Alarm	TG	57,991	6/15/22
C-3678	CROWN ALLIANCE NOVEC	Clean Agent	TG	120,822	11/15/22
C-3681	AMERICAN TOWER CHEETAH REPLACEMENT	Fire Alarm	KF	84,357	10/15/22
C-3682	AEROSPACE A2 LL	Fire Alarm	DW	29,164	8/15/22
C-3683	NEXT CENTURY PARTNERS	Clean Agent and Fire Alarm	TG	23,784	8/15/22
C-3686	AEROSPACE A5 2ND FLR. E. RR'S	Fire Alarm	DW	16,550	8/15/22
C-3687	LA RICS THERMO BOND LMR	Fire Alarm	TG	9,207	7/15/22
C-3689	ACWM BLDG B TI	Sprinklers/PreAction	TG	253,982	12/15/22

Facilities Protection Systems  
CURRENT PROJECTS 2022

JOB #	JOB DESCRIPTION	SCOPE	SLS	CONTRACT	Est. Complete
				AMOUNT	
C-3692	VLI-EV MODULAR BLDG	NOVEC and Fire Alarm	DW	233,823	1/15/23
C-3695	LAX T5.5 & TBIT	TotalPak	TG	80,000	9/15/22
C-3698	LA RICS THERMO BOND DPW38	Fire Alarm	TG	9,207	7/15/22
C-3699	INSTILBIO	Clean Agent and Fire Alarm	TG	51,292	8/15/22
C-3700	FIRST 5 LA	Clean Agent and Fire Alarm	TG	26,742	8/15/22
C-3701	BECKMAN COULTER	PI2 and Fire Alarm	TG	85,982	8/15/22
C-3706	COVANCE HISTOLOGY	EPSMS	DW	15,000	5/15/22
C-3707	CROWN TECHNICAL SYSTM	Clean Agent	TG	36,392	10/15/22
C-3711	WARNER BROS B157-2 YEAR WARRANTY	Clean Agent and Fire Alarm	TG/LT	170,824	10/15/22
C-3712	RESILIENCE ROSELL	Clean Agent and Fire Alarm	DW	58,372	10/15/22
C-3715	LAX AA T4-PA	Fire Alarm	TG/LT	78,292	11/15/22
C-3716	CHARTER COMMUNICATIONS CYPRESS	Clean Agent, fire alarm and VESDA	TG	239,214	12/15/22
C-3719	NEUROCRINE	Clean Agent, fire alarm and VESDA	DW	155,862	12/15/22
C-3722	VERIZON-VISTA POD PROJECT	Design support fire alarm	TG/LT	35,842	8/15/22
C-3723	GENERAL ATOMICS G34-ECH	Clean Agent, fire alarm and VESDA	DW	234,677	9/15/22
C-3724	LA-RICS-MMC MOUNT	Clean Agent and Fire Alarm	LT	9,252	9/15/22
C-3725	LA-RICS-CRN	Clean Agent and Fire Alarm	LT	9,252	6/15/22
C-3726	LA-RICS UCLA	Clean Agent and Fire Alarm	LT	9,252	6/15/22
C-3727	LA-RICS-BKK	Clean Agent and Fire Alarm	LT	9,252	6/15/22
C-3729	MSG CTI	Linear Heat Detection and Fire Alarm	TG	229,828	1/22/23
C-3732	AMAZON SAN15 EXPANSION	Fire Alarm	DW	16,472	8/15/22
C-3734	PIONEER CEP	Fire Alarm	TG	16,292	8/15/22
C-3735	MISSION FOOD OXIDIZER TANKS	CO2 and Fire Alarm	TG	25,063	11/15/22
C-3736	JPL B350	VESDA	DW	130,275	11/15/22
C-3737	SEMPRA COMPTON	Fire Alarm	TG	37,700	6/15/22
C-3738	TMOBILE IRVINE-SWITCH	NOVEC and Fire Alarm	TG/LT	698,992	12/15/22
C-3740	LENNAR HOMES-MDF BLDG CA SHP	NOVEC and Fire Alarm	TG/LT	21,992	6/15/22
C-3741	AMAZON SNA 16	Fire Alarm	TG/LT	29,992	7/15/22
C-3742	AEROSPACE AGO 16KV SUBSTATION	Fire Alarm	DW	11,372	6/15/22
C-3745	LAX Police Telecom ECARO	Clean Agent and Fire Alarm	TG	280,281	2/15/23
C-3746	CHARTER CHATSWORTH	Fire Alarm	TG	59,992	12/15/22
C-3747	AEROSPACE A8 1128 NETWORK HOTEL	Fire Alarm	TG	15,050	10/15/22
C-3749	SCG Pico Rivera Bldg H Sprink	Sprinklers	TG	4,986	5/15/22
C-3751	HERBALIFE-LEAK DETECTION REV 1	Heat Detection and Fire Alarm	LT	14,040	7/15/22
C-3752	SHERIFF COMMUNICATION CENTER	Calcs and Layouts	TG	4,455	4/15/22
C-3757	TOYOTA GEB GARAGE	NOVEC, fire alarm, flame detection	TG/LT	519,692	2/15/23
C-3758	HOWMET METALS 2T PRESS	PreAction Design	TG	16,400	10/15/22
C-3759	ARMTEC-BLDG 3C	Flame Detection, sprinkler deluge	TG/LT	143,937	11/15/22
C-3760	ARMTEC-BLDG 9	Flame Detection, sprinkler deluge	TG/LT	191,685	11/15/22
C-3761	LA-RICS VPK	Final	TG/LT	4,580	4/15/22
C-3762	ST RESEARCH	Clean Agent and Fire Alarm	TG/LT	89,384	11/15/22
C-3763	HELIOGEN-FA	Fire Alarm	TG/LT	13,043	7/15/22
C-3764	PIONEER CEP SOCAL GAS	Fire Alarm	TG/LT	25,942	8/15/22
C-3765	DATA BANK SAN1-SAN DIEGO	PreAction sprinklers	TG	434,732	12/15/22
C-3766	MPK BLDG A FIRE SYSTEM UPGRADES	PI2 and Marioff	TG	221,236	12/15/22
C-3767	CHARTER CARSON	Clean Agent and Fire Alarm	TG	78,352	9/15/22
C-3768	POMONA USD-SERVER ROOM	NOVEC and Fire Alarm	TG	109,982	10/15/22
C-3769	KAISER WOODLAND HILLS	Sprinkler Design	TG	12,800	7/15/22
C-3770	CHARTER PASADENA	NOVEC, fire alarm, preaction and demo	LT	212,012	11/15/22
C-3771	WARNER BROTHERS BLDG 141	PI2 and Fire Alarm	LT	104,992	10/15/22
C-3773	15435 INNOVATION WAY-DEMO	Demo	LT	3,200	4/15/22
C-3774	ELECTRONIC ARTS	EPSMS	LT	17,036	4/15/22
C-3775	NTS-VESDA INSTAL SD DEMO	VESDA install and Demo	LT	39,352	7/15/22

Facilities Protection Systems  
CURRENT PROJECTS 2022

JOB #	JOB DESCRIPTION	SCOPE	SLS	CONTRACT	Est. Complete
				AMOUNT	
C-3776	CARMICHAEL INT	PI2 and Fire Alarm	LT	41,432	10/15/22
C-3777	ANAHEIM SUB STATION-CANYON	Fire Alarm	DW	33,336	10/15/22
C-3778	HOWMET BLDG 2	PreAction Design	TG	32,000	12/15/22
C-3779	TGS AHU ATTIC MOD	Linear Heat Detection	DW	10,972	10/15/22
C-3780	AGUA CALIENTE RANCHO MIRAGE	PI2 and sprinklers	TG/LT	82,992	11/15/22
C-3781	AGUA CALIENTE PALM SPRINGS	NOVEC and sprinklers	TG/LT	69,592	11/15/22
C-3782	AEROSPACE A8 UPS	Fire Alarm	DW	9,143	9/15/22
C-3783	EQUINIX LA4-4 DESIGN	VESDA and Fire Alarm	KF	8,940	7/15/22
C-3784	SEMPRA HNR TOTE	Foam	TG	16,775	4/15/22
C-3785	MARINE EXCHANGE-VRLA	Design	TG	4,942	5/15/22
C-3786	VERIZON SANTA ANA	Sprinkler retrofit	TG	169,882	11/15/22
C-3787	WATSON COGEN	Fire Alarm	DW	31,870	8/15/22
C-3788	MSG MER BLDG	Linear Heat detection (reorder material)	TG	12,965	10/15/22
C-3789	SOCALGAS PDR	Foam Trailer	TG	110,320	4/15/22
C-3790	SEEBEE MUSEUM	Reapirs	DW	6,899	5/15/22
C-3791	MSG	NOVEC, preaction and fire alarm	DW	64,672	10/15/22
C-3792	SOCALGAS PICO FIRE LOOP	Design	TG	72,232	7/15/22
C-3793	SOCALGAS HIGH PILE	Design	TG	74,232	8/15/22
C-3794	CALTRANS SHELTER	Submittal, permits, start up and AHJ testing	DW	9,267	7/15/22
C-3795	CALTRANS SHELTER	Submittal, permits, start up and AHJ testing	DW	9,267	7/15/22
C-3796	ONESOURCE DISTRIBUTORS	EPSMS	DW	4,388	5/15/22
C-3797	CITY OF DESERT HOT SPRINGS	NOVEC and Fire Alarm	TG	26,532	9/15/22
C-3798	JOSEPH A & ROBERT A WATER TREAT.	Fire alarm	TG	73,362	8/15/22
C-3799	HELIX ELECTRIC	EPSMS	DW	4,388	5/15/22
C-3800	KERRY FOODS	C02 and Fire Alarm	TG	240,392	7/15/22
C-3801	DATABANK SNA2	Fire Alarm and VESDA	KF	385,302	9/15/22
C-3802	SOCALGAS SAN DIMAS	PIV Replacement	TG	29,780	7/15/22
C-3803	CROWN WESTWING SUB	NOVEC and Fire Alarm	TG	164,882	9/15/22
C-3804	BIMBO BAKERY	Flame Detection	DW	13,557	5/15/22
C-3805	TORRANCE REFINERY	Fire Alarm	DW	9,809	6/15/22
C-3806	CHARTER ONTARIO	Clean Agent and Fire Alarm	TG	170,542	7/15/22

**3N: PARTY AND PARTICIPANT DISCLOSURE FORMS**

**Campaign Contributions Disclosure:** In conformance with the statutory requirements of the State of California Government Code Section 84308, part of the Political Reform Act and Title 2, California Code of Regulations 18438 through 18438.8, regarding campaign contributions to members of appointed Boards of Directors, Offeror is required to complete the attached Party and Participant Disclosure Forms and submit as part of the proposal, **if applicable**.

Offeror is required to submit only one copy of the completed form(s) as part of its proposal. This/these form(s) should be included in the original RFP. The Offeror and subcontractors must complete the form entitled "Party Disclosure Form". Lobbyists or agents representing the Offeror in this procurement must complete the form entitled "Participant Disclosure Form". Reporting of campaign contributions is a requirement from the proposed submittal date up and until the OCFA Board of Directors takes action.

**ORANGE COUNTY FIRE AUTHORITY  
BOARD OF DIRECTORS**

**David John Shawver, Chair**  
City of Stanton

**Ross Chun, Director**  
City of Aliso Viejo

**Frances Marquez, Director**  
City of Cypress

**John O'Neill, Director**  
City of Garden Grove

**Don Sedgwick, Director**  
City of Laguna Hills

**Noel Hatch, Director**  
City of Laguna Woods

**Shelley Hasselbrink, Director**  
City of Los Alamitos

**Carol Gamble, Director**  
City of Rancho Santa Margarita

**Troy Bourne, Director**  
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**Joe Kalmick, Director**  
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**Vince Rossini, Director**  
City of Villa Park

**Eugene Hernandez, Director**  
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**Michele Steggell, Vice Chair**  
City of La Palma

**Sunny Park, Director**  
City of Buena Park

**Joseph Muller, Director**  
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**Anthony Kuo, Director**  
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**Sandy Rains, Director**  
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**Mark Tettemer, Director**  
City of Lake Forest

**Ed Sachs, Director**  
City of Mission Viejo

**Kathy Ward, Director**  
City of San Clemente

**Jessie Lopez, Director**  
City of Santa Ana

**Letitia Clark, Director**  
City of Tustin

**Tri Ta, Director**  
City of Westminster

**Donald Wagner, Director**  
County of Orange

**Lisa Bartlett, Director**  
County of Orange

## PARTY DISCLOSURE

The attached *Party Disclosure Form* must be completed and submitted by the Offeror and subcontractors with the proposal by all firms subject to the campaign contribution disclosure requirements stated in Section VI this solicitation. It is anticipated that a recommendation for award of this contract will be presented to the Board of Directors of OCFA for approval. (Please see next page for definitions of these terms.)

## IMPORTANT NOTICE

Basic Provisions of Government Code Section 84308

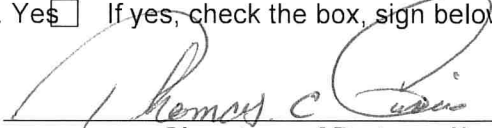
- A. If you are an applicant for, or the subject of, any contract award, you are prohibited from making a campaign contribution of more than \$250 to any board member or his or her alternate. This prohibition begins on the date the solicitation is initiated, and the prohibition ends three months after a final decision is rendered by the Board of Directors. In addition, no board member or alternate may solicit or accept a campaign contribution of more than \$250 from you during this period.
- B. These prohibitions also apply to your agents, and, if you are a closely held corporation, to your majority shareholder as well. These prohibitions also apply to your subcontractor(s), joint venturer(s), and partner(s) in this proceeding. Also included are parent companies and subsidiary companies directed and controlled by you, and political action committees directed and controlled by you.
- C. You must file the attached disclosure form and disclose whether you or your agent(s) have in the aggregate contributed more than \$250 to any board member or his or her alternate during the 12-month period preceding the contract award.
- D. If you or your agent have in the aggregate contributed more than \$250 to any individual board member or his/or her alternate during the 12 months preceding the decision on the contract award or proceeding, that board member or alternate must disqualify himself or herself from the decision. However, disqualification is not required if the board member or alternate returns the campaign contribution within 30 days from the time the director knows, or should have known, about both the contribution and the fact that you are a party in the proceeding. The Party Disclosure Form should be completed and filed with your proposal, or with the first written document you file or submit after the proceeding commences.
  - 1. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements<sup>1</sup> for use, including all entitlements for land use, all contracts<sup>2</sup> (other than competitively bid, labor or personal employment contracts), and all franchises.
  - 2. Your "agent" is someone who represents you in connection with a proceeding involving a license, permit or other entitlement for use. If an individual acting as an agent is also acting in his or her capacity as an employee or member of a law, architectural, engineering, consulting firm, or similar business entity, both the business entity and the individual are "agents."
  - 3. To determine whether a campaign contribution of more than \$250 has been made by you, campaign contributions made by you within the preceding 12 months must be aggregated with those made by your agent within the preceding 12 months or the period of the agency, whichever is shorter. Contributions made by your majority shareholder (if a closely held corporation), your subcontractor(s), your joint venturer(s), and your partner(s) in this proceeding must also be included as part of the aggregation. Campaign contributions made to different directors or their alternates are not aggregated.

This notice summarizes the major requirements of Government Code Section 84308 of the Political Reform Act and 2 Cal. Adm. Code Sections 18438-18438.8 as it relates to contract awards.

<sup>1</sup> Entitlement for the purposes of this form refers to contract award. <sup>2</sup> All Contracts for the purposes of this form refer to the contract award of this specific solicitation.

**PARTY DISCLOSURE FORM**Party's Name: Intelligent Technologies and Services, Inc. dba Facilities Protection SystemsParty's Address: 1150 W. Central Ave., #D Brea, CA 92821Party's Telephone: 714-257-2244Solicitation Title and Number: Clean Agent Fire Suppression System - RFOTC / RO2537A

Based on the party disclosure information provided, are you or your firm subject to party disclosures?  
No ☒ If no, check the box and sign below. Yes ☐ If yes, check the box, sign below and complete the form.

Date: 4-5-2022  
Signature of Party and/or Agent

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***To be completed only if campaign contributions have been made in the preceding twelve (12) months. Attach additional copies if needed.***

Board Member(s) to whom you and/or your agent made campaign contributions and dates of contribution(s) in the preceding 12 months:

Name of Member: \_\_\_\_\_

Name of Contributor (if other than Party): \_\_\_\_\_

Date(s): \_\_\_\_\_

Amount(s): \_\_\_\_\_

Name of Member: \_\_\_\_\_

Name of Contributor (if other than Party): \_\_\_\_\_

Date(s): \_\_\_\_\_

Amount(s): \_\_\_\_\_

**PARTICIPANT (AGENT) DISCLOSURE**

The *Participant Disclosure Form* must be completed by lobbyists or agents representing the Offeror in this procurement. It is anticipated that a recommendation for award of this contract will be presented to the Board of Directors of OCFA for approval.

**IMPORTANT NOTICE**

Basic Provisions of Government Code Section 84308

- A. If you are a participant in a proceeding involving any contract award, you are prohibited from making a campaign contribution of more than \$250 to any Board member. This prohibition begins on the date you begin to actively support or oppose an application for contract award pending before OCFA or any of its affiliated agencies, and continues until three months after a final decision is rendered on the application or proceeding by the Board of Directors. No Board member may solicit or accept a campaign contribution of more than \$250 from you and/or your agency during this period if the Board member knows or has reason to know that you are a participant.
- B. The attached disclosure form must be filed if you or your agent has contributed more than \$250 to any Board member for OCFA or any of its affiliated agencies during the 12-month period preceding the beginning of your active support or opposition (The disclosure form will assist the Board members in complying with the law).
- C. If you or your agent have made a contribution of more than \$250 to any Board member during the 12 months preceding the decision in the proceeding, that Board member must disqualify himself or herself from the decision. However, disqualification is not required if the Board member returns the campaign contribution within 30 days from the time the Board member knows, or should have known, about both the contribution and the fact that you are a participant in the proceeding.

The Participant Disclosure Form should be completed and filed with the proposal submitted by a party, or should be completed and filed the first time that you lobby in person, testify in person before, or otherwise directly act to influence the vote of the Board members of OCFA or any of its affiliated agencies.

1. An individual or entity is a "participant" in a proceeding involving an application for a license, permit or other entitlement for use if:
  - a. The individual or entity is not an actual party to the proceeding, but does have a significant financial interest in the OCFA's or one of its affiliated agencies' decisions in the proceeding; **AND**
  - b. The individual or entity, directly or through an agent, does any of the following:
    - i. Communicates directly, either in person or in writing, with a Board member of OCFA or any of its affiliated agencies for the purpose of influencing the Board member's vote on the proposal;
    - ii. Communicates with an employee of OCFA or any of its affiliated agencies for the purpose of influencing a Board member's vote on the proposal; or
    - iii. Testifies or makes an oral statement before the Board of Directors of OCFA or any of its affiliated agencies.
2. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements for use, including all entitlements for land use; all contracts (other than competitively bid, labor, or personal employment contracts) and all franchises.
3. Your "agent" is someone who represents you in connection with a proceeding for this proposed involving a contract award. If an agent acting as an employee or member of a law, architectural, engineering, or consulting firm, or a similar business entity or corporation, both the business entity or corporation and the individual are agents.
4. To determine whether a campaign contribution of more than \$250 has been made by a participant or his or her agent, contributions made by the participant within the preceding 12 months shall be aggregated with those made by the agent within the preceding 12 months or the period of the agency, whichever is shorter. Campaign contributions made to different Board members are not aggregated.

*This notice summarizes the major requirements of Government Code Section 84308 and 2 Cal. Adm. Code Sections 18438-18438.8*

**PARTICIPANT (AGENT) DISCLOSURE FORM**Prime's Firm Name: Intelligent Technologies and Services, Inc. dba Facilities Protection SystemsParty's Name: Thomas C. GarciaParty's Address: 1150 W. Central Ave., #D, Brea, CA 92821Party's Telephone: 714-257-2244

Solicitation Title and Number:

Based on the participant disclosure information provided, are you or your firm subject to participant disclosures?

No ☒ If no, check the box and sign below. Yes ☐ If yes, check the box, sign below and complete the form.Date: 4-5-2022  
Signature of Party and/or Agent***To be completed only if campaign contributions have been made in the preceding twelve (12) months. Attach additional copies if needed.***

Board Member(s) to whom you and/or your agent made campaign contributions and dates of contribution(s) in the preceding 12 months:

**Name of Board****Member:** \_\_\_\_\_**Name of Contributor (if other than Party):** \_\_\_\_\_**Date(s):** \_\_\_\_\_**Amount(s):** \_\_\_\_\_**Name of Board****Member:** \_\_\_\_\_**Name of Contributor (if other than Party):** \_\_\_\_\_**Date(s):** \_\_\_\_\_**Amount(s):** \_\_\_\_\_



April 4<sup>th</sup> 2022

Rothchild Ong

**Orange County Fire Authority**

1 Fire Authority Rd. Irvine, CA 92602

**Ref: OCFA – Room B120 & B121 – Waterless Clean Agent Fire Supp. System (Solicitation #: RO2537A)**  
1 Fire Authority Rd. Irvine, CA 92602

**SCOPE OF WORK: NOVEC Waterless Clean Agent System Installation**

FPS will provide a new Potter ARC-100 control panel with new Air Sampling detection, NOVEC clean agent suppression system, horn/strobe notification, monitoring, agent release stations & agent abort stations. FPS will provide the design, permits, equipment, installation, testing and commissioning. FPS will provide the completed design for the system based on the drawings provided by OCFA dated Nov. 1, 2021. Addendum #1 has been included in this proposal. Per the March 21st site walk bidders were asked to provide pricing from HCI for the addition of fire alarm modules to monitor the new clean agent panel, this modification to the bid was not included in any of the addendums.

- Room B120: 12' Height, Subfloor 1' = 2,250' Area = 29,250 ft<sup>3</sup> (per dwgs) – 1292 lbs. of NOVEC
- Room B121: 12' Height, Subfloor 1' = 1,767' Area = 22,971 ft<sup>3</sup> (per dwgs) – 1011 lbs. of NOVEC

**Summary of Deliverables:**

As Build Engineer, Furnish, and Install (EF&I) of equipment	Included
Submittals, Plan Check	Included
Complete installation during normal business hours	Included
System Start up and Functional Testing	Included
Training, Operation Manuals & As-Built Drawings	Included
Maintenance Program	Available
One-Year Warranty	Included

**Cost Breakout for the NOVEC Waterless Fire Suppression System**

<b>Design &amp; Engineering:</b>	<b>\$5,267.00</b>
<b>Local AHJ Permits</b>	<b>\$2,000.00</b>
<b>NOVEC Tanks &amp; Agent, Smoke Det., Modules &amp; Fike Panel: Material</b>	<b>\$159,779.00</b>
<b>Suppression &amp; Air Sampling Low Voltage Installation: Labor &amp; Material</b>	<b>\$67,426.00</b>
<b>Clean Agent Mechanical Installation: Labor &amp; Material</b>	<b>\$70,430.00</b>
<b>Project Management Labor</b>	<b>\$8,430.00</b>
<b>System Commissioning &amp; Final AHJ Inspection</b>	<b>\$6,660.00</b>
<b>Total Cost Incurred:</b>	<b>\$319,992.00</b>

**Alternate Add: 3/21/22 Site Walk Request for HCI Fire Alarm Work to be Covered by Bidders – No Clarification was Given in the Addendums. Therefore, it is shown as an alternate add. \$7,500.00**

FPS

1150 W Central Ave Suite D, Brea, CA 92821 - T: (714) 257-2244 - F: (714) 510-3217 CSL No. 592289 - C-10 & C-16 | DIR 1000005555  
OCFA – Server/Radio Rm – Clean Agent (#: 22-22548) [www.fpsys.com](http://www.fpsys.com)

Page 1 of 3  
BOD Item 2G, Attach. 3, Page 71



**Clarifications:**

1. Fire stopping included only for our penetrations
2. Based on prevailing wage installation during normal business hours
3. Factory Trained Labor rates: \$195/hr. STD, \$266/hr. OT, and \$334/hr. DT
4. FPS will provide on-site supervision and coordination with other trades for our work
5. Additional work, inspections, field visits, meetings, etc. shall be billed according to the labor rates provided and FPS' published labor rates
6. For suppression systems it is often necessary to have a trained technician address the Fire Control Panel while other work is being performed
7. This proposal is based on the availability of material
8. Due to the recent pandemic and current cost increase this cost can only be held for the next 14 days
9. EMR & TRIR numbers from the last 3 years:

	Year	#	Year	#	Year	#
EMR	2019	.76	2020	.56	2021	.72
TRIR	2019	0	2020	0	2021	0

**Proposal Excludes:**

1. Fire watch
2. P.E. Stamp
3. BIM Modeling
4. Off hours work
5. Rigid Electrical Piping
6. Overtime for project acceleration
7. PLA agreements are not included
8. 120V Power outside of our scope of work
9. Provision of any purge or exhaust systems
10. Additional dampers and or Smoke dampers
11. Abatement of any hazardous building materials
12. Changes by fire departments wants and not needs
13. Overtime for AHJ acceptance testing and/or AHJ overtime fee
14. Painting, coring, wall patch, overtime or premium time labor not included
15. Overtime for project delays not directly attributed to the fire suppression scope of work
16. Excludes the following: Note FPS can provide many of the items below should they become necessary
  - a. Any fees or labor required for access onto the jobsite including background checks
  - b. Interconnection or modifications to existing fire life safety, bldg. notification, evacuation, shutdowns, HVAC, sprinklers, etc. except as described in the scope above
17. Based on surface mounting of our system including conduit, panels, back boxes, piping, etc.



# FPS

Specialists in Fire Systems

## Terms:

1. FPS cannot be held to their pricing for material for more than 10 days because of the everchanging market increases. Once design has been completed FPS will provide additional material cost as a change order.
2. Due to the on-going Federally Declared National Emergency because of the COVID-19 Pandemic. FPS must make you, our customer, aware that any unexpected delays and increases are entirely out of our control. Therefore, we are informing our customers that we have the right to extend the project schedule and provide cost increases due to the nature of the current market.
3. Payment terms: Progress payments net 30 days from invoice
4. 15% on submittal of design drawings, 50% on delivery of equipment, 25% upon the completed installation, and 10% upon system final inspection

## Acceptance:

If the forgoing is acceptable, please return a copy of this proposal authorized individual, as our notice to proceed. The terms and conditions of this proposal are binding if the document is countersigned and returned within 30 days.

Accepted By:

Company: \_\_\_\_\_

Signed: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

P.O #: \_\_\_\_\_

Proposed By:

Company: ***Facilities Protection Systems*** \_\_\_\_\_

Signed: \_\_\_\_\_

By: ***Thomas Garcia*** \_\_\_\_\_

Title: ***Account Team Manager*** \_\_\_\_\_

Date: \_\_\_\_\_

FPS

#### **SECTION 4: CONTRACT DOCUMENTS**

##### **CONTRACT SUBMITTALS (SUCCESSFUL BIDDER ONLY)**

Within fourteen calendar days (14) of the issuance of the Notice to Proceed, the successful Bidder must submit the documents below. Failure to do so may result in the contract being deemed abandoned.

☒ **Transmittal Page Two – Bid Award Documents** (Exhibit 4A)

☒ **Original Performance Bond** (Exhibit 4B)

☒ **Original Payment (Labor and Materials) Bond** (Exhibit 4C)

☒ **Award Certifications** (Exhibit 4D)

☒ **IRS Form W9** (Exhibit 4E)

☒ **All required Insurance Certificates and Endorsements**

☒ **Signed Contract Agreement** (Exhibit 4F)

☒ **General Conditions** (Exhibit 4G)

**4A: TRANSMITTAL PAGE TWO – BID AWARD DOCUMENTS****TO:** Orange County Fire Authority**FROM:** Intelligent Technologies Inc DBA Facilities Protection Systems

(Legal Name of Contractor)

**PROJECT:** RO2537A - CLEAN AGENT FIRE SUPPRESSION SYSTEM - RFOTC**AWARDED CONTRACTOR'S CHECKLIST:**

The awarded Contractor is required to provide the following documents:

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Transmittal Page (Exhibit 4A) | <input checked="" type="checkbox"/> Award Certifications (Exhibit 4D) | <input checked="" type="checkbox"/> Signed Agreement (Exhibit 4F) |
| <input checked="" type="checkbox"/> Performance Bond (Exhibit 4B) | <input checked="" type="checkbox"/> W9 (Exhibit 4E)                   |   |
| <input checked="" type="checkbox"/> Payment Bond (Exhibit 4C)     | <input checked="" type="checkbox"/> Insurance Certificates            |   |

**TO THE OCFA:**

Signature below acknowledges that, should the Contractor fail to provide the above documents in a form satisfactory to OCFA within fourteen days of the issuance of the Notice of Award, OCFA may, at its option, consider the Contractor to have abandoned the agreement, upon which the full payment of the sum stated in the Bidder's Bond shall be due immediately.

**SIGNATURE OF CONTRACTOR:****PRINTED NAME:** Jack Gerard**TITLE:** General Manager

**4B: FAITHFUL PERFORMANCE BOND**

(100% of Agreement Price)

**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and Facilities Protection Systems, Inc. ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**IFB RO2537A - CLEAN AGENT FIRE SUPPRESSION SYSTEM - RFOTC**

("Contract") which Contract dated [DATE], and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, the Principal and Western Surety Company ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of THREE HUNDRED NINETEEN THOUSAND, NINE HUNDRED, NINETY-TWO DOLLARS (\$319,992), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the OCFA all damages the OCFA incurs as a result of the Principal's failure to perform all the work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the OCFA, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the OCFA from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the OCFA's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

**[Signature Page Follows]**

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 10 day of MAY, 2022 in accordance with Article 5, commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

**CONTRACTOR:**

(Affix Corporate Seal)

Facilities Protection Systems, Inc.  
1150 W. Central Ave., Ste. D, Brea, CA 92821

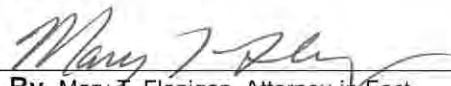
**Principal**By 

JACK GERARD, ASSISTANT SECRETARY  
**Print Name and Title of Signatory**

**SURETY:**

(Affix Corporate Seal)

Western Surety Company  
151 N. Franklin Street, Chicago, IL 60606 (312) 822-5000

**Surety**By  Mary T. Flanigan, Attorney-in-Fact

Charles R. Teter III

**Name of California Agent of Surety**

777 S. Figueroa St., Suite 5200  
Los Angeles, CA 90017

**Address of California Agent of Surety**

(213) 689-0500

**Telephone Number of California Agent of Surety**

Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of CALIFORNIA  
County of ORANGE

On MAY 11, 2022 before me, MARISOL JORDIN, Notary Public  
Date Name and Title of Notary

personally appeared JACK GERARD  
Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature [Signature]  
Notary Public Signature



Place Notary Public Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

## Description of Attached Document

Title or Type of Document \_\_\_\_\_

Document Date \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of Missouri  
County of Jackson



On May 10, 2022 before me, C. Stephens Griggs, Notary Public  
Date Name and Title of Notary

personally appeared Mary T. Flanigan  
Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature C. Stephens Griggs  
Notary Public Signature

**C. STEPHENS GRIGGS**  
**NOTARY PUBLIC-NOTARY SEAL**  
**STATE OF MISSOURI**  
**JACKSON COUNTY**  
**MY COMMISSION EXPIRES 6/21/2023**  
**COMMISSION # 15204106**

Place Notary Public Seal Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

## Description of Attached Document

Title or Type of Document \_\_\_\_\_

Document Date \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_

**RIGHT THUMBPRINT**  
**OF SIGNER**  
Top of thumb

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_

**RIGHT THUMBPRINT**  
**OF SIGNER**  
Top of thumb

# Western Surety Company

## POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

**Know All Men By These Presents**, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

**Patrick T. Pribyl, Debra J. Scarborough, Mary T. Flanigan, Christy M. Braile, Jeffrey C. Carey, Charles R. Teter III, Evan D. Sizemore, Charissa D. Lecuyer, Rebecca S. Leal, C. Stephens Griggs, Tahitia M. Fry, Kellie A. Meyer, Veronica Lawver, Lauren Scott, Erin C. Lavin, Hillary D. Shepard, Individually**

of Kansas City, MO, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

### - In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

**In Witness Whereof**, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 2nd day of December, 2021.



WESTERN SURETY COMPANY

*Paul T. Bruflat*

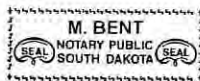
Paul T. Bruflat, Vice President

State of South Dakota }  
County of Minnehaha } ss

On this 2nd day of December, 2021, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



*M. Bent*

M. Bent, Notary Public

### CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this      day of



WESTERN SURETY COMPANY

*L. Nelson*

L. Nelson, Assistant Secretary

Form F4280-7-2012

Go to [www.cnasurety.com](http://www.cnasurety.com) > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

**Authorizing By-Law**

**ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY**

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

**4C: PAYMENT BOND**  
**Contractor's Labor & Material Bond**  
(100% of Agreement Price)  
**Bidders must use this form, NOT a surety company form**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and Facilities Protection Systems, Inc., ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**IFB RO2537A - CLEAN AGENT FIRE SUPPRESSION SYSTEM - RFOTC**

("Contract") which Contract dated [DATE], and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and, Western Surety Company ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of THREE HUNDRED NINETEEN THOUSAND, NINE HUNDRED, NINETY-TWO DOLLARS (\$319,992) lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

**[Signature Page Follows]**

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of CALIFORNIA  
 County of ORANGE  
 On MAY 11, 2022 before me, MARISOL JORDIN, Notary Public  
 Date Name and Title of Notary  
 personally appeared JACK GERARD  
 Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.



Witness my hand and official seal.

Signature [Signature]  
 Notary Public Signature

Place Notary Public Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

## Description of Attached Document

Title or Type of Document \_\_\_\_\_

Document Date \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

RIGHT THUMBPRINT  
 OF SIGNER  
 Top of thumb

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

RIGHT THUMBPRINT  
 OF SIGNER  
 Top of thumb

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of Missouri  
County of Jackson



On May 10, 2022 before me, C. Stephens Griggs, Notary Public  
Date Name and Title of Notary

personally appeared Mary T. Flanigan  
Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

**C. STEPHENS GRIGGS**  
**NOTARY PUBLIC-NOTARY SEAL**  
**STATE OF MISSOURI**  
**JACKSON COUNTY**  
**MY COMMISSION EXPIRES 6/21/2023**  
**COMMISSION # 15204195**

Witness my hand and official seal.

Signature C. Stephens Griggs  
Notary Public Signature

Place Notary Public Seal Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

## Description of Attached Document

Title or Type of Document \_\_\_\_\_

Document Date \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RIGHT THUMBPRINT  
OF SIGNER**  
Top of thumb



- ☐ Individual
- ☐ Corporate Officer – Title(s): \_\_\_\_\_
- ☐ Partner - ☐ Limited ☐ General
- ☐ Guardian or Conservator
- ☐ Attorney-in-Fact
- ☐ Trustee
- ☐ Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RIGHT THUMBPRINT  
OF SIGNER**  
Top of thumb



# Western Surety Company

## POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

**Patrick T. Pribyl, Debra J. Scarborough, Mary T. Flanigan, Christy M. Braile, Jeffrey C. Carey, Charles R. Teter III, Evan D. Sizemore, Charissa D. Lecuyer, Rebecca S. Leal, C. Stephens Griggs, Tahitia M. Fry, Kellie A. Meyer, Veronica Lawver, Lauren Scott, Erin C. Lavin, Hillary D. Shepard, Individually**

of Kansas City, MO, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

### - In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 2nd day of December, 2021.



WESTERN SURETY COMPANY

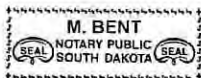
Paul T. Bruflat, Vice President

State of South Dakota }  
County of Minnehaha } ss

On this 2nd day of December, 2021, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



M. Bent, Notary Public

### CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this                      day of                      ,                      .



WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Form F4280-7-2012

Go to [www.cnasurety.com](http://www.cnasurety.com) > Owner / Obligor Services > Validate Bond Coverage, if you want to verify bond authenticity.

**Authorizing By-Law**

**ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY**

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

STATE OF CALIFORNIA  
DEPARTMENT OF INSURANCE  
SAN FRANCISCO

AMENDED  
Certificate of Authority

THIS IS TO CERTIFY, That, pursuant to the Insurance Code of the State of California,

WESTERN SURETY COMPANY

of SIOUX FALLS, SOUTH DAKOTA, organized under the  
laws of SOUTH DAKOTA, subject to its Articles of Incorporation or  
other fundamental organizational documents, is hereby authorized to transact within this State,  
subject to all provisions of this Certificate, the following classes of insurance:

SURETY and LIABILITY

as such classes are now or may hereafter be defined in the Insurance Laws of the State of California.

THIS CERTIFICATE is expressly conditioned upon the holder hereof now and hereafter being in  
full compliance with all, and not in violation of any, of the applicable laws and lawful requirements  
made under authority of the laws of the State of California as long as such laws or requirements are  
in effect and applicable, and as such laws and requirements now are, or may hereafter be changed  
or amended.

IN WITNESS WHEREOF, effective as of the 21ST day  
of MARCH, 1975, I have hereunto set  
my hand and caused my official seal to be affixed this 21ST  
day of MARCH, 1975.

Fee

Rec. No.

Filed

By

WESLEY J. KINDER  
Insurance Commissioner

*William M. Miles*  
Deputy

NOTICE:

Qualification with the Secretary of State must be accomplished as required by the California Corporations Code promptly after issuance of this Certificate of Authority. Failure to do so will be a violation of Ins. Code Sec. 701 and will be grounds for revoking this Certificate of Authority pursuant to the covenants made in the application therefor and the conditions contained herein.

**4D: AWARD CERTIFICATIONS****Prevailing Wage:**

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hour notice, payroll records, and apprentice and trainee employment requirements, for all Services on the above Project, including, without limitation, the State labor compliance monitoring and enforcement by the Compliance Monitoring Unit of the Department of Industrial Relations, if this Project is subject to a labor compliance.

**Workers' Compensation:**

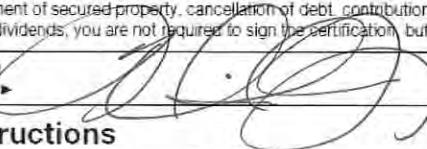
In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract. CA Labor Code section 3700 in relevant part provides that every employer except the State shall secure the payment of compensation in one or more of the following ways: (1) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state; (2) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees. I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract.

**Date:**MAY 17, 2022**Legal Name of****Contractor:**Intelligent Technologies Inc dba Facilities Protection Systems**Signature:****Printed Name:**Jack Gerard**Title:**General Manager

**4E: IRS FORM W9**

Form <b>W-9</b> (Rev. October 2018) Department of the Treasury Internal Revenue Service	<b>Request for Taxpayer Identification Number and Certification</b> ▶ Go to <a href="http://www.irs.gov/FormW9">www.irs.gov/FormW9</a> for instructions and the latest information.	Give Form to the requester. Do not send to the IRS.
1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>INTELLIGENT TECHNOLOGIES &amp; SERVICES INC</b>		
2 Business name/disregarded entity name, if different from above <b>FACILITIES PROTECTION SYSTEMS</b>		
Print or type. See Specific Instructions on page 3.	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.	
	<input type="checkbox"/> Individual/sole proprietor or single-member LLC	
	<input checked="" type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate	
	<input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ <small>Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.</small>	
<input type="checkbox"/> Other (see instructions) ▶ _____		4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____  Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
5 Address (number, street, and apt. or suite no.) See instructions. <b>1150 W. CENTRAL AVE #D</b>		Requester's name and address (optional) <b>OCFA</b>
6 City, state, and ZIP code <b>BREA, CA 92821</b>		
7 List account number(s) here (optional)		

<b>Part I Taxpayer Identification Number (TIN)</b> Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> , later. <b>Note:</b> If the account is in more than one name, see the instructions for line 1. Also see <i>What Name and Number To Give the Requester</i> for guidelines on whose number to enter.	
	Social security number <div style="border: 1px solid black; height: 20px; width: 100%;"></div> or Employer identification number <div style="border: 1px solid black; padding: 2px;"> <b>95-4257030</b> </div>

<b>Part II Certification</b> Under penalties of perjury, I certify that:	
1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and 3. I am a U.S. citizen or other U.S. person (defined below); and 4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.	
<b>Certification instructions.</b> You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.	
Sign Here	Signature of U.S. person ▶ 
	Date ▶ <b>5.19.22</b>

<b>General Instructions</b> Section references are to the Internal Revenue Code unless otherwise noted. <b>Future developments.</b> For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to <a href="http://www.irs.gov/FormW9">www.irs.gov/FormW9</a> . <b>Purpose of Form</b> An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following: <ul style="list-style-type: none"> <li>• Form 1099-DIV (dividends, including those from stocks or mutual funds)</li> <li>• Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)</li> <li>• Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)</li> <li>• Form 1099-S (proceeds from real estate transactions)</li> <li>• Form 1099-K (merchant card and third party network transactions)</li> <li>• Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)</li> <li>• Form 1099-C (canceled debt)</li> <li>• Form 1099-A (acquisition or abandonment of secured property)</li> </ul> Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN. If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.	• Form 1099-DIV (dividends, including those from stocks or mutual funds) • Form 1099-MISC (various types of income, prizes, awards, or gross proceeds) • Form 1099-B (stock or mutual fund sales and certain other transactions by brokers) • Form 1099-S (proceeds from real estate transactions) • Form 1099-K (merchant card and third party network transactions) • Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition) • Form 1099-C (canceled debt) • Form 1099-A (acquisition or abandonment of secured property) Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN. If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.
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# CERTIFICATE OF LIABILITY INSURANCE

9/30/2022

DATE (MM/DD/YYYY)

5/17/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000 kctsu@lockton.com	<b>CONTACT NAME:</b>	<b>FAX (A/C, No):</b>	
	<b>PHONE (A/C, No, Ext):</b>	<b>E-MAIL ADDRESS:</b>	
<b>INSURED</b> 1466958 INTELLIGENT TECHNOLOGIES & SERVICES, INC. dba FACILITIES PROTECTION SYSTEMS 289 PILOT ROAD, SUITE B LAS VEGAS NV 89119	<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
	<b>INSURER A:</b> Gemini Insurance Company		10833
	<b>INSURER B:</b> Travelers Property Casualty Co of America		25674
	<b>INSURER C:</b> Lloyd's of London		38253
	<b>INSURER D:</b> Lexington Insurance Company		19437
	<b>INSURER E:</b>		
<b>INSURER F:</b>			

**COVERAGES \*\*\*** **CERTIFICATE NUMBER:** 18545907 **REVISION NUMBER:** XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> \$100,000 DED GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y	Y	VMGP004346	9/30/2021	9/30/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
B	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> \$500 COMP <input checked="" type="checkbox"/> \$1,000 COLL	Y	Y	810-5387B882-21-14	9/30/2021	9/30/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
D	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	Y	Y	16123033	9/30/2021	9/30/2022	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$ XXXXXXXX
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	Y	UB-8K759731-21-14-G	9/30/2021	9/30/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	<b>PROFESSIONAL LIABILITY/ ERRORS &amp; OMISSIONS</b>	N	N	PFIKE000321	9/30/2021	9/30/2022	\$2,000,000 EACH OCCURRENCE \$2,000,000 AGGREGATE \$150,000 DEDUCTIBLE

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

SOLICITATION R02537A. OCFA, ITS OFFICIALS, OFFICERS, EMPLOYEES, AGENTS, REPRESENTATIVES, ATTORNEYS, AND VOLUNTEERS, ARE ADDITIONAL INSURED ON A PRIMARY AND NONCONTRIBUTORY BASIS FOR GENERAL LIABILITY, AUTO AND UMBRELLA AS REQUIRED BY WRITTEN CONTRACT. A WAIVER OF SUBROGATION APPLIES IN FAVOR OF ADDITIONAL INSURED WHERE ALLOWED BY LAW.

**CERTIFICATE HOLDER**

18545907  
ORANGE COUNTY FIRE AUTHORITY  
1 FIRE AUTHORITY ROAD  
IRVINE CA 92602

**CANCELLATION** See Attachments

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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**Policy Number: VMGP004346****CG 20 10 12 19****Insured Name: Fike Corporation****Number: 64****Effective Date:09/30/2021**

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.  
 ADDITIONAL INSURED – OWNERS, LESSEES OR  
 CONTRACTORS – SCHEDULED PERSON OR  
 ORGANIZATION**

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

<b>Schedule</b>	
<b>Name Of Additional Insured Person(s) Or Organization(s)</b>	<b>Location(s) Of Covered Operations</b>
Any person or organization when you have agreed in a written and executed contract, prior to an "occurrence", that such person or organization be added as an additional insured on your policy.	All locations for which you have agreed in a written and executed contract prior to an "occurrence."
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

**A. Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

- C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance**:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable limits of insurance;

whichever is less.

This endorsement shall not increase the applicable limits of insurance.

All other terms and conditions of this Policy remain unchanged.

Policy Number: VMGP004346  
Insured Name: Fike Corporation  
Number: 101

VE 09 73 04 20

Effective Date: 9/30/2021

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**PRIMARY AND NONCONTRIBUTORY –  
OTHER INSURANCE CONDITION**

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary: **Primary And Noncontributory Insurance**

This insurance is primary to and will not seek contribution from any other Commercial General Liability insurance available to an additional insured under your policy, but only if:

- (1) The additional insured is a Named Insured under such other Commercial General Liability insurance; and
- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other Commercial General Liability insurance available to the additional insured.

Coverage granted to an additional insured remains subject to all terms, conditions, limitations, and exclusions set forth in the endorsement form that conferred the additional insured status. In the event of conflict between this endorsement and an endorsement conferring additional insured status, then the endorsement conferring additional insured status shall govern the scope of coverage available to the additional insured.

All other terms and conditions of this Policy remain unchanged.

**Policy Number: VMGP004346**  
**Insured Name: Fike Corporation**  
**Number: 93**

**CG 24 04 12 19**

**Effective Date: 9/30/2021**

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**WAIVER OF TRANSFER OF RIGHTS OF RECOVERY  
AGAINST OTHERS TO US (WAIVER OF SUBROGATION)**

This endorsement modifies insurance provided under the following:  
Commercial General Liability Coverage Part

<b>Schedule</b>
-----------------

**Name Of Person(s) Or Organization(s):**

Any person or organization you have agreed in a written and executed contract, prior to an "occurrence", that you would provide such person or organization a waiver of transfer of rights of recovery against others to us on your policy.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.
--

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Conditions**:

We waive any right of recovery against the person(s) or organization(s) shown in the Schedule above because of payments we make under this Coverage Part. Such waiver by us applies only to the extent that the insured has waived its right of recovery against such person(s) or organization(s) prior to loss. This endorsement applies only to the person(s) or organization(s) shown in the Schedule above.

All other terms and conditions of this Policy remain unchanged.

**POLICY NUMBER:** 810-5387B882-21-14

**COMMERCIAL AUTO**

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**BLANKET ADDITIONAL INSURED - PRIMARY AND  
NON-CONTRIBUTORY WITH OTHER INSURANCE**

This endorsement modifies insurance provided under the following:

**BUSINESS AUTO COVERAGE FORM**

**PROVISIONS**

**1. The following is added to Paragraph A.1 .c., Who Is An Insured, of SECTION II — COVERED AUTOS  
LIABILITY COVERAGE:**

This includes any person or organization who you are required under a written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to named as an additional insured for Covered Autos Liability Coverage, but only for damages to which this insurance applies and only to the extent that person's or organization's liability for the conduct of another "insured".

**2. The following is added to Paragraph B.5., Other Insurance of SECTION IV — BUSINESS AUTO CONDITIONS:**

Regardless of the provisions of paragraph a. and paragraph d. of this part 5. Other Insurance, this insurance is primary to and non-contributory with applicable other insurance under which an additional insured person or organization is the first named insured when the written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, requires this insurance to be primary and non-contributory.

**CA T4 74 02/16**

POLICY NUMBER: 810-5387B882-21-14

COMMERCIAL AUTO

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

### **BUSINESS AUTO EXTENSION ENDORSEMENT**

This endorsement modifies insurance provided under the following:

#### **BUSINESS AUTO COVERAGE FORM**

**GENERAL DESCRIPTION OF COVERAGE** — This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to the Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general cover-age description only. Limitations and exclusions may apply to these coverages. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- A. BROAD FORM NAMED INSURED
- B. BLANKET ADDITIONAL INSURED
- C. EMPLOYEE HIRED AUTO
- D. EMPLOYEES AS INSURED
- E. SUPPLEMENTARY PAYMENTS — INCREASED LIMITS
- F. HIRED AUTO — LIMITED WORLDWIDE COVERAGE — INDEMNITY BASIS
- G. WAIVER OF DEDUCTIBLE — GLASS
- H. HIRED AUTO PHYSICAL DAMAGE — LOSS OF USE — INCREASED LIMIT
- I. PHYSICAL DAMAGE — TRANSPORTATION EXPENSES — INCREASED LIMIT
- J. PERSONAL PROPERTY
- K. AIRBAGS
- L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS
- M. BLANKET WAIVER OF SUBROGATION
- N. UNINTENTIONAL ERRORS OR OMISSIONS

#### **PROVISIONS**

##### **A. BROAD FORM NAMED INSURED**

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II — COVERED AUTOS LIABILITY COVERAGE:

Any organization you newly acquire or form during the policy period over which you maintain 50% or more ownership interest and that is not separately insured for Business Auto Coverage. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

##### **B. BLANKET ADDITIONAL INSURED**

The following is added to Paragraph c. in A.1., Who Is An Insured, of SECTION 11 — COVERED AUTOS LIABILITY COVERAGE:

Any person or organization who is required under a written contract or agreement between you and that person or organization, that is signed and executed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to be named as an additional insured is an "insured" for Covered Autos Liability Coverage, but only for damages to which this insurance applies and only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Section 11.

##### **C. EMPLOYEE HIRED AUTO**

1. The following is added to Paragraph A.1., Who Is An Insured, of SECTION II — COVERED AUTOS LIABILITY COVERAGE:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.

2. The following replaces Paragraph b. in B.5., Other Insurance, of SECTION IV — BUSINESS AUTO CONDITIONS:

b. For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented by your "employee" under a contract in an "employee's" name, with your

## COMMERCIAL AUTO

permission, while performing duties related to the conduct of your business.  
However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

### D. EMPLOYEES AS INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II — COVERED AUTOS LIABILITY COVERAGE:

Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

### E. SUPPLEMENTARY PAYMENTS — INCREASED LIMITS

1. The following replaces Paragraph A.2.a.(2), of SECTION II — COVERED AUTOS LIABILITY COVERAGE:

(2) Up to \$3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.

2. The following replaces Paragraph A.2.a.(4), of SECTION II — COVERED AUTOS LIABILITY COVERAGE:

(4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

### F. HIRED AUTO — LIMITED WORLDWIDE COVERAGE — INDEMNITY BASIS

The following replaces Subparagraph (5) in Paragraph B.7., Policy Period, Coverage Territory, of SECTION IV — BUSINESS AUTO CONDITIONS:

(5) Anywhere in the world, except any country or jurisdiction while any trade sanction, embargo, or similar regulation imposed by the United States of America applies to and prohibits the transaction of business with or within such country or jurisdiction, for Covered Autos Liability Coverage for any covered "auto" that you lease, hire, rent or borrow without a driver for a period of 30 days or less and that is not an "auto" you lease, hire, rent or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited liability company) or members of their households.

(a) With respect to any claim made or "suit" brought outside the United States of America, the territories and possessions of the United States of America, Puerto Rico and Canada:

You must arrange to defend the "insured" against, and investigate or settle any such claim or "suit" and keep us advised of all proceedings and actions.

(ii) Neither you nor any other involved "insured" will make any settlement without our consent.

(iii) We may, at our discretion, participate in defending the "insured" against, or in the settlement of, any claim or "suit".

(iv) We will reimburse the "insured" for sums that the "insured" legally must pay as damages because of "bodily injury" or "property damage" to which this insurance applies, that the "insured" pays with our consent, but only up to the limit described in Paragraph C., Limits Of Insurance, of SECTION II — COVERED AUTOS LIABILITY COVERAGE.

(v) We will reimburse the "insured" for the reasonable expenses incurred with our consent for your investigation of such claims and your defense of the "insured" against any such "suit", but only up to and included within the limit described in Paragraph C., Limits Of Insurance, of SECTION II — COVERED AUTOS LIABILITY COVERAGE, and not in addition to such limit. Our duty to make such payments ends when we have used up the applicable limit of insurance in payments for damages, settlements or defense expenses.

(b) This insurance is excess over any valid and collectible other insurance available to the "insured" whether primary, excess, contingent or on any other basis.

(c) This insurance is not a substitute for required or compulsory insurance in any country outside the United States, its territories and possessions, Puerto Rico and Canada.

You agree to maintain all required or compulsory insurance in any such country up to the minimum limits required by local law. Your failure to comply with compulsory insurance requirements will not invalidate the coverage afforded by this policy, but we will only be liable to the same extent we would have been liable had you complied with the compulsory insurance requirements.

(d) It is understood that we are not an admitted or authorized insurer outside the United States of America, its territories and possessions, Puerto Rico and Canada. We assume no responsibility for the furnishing of certificates of insurance, or for compliance in any way with the laws of other countries relating to insurance.

### G. WAIVER OF DEDUCTIBLE — GLASS

The following is added to Paragraph D., Deductible, of SECTION III — PHYSICAL DAMAGE COVERAGE:

No deductible for a covered "auto" will apply to glass damage if the glass is repaired rather than replaced.

### H. HIRED AUTO PHYSICAL DAMAGE — LOSS OF USE — INCREASED LIMIT

The following replaces the last sentence of Paragraph A.4.b., Loss Of Use Expenses, of SECTION III — PHYSICAL DAMAGE COVERAGE:

However, the most we will pay for any expenses for loss of use is \$65 per day, to a maximum of \$750 for any one "accident".

**I. PHYSICAL DAMAGE — TRANSPORTATION EXPENSES — INCREASED LIMIT**

The following replaces the first sentence in Paragraph A.4.a., Transportation Expenses, of SECTION III — PHYSICAL DAMAGE COVERAGE:

We will pay up to \$50 per day to a maximum of \$1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

**J. PERSONAL PROPERTY**

The following is added to Paragraph A.4., Cover-age Extensions, of SECTION III — PHYSICAL DAMAGE COVERAGE: Personal Property

We will pay up to \$400 for "loss" to wearing ap-parel and other personal property which is:

- (1) Owned by an "insured"; and
- (2) In or on your covered "auto".

This coverage applies only in the event of a total theft of your covered "auto".

No deductibles apply to this Personal Property coverage.

**K. AIRBAGS**

The following is added to Paragraph B.3., Exclusions, of SECTION III — PHYSICAL DAMAGE COVERAGE:

Exclusion 3.a. does not apply to "loss" to one or more airbags in a covered "auto" you own that inflate due to a cause other than a cause of "loss" set forth in Paragraphs A.1.b. and A.1.c., but only:

- a. If that "auto" is a covered "auto" for Comprehensive Coverage under this policy;
- b. The airbags are not covered under any warranty; and
- c. The airbags were not intentionally inflated.

We will pay up to a maximum of \$1,000 for any one "loss".

**L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS**

The following is added to Paragraph A.2.a., of SECTION IV — BUSINESS AUTO CONDITIONS:

Your duty to give us or our authorized representative prompt notice of the "accident" or "loss" applies only when the "accident" or "loss" is known to:

- (a) You (if you are an individual);
- (b) A partner (if you are a partnership);
- (c) A member (if you are a limited liability company);
- (d) An executive officer, director or insurance manager (if you are a corporation or other organization); or
- (e) Any "employee" authorized by you to give notice of the "accident" or "loss".

**M. BLANKET WAIVER OF SUBROGATION**

The following replaces Paragraph A.5., Transfer Of Rights Of Recovery Against Others To Us, of SECTION IV — BUSINESS AUTO CONDITIONS:

**5. Transfer Of Rights Of Recovery Against Others To Us**

We waive any right of recovery we may have against any person or organization to the ex-tent required of you by a written contract signed and executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. The waiver applies only to the person or organization designated in such contract.

**N. UNINTENTIONAL ERRORS OR OMISSIONS**

The following is added to Paragraph B.2., Concealment, Misrepresentation, Or Fraud, of SECTION IV — BUSINESS AUTO CONDITIONS:

The unintentional omission of, or unintentional error in, any information given by you shall not prejudice your rights under this insurance. However this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.

**WORKERS COMPENSATION  
AND  
EMPLOYERS LIABILITY POLICY**

**POLICY NUMBER: UB-8K759731-21-14-G**

**ENDORSEMENT WC 00 03 13 (00) - 01**

**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS  
ENDORSEMENT**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

**SCHEDULE**

**DESIGNATED PERSON/ORGANIZATION:**

ANY PERSON OR ORGANIZATION FOR WHOM THE NAMED INSURED HAS AGREED BY WRITTEN CONTRACT TO FURNISH THIS WAIVER.

Policy Number: VMGP004346  
Insured Name: Fike Corporation  
Number: 58

VE 08 17 03 17

Effective Date: 9/30/2021

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**NOTICE OF CANCELLATION BY US TO ADDITIONAL  
INSURED WHEN REQUIRED BY WRITTEN CONTRACT**

This endorsement modifies insurance provided under the following:  
Commercial General Liability Coverage Part

Schedule
Number of Days: 30

The following is added to **Condition A. Cancellation** in **COMMON POLICY CONDITIONS**:

We will provide written notice of cancellation to an additional insured, for reasons other than:

- a. Cancellation by the first Named Insured;
- b. Nonrenewal for any reason;
- c. Nonpayment of premium; or
- d. Nonpayment of any deductible reimbursement,

stating when, not less than the number of days shown in the Schedule.

Cancellation will become effective subject to the following conditions:

- a. You are required by written contract to provide the additional insured with such notice; and
- b. You provide us with a list of the applicable additional insureds, including their complete name and mailing address, immediately after you execute the contracts that require notice of cancellation be sent to additional insureds.

**Failure to provide accurate and timely additional insured information will void our responsibility under this endorsement.**

Endorsement Premium: Included

All other terms and conditions of this Policy remain unchanged.

COMMERCIAL AUTO POLICY

ENDORSEMENT - CA T8 03 09 21

POLICY NUMBER: 810-5387B882-21-14

**\*\* THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY. \*\***

**DESIGNATED ENTITY-NOTICE OF CANCELLATION AND RENEWAL**

IT IS AGREED THAT:

IL T4 00 - DESIGNATED PERSON OR ORGANIZATION

PERSON OR ORGANIZATION:

ANY PERSON OR ORGANIZATION TO WHOM YOU HAVE AGREED IN A WRITTEN CONTRACT THAT NOTICE OF CANCELLATION OR MATERIAL LIMITATIONS OF THE POLICY WILL BE GIVEN,

BUT ONLY IF:

1. YOU SEND US A WRITTEN REQUEST TO PROVIDE SUCH NOTICE, INCLUDING THE NAME AND ADDRESS OF SUCH PERSON OR ORGANIZATION, AFTER THE FIRST NAME INSURED RECEIVES NOTICE FROM US OF THE CANCELLATION OR MATERIAL LIMITATION OF THIS POLICY; AND

2. WE RECEIVE SUCH WRITTEN REQUEST AT LEAST 14 DAYS BEFORE THE BEGINNING OF THE APPLICABLE NUMBER OF DAYS SHOWN IN THIS SCHEDULE.  
ADDRESS: THE ADDRESS FOR THAT PERSON OR ORGANIZATION INCLUDED IN SUCH WRITTEN REQUEST FROM YOU TO US.

EFFECTIVE DATE 9/30/2021  
EXPIRATION DATE 9/30/2022

POLICY NUMBER: 810-5387B882-21-14

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**DESIGNATED PERSON OR ORGANIZATION - NOTICE OF  
CANCELLATION OR NONRENEWAL PROVIDED BY US**

This endorsement modifies insurance provided under the following:

ALL COVERAGE PARTS INCLUDED IN THIS POLICY

SCHEDULE

CANCELLATION: Number of Days Notice: 30

WHEN WE DO NOT RENEW (Nonrenewal): Number of Days Notice: 30

PERSON OR ORGANIZATION:

SEE CA T8 03

ADDRESS:

SEE CA T8 03

**PROVISIONS**

A. If we cancel this policy for any legally permitted reason other than nonpayment of premium, and a number of days is shown for Cancellation in the Schedule above, we will mail notice of cancellation to the person or organization shown in such Schedule. We will mail such notice to the address shown in the Schedule above at least the number of days shown for Cancellation in such Schedule before the effective date of cancellation.

B. If we do not renew this policy for any legally permitted reason other than nonpayment of premium, and a number of days is shown for When We Do Not Renew (Nonrenewal) in the Schedule above, we will mail notice of nonrenewal to the person or organization shown in such Schedule. We will mail such notice to the address shown in the Schedule above at least the number of days shown for When We Do Not Renew (Nonrenewal) in such Schedule before the effective date of nonrenewal.

IL T4 00 05 19

**WORKERS COMPENSATION  
AND  
EMPLOYERS LIABILITY**

**ENDORSEMENT WC 99 06 11 ( A )**

**POLICY NUMBER: UB-8K759731-21-14-G /**

**NOTICE OF CANCELLATION**

Except for non-payment of premium by you, we agree that no cancellation or limitation of this policy shall become effective until the number of day's written notice specified in item 2 of the Schedule has been mailed to you and to the person or organization designated in item 1 of the Schedule at the address indicated.

**SCHEDULE**

1. Name: "Any person or organization to whom you have agreed in a written contract that notice of cancellation or material limitations of this policy will be given, but only if:

1. You send us a written request to provide such notice, including the name and address of such person or organization, after the first Named Insured receives notice from us of the cancellation or material limitation of this policy; and

2. We receive such written request at least 14 days before the beginning of the applicable number of days shown in this Schedule.

Address: The address for that person or organization included in such written request from you to us."

2. Number of Days Written Notice: 30 Additional Days

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

**WC 99 06 11 ( A )**

**4F: CONTRACT AGREEMENT**

THIS CONTRACT AGREEMENT (hereinafter "Agreement" or "Contract" or "Contract Agreement") is made and entered into for the above identified Project this 17 day of MAY, 2022, BY AND BETWEEN THE **ORANGE COUNTY FIRE AUTHORITY** (hereinafter "OCFA"), and FACILITIES PROTECTION SYSTEMS, as CONTRACTOR.

WITNESSETH that OCFA and CONTRACTOR have mutually agreed as follows:

[SECTIONS 1 – 40 are set forth in the Solicitation Information and Instructions to Bidders above.]

**41 – PROJECT MANUAL**

This Contract consists of the Project Manual. The Project Manual includes the following component parts thereof, each of which is a part of this Contract:

- (1) RO2537A - Notice Inviting Bids
- (2) RO2537A - Instructions to Bidders
- (3) RO2537A - Bid Documents
- (4) RO2537A - Contract Documents
- (5) RO2537A - Technical Specifications
- (6) Any and all addenda and other supplemental notices and agreements issued by OCFA clarifying, amending, or extending the work contemplated as may be required to ensure its completion in an acceptable manner

All of the above component documents of the Project Manual are complementary and Work required by one of the above documents shall be done as if required by all. In the event of conflict among the component documents of the Project Manual, the conflict shall be resolved as set forth in Section 52 of the General Conditions.

**42 - CONTRACT PRICE**

OCFA shall pay to Contractor as full consideration for the faithful performance of the Contract, the sum of THREE HUNDRED NINETEEN THOUSAND, NINE HUNDRED, NINETY-TWO DOLLARS (\$319,992). This sum is the total amount stipulated in the Bid. Payment shall be made as set forth in the General Conditions.

**43 – CONTRACTOR'S COMMITMENT TO FURNISH MATERIALS AND WORK**

For and in consideration of the payments and agreements to be made and performed by OCFA, CONTRACTOR agrees to furnish all materials and perform all work required for the above identified Project, and to fulfill all other obligations as set forth in the aforesaid Contract Documents.

**44 – CONTRACTOR'S COMMITMENT TO PRICES**

CONTRACTOR agrees to receive and accept the prices set forth in the Proposal as full compensation for furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid Contract Documents; and also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work.

44.1 - NO INCREASE IN BID COST DUE TO SUBSTITUTION OF SUBCONTRACTOR. In the event that a subcontractor is substituted in any manner for any reason, any increased cost related to such substitution shall be the sole responsibility of the Contractor. Such substitution shall not cause or result, directly or indirectly, in any increase in the bid price. This subsection shall not be construed to be prior consent to substitution of subcontractors, nor to authorize any substitution that is prohibited by the Subletting and Subcontracting Fair Practices Act.

#### 45 – PAYMENT TO CONTRACTOR

OCFA hereby promises and agrees to employ, and does hereby employ, CONTRACTOR to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in the Contract Documents.

#### 46 - WORKER'S COMPENSATION

CONTRACTOR acknowledges the provisions of the Labor Code requiring every employer to be insured against liability for workers' compensation, or to undertake self-insurance in accordance with the provisions of that Code, and certifies compliance with such provisions.

#### 47 – PRINCIPAL INTERESTS

CONTRACTOR affirms that the signatures, titles, and seals set forth hereinafter in execution of this Agreement represent all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest herein.

#### 48 – COMPLIANCE WITH FEDERAL IMMIGRATION AND NATIONALITY ACT

CONTRACTOR hereby represents and warrants that it will comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C. Section 1101, *et seq.*, as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should CONTRACTOR so employ such unauthorized aliens for the performance of any work and/or services under this Agreement, and should any liability or sanctions be imposed against OCFA for such use of unauthorized aliens, CONTRACTOR hereby agrees to defend and indemnify OCFA against any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, or penalties which arise out of or are related to such employment, together with any and all costs, including attorneys' fees, incurred by OCFA.

#### 49 – CERTIFICATION RE DEBARMENT

CONTRACTOR confirms that neither CONTRACTOR nor its principals are suspended, debarred, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts from United States (U.S.) federal government procurement or nonprocurement programs, or are listed in the List of Parties Excluded from Federal Procurement or Nonprocurement Programs (<http://www.sam.gov/>) issued by the U.S. General Services Administration. "Principals" means officers, directors, owners, partners, and persons having primary management or supervisory responsibilities within a business entity (e.g. general manager, plant manager, head of a subsidiary, division or business segment, and similar positions). CONTRACTOR will provide immediate written notification to OCFA if, at any time prior to award, CONTRACTOR learns that this certification was erroneous when submitted or has become erroneous by reason of changed circumstances. This certification is a material representation of fact upon which reliance will be placed when OCFA executes this Agreement. If it is later determined that

CONTRACTOR knowingly rendered an erroneous certification, in addition to the other remedies available to OCFA, OCFA may terminate this Agreement for default by CONTRACTOR.

#### 50 - INDEMNIFICATION

To the fullest extent permitted by law, CONTRACTOR (at CONTRACTOR's sole cost and expense) shall defend (with legal counsel acceptable to OCFA in OCFA's sole discretion), indemnify, protect, and hold harmless the INDEMNIFIED PARTIES and each of them against all CLAIMS which arise out of, pertain to, or are related to CONTRACTOR's performance under, or failure to perform under, the Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit CONTRACTOR's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, indemnify, protect, and hold harmless the INDEMNIFIED PARTIES shall not apply to the extent such CLAIMS arise from the sole negligence or willful misconduct of the OCFA.

As used herein, "INDEMNIFIED PARTIES" refers to OCFA and its appointed officials, officers, employees, agents, representatives, attorneys and volunteers.

As used in this Section 50, "CLAIMS" refers to any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, penalties, and expenses including legal costs, expert fees and attorney fees, including but not limited to CLAIMS arising from injuries to or death of persons (CONTRACTOR's employees included), or for damage to property, including property owned by OCFA.

#### 51 – COMPLIANCE WITH WORK RULES

CONTRACTOR shall be familiar with, observe, and comply at all times during the term of this Agreement with any work rules for contractors as may be established and promulgated by the OCFA Fire Chief, which work rules shall be additional terms and conditions for providing the work and services to the OCFA pursuant to this Agreement, as may be updated and/or amended from time to time at the sole discretion of the Fire Chief.

**[SIGNATURE PAGE FOLLOWS]**

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed the day and year first written.

ORANGE COUNTY FIRE AUTHORITY:

\_\_\_\_\_  
[NAME], CHAIR  
OCFA BOARD OF DIRECTORS

ATTEST:

\_\_\_\_\_  
MARIA D. HUIZAR,  
CLERK OF THE AUTHORITY

APPROVED AS TO FORM:

\_\_\_\_\_  
DAVID E. KENDIG  
GENERAL COUNSEL

CONTRACTOR:

Facilities Protection Systems  
\_\_\_\_\_  
(CORPORATION (NAME - TYPE))

BY: Jack Gerard

\_\_\_\_\_  
(PRINT)

  
\_\_\_\_\_  
(SIGNATURE)

General Manager

\_\_\_\_\_  
(TITLE)

BY: \_\_\_\_\_

(PRINT)

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
(TITLE)

NOTE:

SIGNATURES OF CORPORATE OFFICIALS MUST BE NOTARIZED, ATTACH JURAT.

**CALIFORNIA JURAT**

GOVERNMENT CODE § 8202

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of ORANGE



Place Notary Seal and/or Stamp Above

Subscribed and sworn to (or affirmed) before me on  
this 17 day of MAY, 2022, by  
Date Month Year

(1) JACK LTERARD

(and (2) \_\_\_\_\_),  
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to  
be the person(s) who appeared before me.

Signature \_\_\_\_\_  
Signature of Notary Public

**OPTIONAL**

Completing this information can deter alteration of the document or  
fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**4G: GENERAL CONDITIONS****ORANGE COUNTY FIRE AUTHORITY GENERAL CONDITIONS****51 Definitions**

As used in these General Conditions and in the Project Manual generally, the following terms have the meaning indicated:

Acts of God: An earthquake in excess of a magnitude of 3.5 on the Richter Scale or a tidal wave.

Addendum: A written or graphic instrument issued by Project Manager on behalf of the OCFA prior to the execution of the Contract which sets forth additions, deletions, or other revisions to the Project Manual or clarifications thereof.

Authority: The Orange County Fire Authority, a California Joint Powers Authority.

Board of Directors: The governing body of the Orange County Fire Authority.

Change Order: A written Modification executed by both parties (except in the event of a unilateral Change Order as herein provided) and consisting of additions, deletions or other changes to the Contract. A Change Order may be accompanied by and/or may identify additional or revised Drawings, sketches or other written instructions which become and form a part of the Project Manual by virtue of the executed Change Order. Except as otherwise provided in Subparagraph 1.1.5., a Change in the Work, or a change in the Contract Time or the Contract Sum shall only be approved by written Change Order.

Construction Contract or Contract: The written "Contract Agreement" covering the performance of the Work and the furnishing of labor, materials, tools, and equipment in the construction of the Work. The term "Construction Contract" also includes the Project Manual.

Contract Directive: A written document issued by the Project Manager and consisting of additions, deletions, clarifications, interpretations, or other written instructions issued by the Project Manager with respect to the performance of the Work or the activities of the Contractor on the Job Site or the property of OCFA. A Contract Directive can be a response to a Request for Information; however, all responses to Requests for Information need not be Contract Directives. A Contract Directive may become the subject of a Change Order only if such Directive involves a substantial change in the Work, or a change in the Contract Time or the Contract Amount, approved as a Change Order by the Project Manager.

Contractor's Construction Schedule: The detailed schedules, based on a critical path method ("CPM"), prepared by the Contractor, presenting an orderly and realistic plan for completion of the work required in the Project Manual. The Contractor's Construction Schedule shall also include the completion dates of the Milestones and a final proposal narrative as described in the Project Manual.

Contractor: The person or entity awarded the Contract to perform the work.

Day: All references to days in the Project Manual refer to calendar day unless otherwise specifically indicated.

Design Professional: Officers, employees, and consultants, the architectural and engineering firm, a party to the design-build entity responsible for the overall design of the Project.

Excusable Labor Dispute: Any labor dispute directed against an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, and which prevents Contractor from obtaining labor or materials necessary for the performance of the Work and that actually delays the performance of the Work; provided, however, that suitable substitute labor or materials are not reasonably obtainable.

Excusable Transportation Delay: Any labor dispute directed at an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, or other delay not within the reasonable control of the Contractor which prevents the transportation of necessary materials to the Project and actually delays the performance of Work; provided, however, that suitable substitute transportation for such materials is not reasonably available.

Fire Chief: The Fire Chief of the OCFA or the Fire Chief's Designee.

Laws: Each and every Federal, state, and local law, ordinance, code, rule, and regulation, as well as the lawful order or decree of any public or quasi-public authority and each of their respective inspectors or officials, including but not limited to all applicable building codes, bearing on or otherwise applicable to the Project. The term "Laws" also includes any and all conditions of approval of each and every entitlement or permit issued or approved by the Local Jurisdictions.

Local Jurisdictions: Any governmental agency with land use authority over the Project or part of the Project and each regulatory agency or authority with jurisdiction over the project, and their respective inspectors and representatives.

Modification or Contract Modification: (1) a written amendment to this Contract signed by both Parties; (2) a Change Order; or (3) a Contract Directive or other written interpretation or order issued as a response to a Request for Information or otherwise issued by the Project Manager pursuant to the terms of the Project Manual. Contractor acknowledges that the execution on its behalf of any such Modification by any one person with apparent authority shall be binding against the Contractor. A Modification may be made only after execution of the Contract. No Contract Directive or response to a Request for Information shall be construed as a Change Order or other Modification unless it expressly so states.

Non-Conformance Notice: A notice issued by the Project Manager documenting that the work or some portion thereof has not been performed in accordance with the requirements of the Project Manual.

Notice to Proceed: The written notice of the OCFA to the Contractor to commence work under the Contract.

OCFA: The Orange County Fire Authority, a California Joint Powers Authority.

Plans: The drawings, supplemental drawings, or reproductions thereof, the project plans, standard plans, profiles, cross-sections, and all graphic depictions, which show the location, character, dimensions, and details of the work to be performed and contained in the Project Manual.

Project: The Project is the performance, construction, installation, and completion of the entire scope of all work as described in the Contract Documents.

Project Manager: The person or persons designated by the OCFA to serve as the Project Manager of the project.

Project Manual: Defined in Section 41 of the Contract Agreement.

Provide: To furnish, fabricate, complete, deliver, install, and erect including all labor, materials, equipment, apparatus, appurtenances, and expenses, necessary to complete in place, ready for operation or use under the terms of the Project Manual.

Regulatory Agency – A Federal, State or local governmental agency that has regulatory jurisdiction over one or more aspects of the Project. (Examples may include, but are not limited to the Regional Water Quality Control Board, the California Coastal Commission, or the South Coast Air Quality Management Board.)

Related Work: Work performed by the OCFA or by any separate Contractor retained or hired by the OCFA, related to the completion of the Project and which is not required to be performed by the Contractor pursuant to this Contract and the Project Manual.

Requests for Information: A written request from the Contractor or one of the Subcontractors to the Project Manager seeking an interpretation or a clarification of some requirement of the Project Manual. Contractor shall clearly and concisely set forth in writing the issue for which Contractor seeks clarification or interpretation and why a response is needed from the Project Manager. Contractor shall set forth Contractor's interpretation or understanding of the Project Manual's requirements along with reasons why Contractor reached such an understanding. Responses from the Project Manager will not change any requirements of the Project Manual unless so noted in the Request for Information response.

Scheduled Completion Date: The number of days specified in the Construction Schedule for completion of the Project.

Site or Sites: The land on which the Project will be constructed as specifically described in the Project Manual.

Specifications: The directives, provisions, and requirements contained in Project Manual, however such may be labeled or otherwise described.

Subcontractor: A person or organization having a direct contract with the Contractor to perform any of the Work at the Site or to supply any materials, equipment, or supplies to be incorporated in, or utilized in connection with, the Work and as used herein shall include the Subcontractor's authorized representative.

Substantial Completion of the Project: occurs when all of the following are achieved: (1) substantial completion of all Work; and (2) suitable to meet the requirements for the issuance of a certificate of occupancy and receipt of all other required approvals of construction from the Local Jurisdictions; and (3) in strict accordance with the Project Manual; and (4) such that OCFA may fully utilize the Project for the use for which it is intended. Early occupation of the Project by OCFA does not constitute Substantial Completion of the Project if one or more of the four factors above has not yet been achieved. (See Section General Conditions, Section 74.)

Supplemental Agreements: The written agreements covering alterations, amendments, or extensions to the Construction Contract and include contract change orders.

Work: All the work specified, indicated, shown, or contemplated in the Construction Contract to construct the Project, including all alterations, amendments, or extensions thereto made by contract change order or other written orders of the Project Manager, including each activity, labor, task, service, acquisition, purchase, installation, or action of any kind required to be performed under the terms of this Contract and as specified in the Project Manual.

## 52 The Project Manual

- 52.1 The Project Manual is defined in **Section 41** of the Contract Agreement. The Contractor has examined carefully the site of the work contemplated, the plans and specifications, and the proposal and contract forms therefor. The submission of a bid shall be conclusive evidence that the Contractor has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished and as to the requirements of the proposal, plans, specifications and the Construction Contract. The Contractor warrants and represents that, in executing the Contract and undertaking the Work, it has not relied upon any oral inducement or representation by OCFA, Project Manager, or any of their officers or agents as to the nature of the Work, the Site, the Project conditions or otherwise.
- 52.2 All parts and provisions of the Project Manual are complementary, and what is required by any one shall be as binding as if required by all. If the Project Manual does not specifically allow the Contractor a choice as to quality or cost of items to be furnished, but could be interpreted to permit such choice, subject to confirmation or approval by Project Manager, they shall be construed to require the Contractor to provide the best quality. Words and abbreviations which have well-known technical or trade meanings are used in the Project Manual in accordance with such recognized meanings.
- 52.3 Where conflict exists within or between parts of the Project Manual, or between the Project Manual and either applicable industry standards or applicable codes, ordinances, or other legal requirements, the more stringent requirements shall apply; otherwise, the following order of precedence shall be used: the Construction Contract; the Special Conditions of the Contract for Construction; these General Conditions of the Construction Contract; the balance of the Project Manual, and the Drawings. If the Contractor is required to perform any extra or corrective Work to comply with the preceding sentence, it shall not be entitled to an increase in the Contract Sum or Contract Time, and no claim shall result from such compliance. Subject to confirmation or approval by OCFA, more detailed Drawings take precedence over less detailed scaled Drawings, figured dimensions on the Drawings take precedence over scaled dimensions, and otherwise noted matters on the drawings take highest precedence.
- 52.4 Drawings take precedence over graphic representations. Contractor shall bring or submit to the Project Manager any such conflicts as soon as Contractor or its Subcontractors discover or learn about such apparent conflicts in the form of an RFI.
- 52.5 The organization of the Specifications into divisions, sections, and articles, and the arrangement of Drawings, are not intended to influence the Contractor in its division of the Work among Subcontractors or its establishment of the extent of the Work to be performed by any trade.
- 52.6 The Contractor shall request in writing that Project Manager provide any interpretations or clarifications necessary for the proper execution, coordination or progress of the Work. Such interpretations shall be issued by Project Manager in writing for implementation by the Contractor. The Contractor shall make all such requests for interpretation or clarification in writing.

- 52.7 The Project Manual reflects conditions as they are believed to exist, but it is not intended or to be inferred that the conditions as shown thereon constitute a representation by or on behalf of Authority that such conditions actually exist. The Contractor shall inspect the Site and conduct any tests or surveys it deems necessary or desirable prior to the commencement of the Work and shall accept full responsibility for any loss sustained by it as a result of any variances between the conditions as shown on the Project Manual and the actual conditions revealed during the progress of the Work or otherwise. The Contract Sum shall in no event be increased by reason of any such variance unless otherwise specifically provided herein.
- 52.8 The Contractor shall develop and maintain current "as-built" Plans to be provided to Project Manager in accordance with the Construction Contract and Section 01770 of the Project Manual. Project Manager may inspect and copy such Plans at any time during the course of the Work.
- 52.9 The intent of the plans and specifications is to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Construction Contract. Where the plans or specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall provide all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the contract in a satisfactory and workmanlike manner.

### **53 Contract Bonds.**

Both the Faithful Performance Bond and the Material and Labor Bond shall each be for not less than one hundred percent (100%) of the total Contract amount. The Material and Labor Bond shall remain in force until thirty-five (35) days after the date of recordation of the Notice of Completion. The Faithful Performance Bond will be held for one year after the date of recordation of the Notice of Completion.

Prior to the acceptance of any bond, the OCFA shall verify that the surety is an admitted surety in the State of California. If requested by the OCFA, the Contractor shall provide other information specified in the Code of Civil Procedure Section 995.660 to enable the OCFA to verify the sufficiency of the bond.

Should any bond become insufficient, the Contractor shall correct the insufficiency within ten (10) calendar days after receiving notice from the OCFA. The Contractor shall provide the OCFA with evidence of the correction within ten (10) calendar days of said correction. Should any surety at any time be unsatisfactory to the OCFA, written notice will be given to the Contractor to that effect. No further payments shall be deemed due or will be payable under the Contract until Contractor submits an acceptable bond from a surety accepted by the OCFA. Changes to the work or extensions of time made pursuant to the Contract Agreement shall in no way release the Contractor or the surety from its obligations. Notice of such changes or extensions shall be waived by the surety.

### **54 OCFA AND OCFA'S REPRESENTATIVES**

- 54.1 The work will be under the general direction of the Fire Chief. The Project Manager is the authorized representative of the Fire Chief and has complete charge of the work, and shall exercise full control of the work, so far as it affects the interest of the OCFA.
- 54.2 The provisions in this General Conditions or elsewhere in the Contract Documents regarding approval or direction by the Fire Chief, the OCFA, the Board of Directors, or the Project Manager, or action taken pursuant thereto, are not intended to and shall not relieve the

Contractor of responsibility for the accomplishment of the work, either as regards sufficiency or the time of performance, except as expressly otherwise provided herein.

- 54.3 The Project Manager is the OCFA's exclusive representative and agent to the Contractor with respect to this Project during construction and until the completion of the Project. The OCFA's communications with the Contractor shall be exclusively through the Project Manager.
- 54.4 Project Manager shall at all times have access to the work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- 54.5 The OCFA shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and will not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents.
- 54.6 The OCFA will not be responsible for the failure of the Contractor to plan, schedule, and execute the work in accordance with the approved schedule or the failure of the Contractor to meet the Contract Documents completion dates or the failure of the Contractor to Schedule and coordinate the work of Contractor's own trades and subcontractors or to coordinate with other Separate Contractors.
- 54.7 The OCFA will not be responsible for the acts or omissions of the Contractor, or any subcontractor, or any Contractor's or subcontractor's agents or employees, or any other persons performing any of the work.
- 54.8 The Project Manager has the authority to disapprove or reject work on behalf of the OCFA when, in the Project Manager's opinion, the work does not conform to the Contract Documents. Whenever, in the Project Manager's reasonable opinion, it is considered necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, the Project Manager has the authority to require special inspection or testing of any work in accordance with the provisions of the Contract Documents whether or not such work shall then be fabricated, installed, or completed.
- 54.9 The Project Manager has the authority to require special inspection or testing of the work. However, neither the Project Manager's authority nor any decision made by the Project Manager in good faith whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the OCFA to the Contractor, or any subcontractor, or any of their agents, or employees, or any other person performing any portion of the work.
- 54.10 The Project Manager has the authority and discretion, but not the obligation, to call, schedule, and conduct job meetings to be attended by the Contractor and representatives of Contractor's subcontractors, to discuss such matters as safety, procedures, progress, problems, and scheduling.
- 54.11 The Project Manager will establish procedures to be followed for processing all submittals, Change Orders, Progress payments, other project reports, documentation, and test reports.
- 54.12 The Project Manager will review all requests for changes and shall implement the processing of Change Orders including application for extensions of time.
- 54.13 The Project Manager will review and process all Progress Payment Requests by the Contractor including Final Progress Payment Requests.

- 54.14 Nothing contained in the Project Manual shall create any contractual relationship between Project Manager and the Contractor.
- 54.15 Except as otherwise provided in the Project Manual, and until the Contractor is notified in writing to the contrary, all actions to be taken by, all approvals, notices, consent, directions and instructions to be given by, all notices and other matters to be delivered to, all determinations and decisions to be made by and, in general, all other action to be taken by, or given to, OCFA shall be taken, given and made by, or delivered or given to, Project Manager in the name of and on behalf of OCFA. Only those so designated are authorized to grant on behalf of OCFA any approval, consent or waiver with respect to the Project Manual or the Work, or to otherwise act for OCFA in any capacity whatsoever.
- 54.16 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Project Manual either by the activities or duties of the Project Manager in its administration of the Contract, including, without limitation, by any inspections or tests required, or by approvals or other similar action with regard to shop drawings or submittals (of any type), or by the activities of persons other than the Contractor with respect to the Project. Further, notwithstanding the fact that a dispute, controversy or other question may have arisen between the parties hereto relating to the execution or progress of the Work, the interpretation of the Project Manual, the payment of any monies, the delivery of any materials or any other matter whatsoever, the Contractor shall not be relieved of its obligations to pursue the Work diligently under the Project Manual pending the determination of such dispute, controversy, or other question.
- 54.17 OCFA reserves the right, but assumes no duty, to establish and enforce standards, and to change the same from time to time, for the safety and protection of persons and property, with which the Contractor shall comply, and to review the efficiency of all protective measures taken by the Contractor. The exercise of or failure to exercise any or all of these acts by OCFA shall not relieve the Contractor of its duties and responsibilities under the Project Manual, and OCFA shall not thereby assume, nor be deemed to have assumed, such duties or responsibilities of the Contractor.

## 55 **CONTRACTOR**

- 55.1 Composition: If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.
- 55.2 Examination of Plans, Specifications, and Site of Project: In addition to the representations and warranties contained in the Contract, the Contractor acknowledges that prior to execution of the Contract it has thoroughly reviewed and inspected the Project Manual, and satisfied itself regarding any error, inconsistency, discrepancy, ambiguity, omission, insufficiency of detail or explanation. OCFA shall not be responsible for any costs, nor liable to the Contractor for any damage, resulting from any such matter that the Contractor reasonably should have discovered. The Contractor shall perform no portion of the Work at any time which is not as provided or specified in the Project Manual or, where required, shop drawings, product data, or samples, for such portions bearing the Design Professional's appropriate action stamp. Work performed in violation of this provision shall be at the Contractor's risk
- 55.3 Contractor Certification: Contractor certifies and agrees that all the terms, conditions, and obligations of the Project Manual, the location and condition of the Site, and the conditions under which the work is to be performed have been thoroughly reviewed and investigated and Contractor enters into this Contract based upon Contractor's review and investigation of all such matters. Contractor certifies and agrees that Contractor is in no way relying upon

any opinions or representations of OCFA or the OCFA's officers, employees, agents, and consultants, including but not limited to, the Project Manager and the Design Professional.

- 55.4 Preparation of Documents: The Contractor shall carefully review and where appropriate or as may be required in the Scope of Work or at the direction of the Project Manager prepare drawings, specifications, and other instructions and shall at once report to Project Manager any error, inconsistency, or omission which Contractor may discover. Except as otherwise specifically provided hereinafter under warranties, the Contractor shall not be an agent for the OCFA.
- 55.5 Superintendence: The Contractor shall maintain on the site, during all construction activity, a competent superintendent and any necessary assistants, all satisfactory to the Project Manager. The superintendent shall not be changed except with the consent of the Project Manager, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ, in which case he/she shall be replaced immediately and in no case more than 24 hours with a superintendent acceptable to the Project Manager. The superintendent shall represent the Contractor and all directions given to the superintendent shall be as binding as if given to the Contractor. The Contractor shall provide Project Manager with complete work history profiles of management staff associated with this Project for Project Manager's review.
- 55.6 Licenses and Certificates: The Contractor represents and warrants that it has all necessary licenses and permits required by the laws of the United States, State of California, County of Orange, and any local jurisdiction, and all other appropriate governmental agencies, and agrees to maintain these licenses and permits in effect for the duration of this Contract. Further, Contractor warrants that its employees, agents, and contractors and subcontractors shall conduct themselves in compliance with all applicable laws and licensure requirements now in effect or as subsequently enacted or modified, as promulgated by any local, state, or federal governmental entities, including, without limitation, compliance with laws applicable to non-discrimination, harassment, and ethical behavior. Contractor shall notify the Project Manager immediately and in writing of its inability to obtain or maintain, irrespective of the pendency of any appeal, any such permits, licenses, approvals, certificates, waivers, and exemptions. Such inability shall be cause for termination of this Contract.
- 55.7 Materials and Equipment: The Contractor shall cause all materials and equipment to be delivered to the Site in accordance with any schedule or schedules therefore established from time to time and approved by Project Manager and, in any event, in a manner which will assure the timely progress and completion of the Work but will not encumber the Site unreasonably. Materials delivered to the Site for incorporation in the Work shall not be removed from the Site without the consent of Project Manager. The Contractor shall give, or shall require its Subcontractors to give, full and accurate quality, performance and delivery status reports, in a form satisfactory to Project Manager, regarding any materials and equipment, or such other data with respect thereto as may be requested by Project Manager, and shall obtain for Project Manager the written assurances of any manufacturer that its material or equipment is designed, and appropriate, for the use intended. The Contractor warrants to OCFA that all materials and equipment furnished under this Contract shall be new unless otherwise specified in the Project Manual and that all Work shall be of good quality, free from faults and defects and in conformance with the Project Manual. All Work not so conforming to these standards may be considered defective. All warranties and guarantees from Subcontractors (including, without limitation, manufacturers) shall be assignable to OCFA regardless of whether it is so stated therein, and the Contractor agrees to assign all such warranties and guarantees to the OCFA.

- 55.8 Completion Schedule: The Contractor shall prepare and submit, for Project Manager's approval, a Construction Schedule for the work which shall provide for expeditious and practicable execution of the work for completion within the Contract Time. This schedule shall be coordinated with the entire Project Construction Schedule to the extent required by the Contract Documents.
- 55.9 Reports by Contractor: Daily reports of the site and construction activities shall be provided to Project Manager. The reports shall follow the OCFA approved format including, but not limited to, information regarding trades at work, manpower, weather conditions, construction progress, and solutions to problems.
- 55.10 Contractor Responsibility: The Contractor shall supervise and direct the Work, using its best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, coordination, scheduling and procedures, for all cleanup and for all safety and weather precautions and programs, in connection with the Work. Contractor shall be solely responsible for the work and the Project as described in the Contract Documents. Contractor shall have complete control over the construction methods, techniques, and procedures, except as may be specifically provided in the Contract Documents. Contractor shall, at its sole cost and expense, perform all labor and services and furnish all material, tools, appliances, and equipment necessary and proper for performing and completing the Work of the Project in strict compliance with the terms and conditions of the Project Manual. Contractor shall provide all labor, materials, and equipment in conformity with the Project Manual and other directions as may be provided by the Project Manager. Contractor shall, at its sole cost and expense, prepare and fully comply with all provisions of the Quality Assurance/Quality Control Program as provided in the Project Manual.
- 55.11 Ongoing Oversight: Contractor shall keep itself continuously informed of the progress of the Work and the Related Work and will attend all meetings related to the Work and the Related Work as specified in the Project Manual and as identified in the Contractor's Construction Schedule. Contractor further agrees to work in a prompt, efficient, expert, and diligent manner and to furnish sufficient manpower to complete the Work in accordance with the Contractor's Construction Schedule. Contractor shall prosecute the Work diligently to completion. Contractor shall be responsible for the coordination and scheduling of all Work and the Related Work.
- 55.12 Ongoing Self-Inspection: Contractor shall, at its sole cost and expense, inspect its work to determine strict conformance to the requirements of the Project Manual. (This obligation of the Contractor is in addition to the Contractor's obligations to make repairs or to remedy deficient or unacceptable work as may be required under this Contract or any other provision of the Project Manual.) If some of the work performed on the Project does not comply with the requirements of the Project Manual, Contractor shall repair or replace such defective work at its sole cost and expense. Contractor shall gain no protection or right of reliance on the Project Manager's or Fire Chief's inspection of the work. If it is determined that the Project Manager or Fire Chief inspected work and failed to call defects or non-conforming items to the attention of Contractor, the OCFA shall not be deemed to have waived the requirements of the Project Manual or accepted the work.
- 55.13 Monitoring and Compliance: The Project Manager shall, at all times, have safe access to the Project site and its related work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of Contract Documents. All work done and all materials furnished shall be subject to Project Manager inspection. In the event the Project Manager finds or determines that the work or material are not in accordance with

the requirements and the intentions of the Contract Documents, the Project Manager shall issue a Non-Conformance Notice. Upon receipt of a Non-Conformance Notice the Contractor shall provide a written Response to the Non-Conformance Notice within five (5) working days after receipt of the Notice. The Contractor's response shall detail either (a) why Contractor believes that the work was performed in accordance with the Project Manual or (b) what corrective action Contractor intends to take, at its sole cost and expense, to correct the non-conforming work. If Contractor disputes issuance of the Notice, the Project Manager has five- (5) working days in which to respond by either (a) withdrawing the Notice of Non-Conformance or (b) directing the Contractor to correct the work. Such determination of the Project Manager shall be final and conclusive of the matter. If directed to correct the work, Contractor shall do so within five (5) working days after receipt of such direction from the Project Manager, or such other time as may be agreed in writing from the Project Manager.

- 55.14 Inspectors: In addition to the Project Manager, inspectors of Local Jurisdictions are authorized to enforce strict compliance with the terms and conditions of the Contract and the Project Manual and to determine the acceptability of materials and workmanship. Inspectors are authorized to reject work or materials if they determine that such work or materials do not conform to the requirements of the Contract and the Project Manual. Whenever an inspector determines that some work installed by the Contractor, or any Subcontractor or supplier at any tier does not conform to the requirements of the Contract, a Notice of Non-Conformance will be issued to record this determination. In the event of a dispute between the Contractor and an inspector concerning non-conforming work, the Contractor shall pursue the issue in accordance with the requirements of Subsection 13 above this Section 55 of this contract, relating to Non-Conforming Work. Inspectors other than the Project Manager are not authorized to issue or direct changes to the requirements of the Contract. In the event that the Contractor believes some direction given by an inspector does constitute a change to the requirements of the Contract, Contractor shall within two (2) days provide written notice to the Project Manager detailing the direction given, by whom, when and under what circumstances, and why the Contractor believes that such direction constitutes a change to the requirements of the Contract. Failure to provide such written notice to the Project Manager within the specified timeframe shall constitute a waiver of claim with respect to the direction received by the Contractor.
- 55.15 Remedy and Repair of Work: The inspection of the work or materials shall not relieve the Contractor of any of the Contractor's obligations to fulfill the Construction Contract as prescribed. Work and materials not meeting the requirements shall be made good, and unsuitable work or materials may be rejected, notwithstanding that the work or materials have been previously inspected by the Project Manager or that payment therefor has been included in a progress payment. All work which has been rejected as indicated in a Non-Conformance Notice shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed to the Contractor for the removal, replacement or remedial work. Payment shall not be made on any portion of the work for which a Non-Conformance Notice has been issued and the work not corrected to the satisfaction of the Project Manager.
- 55.16 Failure to Comply: Upon failure of the Contractor to comply promptly with any order of the Project Manager made under Paragraphs L, M, N, and O above, the Project Manager, with the approval of the Fire Chief, may cause rejected or unauthorized work to be remedied, removed, or replaced, and to deduct the costs from any moneys due or to become due the Contractor.
- 55.17 Contactor Liabilities: The Contractor shall be responsible to OCFA for the acts and omissions of its employees. The Contractor shall be held responsible for all damages

resulting from its employees or its subcontractors or agents from all errors, omissions, or negligence in the performance of the work and completion of the Project.

- 55.18 **Deficiencies in Contract Documents:** Contractor covenants and agrees that Contractor, its employees, agents, subcontractors, and suppliers have an affirmative duty and obligation to promptly disclose to the Project Manager any deficiency, error, or inconsistency in the Contract Documents and any of the plans and specifications contained therein, so that Project Manager, the OCFA, and the Design Professional can affect any required or necessary modification or clarification thereof in a timely and cost effective manner. In this regard and in furtherance of the Contractor's obligations, the Contractor agrees not to take advantage of errors or omissions in the Project Manual. It is the duty of the Contractor to promptly notify the Project Manager in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified methods and fails to promptly notify the Project Manager in writing of this belief, the Contractor thereby waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against the OCFA, or in any subsequent arbitration or settlement conference between the OCFA and the Contractor. The Project Manager, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after the Contractor becomes aware that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 55.19 **Ongoing Duty to Disclose:** If the Contractor, either before commencing work or in the course of the work, finds any discrepancy within the Project Manual, or between the Project Manual and the physical conditions at the Site, or finds an error or omission on the Plans, Specifications, or in any survey, the Contractor shall promptly notify the Project Manager in writing of such discrepancy, error, or omission. If the Contractor observes that the Project Manual is at variance with any applicable law, regulation, order, or decree, the Contractor shall promptly notify the Project Manager in writing of such conflict. The Project Manager, on receipt of such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor after the discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, omission, or conflict will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 55.20 **Duty to Coordinate:** The Contractor shall be responsible for coordinating any work carried on at the Site by other parties or by the OCFA, including the Related Work, simultaneously with the Work. The compensation to be paid to Contractor under this Contract includes any costs which the Contractor may incur as a result of coordinating the Work with such other work, including the Related Work. In no case shall the Contractor be entitled to extra compensation from the OCFA for damages suffered as a result of work being carried on at the Site by other parties or the OCFA simultaneously with the construction work for this Project. Nevertheless, if such work results in a delay to the Contractor's work beyond reasonable time allocations afforded to such work and Related Work identified on the Contractor's Construction Schedule as approved by the Project Manager, the Contractor may be eligible for an extension of time as specified in this Contract.
- 55.21 **Failure to Pay for Labor or Materials:** If Contractor fails to pay for labor or materials when due, OCFA may settle such claims by making demand upon the surety to this Agreement. In the event of the failure or refusal of the surety to satisfy said claims, OCFA may settle any claims directly and deduct the amount of payments from the Contract price and any amounts

due to Contractor. In the event OCFA receives a stop notice from any laborer or material supplier alleging non-payment by Contractor, OCFA shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.

- 55.22 Compliance with Laws: The Contractor shall, at its cost and expense, comply with all Laws, as any may now exist or be hereafter changed or added. It shall be the responsibility of the Contractor to familiarize itself with all such Laws, and any performance of the Work by or on behalf of the Contractor which is not in compliance with the Laws shall be at the Contractor's sole risk and expense. The Contractor shall notify OCFA prior to execution of the Contract (and, without limiting the continuous duty of the Contractor to advise the OCFA) of any instances where the Contract Documents are, or where the Contractor believes the Contract Documents are, not in compliance with the Laws.
- 55.23 Ongoing Responsibility: Any work or material not specified in the Project Manual but which by fair implication, in the judgment of the Project Manager, should be included therein, shall be accomplished, furnished, or provided by the Contractor as part of the Project Manual.
- 55.24 Taxes, Fees, and Licenses: The Contractor shall pay, or cause to be paid, all import duties and sales, consumer, use, excise, value added and ad valorem taxes required to be paid in connection with the Work or upon materials, tools or equipment brought to the Site or used in the Work. If any of the foregoing taxes are not paid in a timely manner, OCFA may withhold the amount of any such taxes from any amounts owing to the Contractor under the Project Manual, submit the amount so withheld to the appropriate taxing authority on behalf of the Contractor or its Subcontractors or Sub-subcontractors and offset said amount against the Contract Sum. The Contractor shall secure and pay for all governmental fees, permits and licenses which OCFA is not specifically required to provide and pay for under the Project Manual.
- 55.25 Tests: If the Project Manual, or any laws, ordinances, rules, regulations, or any orders or decrees of any public or quasi-public authority having jurisdiction, or common practice in the industry, require or dictate that the Contractor have any portion of the Work inspected, tested or approved, the Contractor shall advise Project Manager in a timely manner (in writing, if practicable) of its readiness and of the date arranged so that Project Manager may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests and approvals except as otherwise specified. Project Manager may require any special inspection, testing or approval of the Work not included under above, or any more stringent inspection, testing or approval thereof, in which event it shall instruct the Contractor to order such inspection, testing or approval, and the Contractor shall advise Project Manager in a timely manner (in writing, if practicable). If such inspection or testing reveals any failure of the Work or the performance thereof to comply with the more stringent of: (a) the requirements of the Project Manual; (b) applicable industry standards; or (c) applicable laws, ordinances, codes, rules, regulations or orders or decrees of any public or quasi-public authority having jurisdiction, or reveals any defect in the Work, the Contractor shall bear the costs of such inspection or testing and all costs to correct the Work to the satisfaction of Project Manager, which, if incurred by OCFA, may be offset by OCFA against any amounts then or thereafter due to the Contractor. If such inspection or testing proves that the Work was performed properly, OCFA shall bear the costs of such inspection or testing. Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by it to the Project Manager.
- 55.26 General: The duties and responsibilities of the Contractor as set forth in this Section 55 are in addition to, and not in lieu of, other duties and responsibilities of the Contractor enumerated elsewhere in the Project Manual.

**56 - RESPONSIBILITIES OF THE CONTRACTOR****56.1 CONTRACTOR'S EQUIPMENT AND FACILITIES.****56.1.1 General.**

**56.1.1.1 Conduct of the Work.** The Contractor shall behave, at all times, in a courteous, professional manner. While on site, or entering or exiting the site, there shall be no extraneous activity that might cause disruption to the Project site, surrounding areas, or residents. Failure to comply may result in the suspension of work, or removal of contractor's staff from the Project.

**56.1.1.2. Noise Levels.** A noise level limit of 86 dbA Max at a distance of fifty feet (50') shall apply to all construction equipment on or related to the job whether owned by the Contractor or not. The use of excessively loud warning signals shall be avoided except in those cases required for the protection of personnel. In addition to those requirements, all work shall comply with all applicable noise ordinances at all times.

**56.2 COOPERATION AND COLLATERAL WORK.**

The Contractor is advised as to the possibility of other construction projects within the proposed construction zone by the OCFA, other governing agencies or private enterprises. In the event of such projects, the Contractor shall coordinate with the applicable parties as to the extent of any time required to complete their work and shall schedule its work and conduct its operations so as to permit access and time as required for the concurrent work. The Contractor shall immediately notify the Engineer in the event of a delay in scheduling caused solely by this concurrent work. Payment for the above, if any, shall be deemed as included in the items of work as shown on the proposal bid sheet and no additional compensation will be allowed.

**56.3 PROJECT SITE MAINTENANCE.****56.3.1. Cleanup and Dust Control.**

The Contractor shall keep adjacent properties clean and free of rubbish and debris in a timely manner as necessary and/or as directed by the Engineer.

The Contractor shall implement effective handling, storage, usage, and disposal practices to control material pollution and manage waste and nonstormwater at the job site before they come in contact with storm drain systems and receiving waters.

**56.3.1.1 Construction Cleaning**

The Contractor shall:

- (a) Initiate and maintain a daily program to prevent accumulation of debris on-site and along access roads and haul routes. Maintain areas under Contractor's control free of waste materials, debris, weeds 6" high, and rubbish. Maintain site in a clean and orderly condition.
- (b) Provide suitable covered containers for deposit of debris and rubbish. Dispose of accumulation of extraneous materials, prohibit overloading of trucks to prevent spillages on access and haul routes and provide daily inspection of haul routes to enforce requirements.
- (c) The Contractor shall supply self-loading motorized street sweepers equipped with a

functional water spray system as part of his daily program.

- (d) Schedule at a minimum, weekly collection and disposal of debris. Provide additional collections and disposals of debris whenever the weekly schedule is inadequate to prevent accumulation.

The Contractor shall remove debris from closed or remote spaces prior to closing the space, control cleaning operations to minimize dust and other particulates and immediately remove clay and earth which adhere to the paved surface of the roadway. Remove by hand scraping, washing, sweeping, and/or other method(s) which will leave a clean non-skid surface without impairing, injuring or loosening the surface.

The Contractor is required to control dust throughout the life of the Contract. The control may be required by job conditions or Engineer. In any case, the Contractor shall use water or other effective means to control the dust. No chemical agents may be used without written authorization from the Agency. The Contractor shall be solely responsible for safety problems, accidents or any other complications or claims arising from inadequate dust control.

No separate payment will be made for any work performed or material used to control dust resulting from the Contractor's performance of the work, or by public traffic, either inside or outside the right-of-way. Full compensation for such dust control will be considered as included in the price paid for the various items of work involved.

No separate payment will be made for any work performed or material used in cleaning the Project. Full compensation for such cleaning shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefore.

## **57 Subcontracts**

57.1 Licensed Subcontractors: The Contractor shall comply with the provisions of the Subletting and Subcontracting Fair Practices Act (the "Act") (Public Contracts Code Section 4100 et seq.). The Contractor shall not terminate the employment of a Subcontractor or Sub-subcontractor engaged in the Work prior to the expiration of that subcontract without complying with the Act. The Contractor shall in all respects select the subcontractors in the manner provided under law. Each subcontractor selected for the work shall be licensed in the State of California in the subcontractor's particular field.

57.2 Transactions: Transactions with subcontractors shall be made through the Contractor. OCFA may assign to the Contractor any contracts or purchase orders entered into between OCFA and any other person or organization in any way related to the Project or the Work, at any time, in which event the Contractor shall assume full responsibility for such person or organization and its portion of the Work as if such person or organization was originally a Subcontractor. Such assignment may occur by Change Order or other Modification to the Contract, and any increase in the Contract Sum shall be governed by Section 01200 of the Project Manual.

57.3 Writing: All subcontracts and sub-subcontracts shall be in writing. Each subcontract and sub-subcontract shall contain a reference to this Contract and shall incorporate the terms and conditions hereof to the full extent applicable to the portion of the Work covered thereby. Each Subcontractor must agree, for the benefit of OCFA, to be bound by, and to require each of its Subcontractors to be bound by, such terms and conditions to the full extent applicable to its portion of the Work.

57.4 Responsibility: The Contractor shall be fully responsible to the OCFA for the acts and omissions of subcontractors and all persons directly or indirectly employed by them as Contractor is for the acts and omissions of Contractor and of persons directly or indirectly employed by

Contractor and shall pay each subcontractor promptly the amount allowed Contractor on account of such subcontractor's work to the extent of such subcontractor's interest therein.

- 57.5 Incompetent or Disorderly Conduct: If any Subcontractor or person employed by the Contractor shall appear to the Project Manager to be incompetent or to act in a disorderly or improper manner, such person shall be discharged immediately on the request of the Project Manager, and that person shall not again be employed on the work.
- 57.6 Mandatory Subcontract Terms: Each subcontract shall provide for its termination by the Contractor if, in Project Manager's opinion, the Subcontractor fails to comply with the requirements of the Project Manual insofar as the same may be applicable to its portion of the Work; and each Subcontractor shall be required to insert a similar provision in each of its sub-subcontracts. In the event of any such failure by a Subcontractor or Sub-subcontractor to comply with the requirements of the Project Manual, such Subcontractor or Sub-subcontractor, as the case may be, shall be removed immediately from the Work and shall not again be employed on the Work. The Contractor shall be responsible for all costs and expenses arising out of, and shall indemnify OCFA on account of, any such failure by a Subcontractor or Sub-subcontractor (specifically including, without limitation, a failure to pay for labor (including applicable fringe benefits) or materials).
- 57.8 Contractual Relations: Nothing contained in this Contract shall create any contractual relationship between OCFA or the Project Manager or the Design Professional on the one hand, and a subcontractor on the other.

## **58 Drawings And Specifications**

- 58.1 Checking: The Contractor, as part of this Contract, shall agree not to take advantage of errors or omissions in the Contract Documents, including any plans and specifications thereto. It is the duty of the Contractor to promptly notify the Project Manager in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified methods and fails to promptly notify the Project Manager in writing of this belief, the Contractor thereby waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against the OCFA, or in any subsequent arbitration or settlement conference between the OCFA and the Contractor. The Project Manager, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after the Contractor becomes aware that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 58.2 Discrepancy in Contract Documents: If the Contractor, either before commencing work or in the course of the work, finds any discrepancy within the Contract Documents, or between the Contract Documents and the physical conditions at the Project site, or finds an error or omission on the plans, specifications, or in any survey, the Contractor shall promptly notify the Project Manager in writing of such discrepancy, error, or omission. If the Contractor observes that the Contract Documents is at variance with any applicable law, regulation, order, or decree, the Contractor shall promptly notify the Project Manager in writing of such conflict. The Project Manager, on receipt of such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor after the discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, omission, or conflict will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.

- 58.3 Implication: Any work or material not specified in the Contract Documents but which by fair implication, in the judgment of the Project Manager, should be included therein, shall be accomplished, furnished, or provided by the Contractor as part of the Contract Documents.
- 58.4 Precedence: Figures marked on drawings shall in general be followed in reference to scale measurements. Large scale drawings shall in general govern small scale drawings. Specifications and schedules shall govern over drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors. When measurements are affected by conditions already established, the Contractor shall take measurements notwithstanding the giving of scale or figure dimensions in the drawings. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to the Project Manager, without whose decision Contractor shall not adjust said discrepancy save only at Contractor's own risk and expense. The decision of the Project Manager shall be final.
- 58.5 Shop Drawings: The Contractor shall establish, implement, and supervise the submission of shop drawings and other submittals (of any type) in accordance with the Schedule and any Milestones. The Contractor shall note any variances between any such shop drawings or other submittals and the Project Manual for the benefit of OCFA at the time of submission. No approval or other similar action regarding any such submission shall be binding in any way upon OCFA.
- 58.6 Drawings and Specifications at the Site: The Contractor shall keep available at the site for ready reference a complete set of all contract drawings, details, supplementary drawings and approved shop drawings, a complete copy of the specifications with all addenda, bulletins, amendments, and copies of Project correspondence. The Contractor shall maintain on the site a complete "as built" record set of prints. In addition, the Contractor shall keep on the site as required a copy of each manufacturer's current printed recommendations. Contractor shall also submit a copy to the Project Manager.
- 58.7 Deviations: Deviations from the drawings and the dimensions therein given, whether or not error is believed to exist, shall be made only after written authority is obtained from the Project Manager.

## **59 Divisions Of The Specifications**

- 59.1 For convenience, the work as described in the Contract Documents are arranged in several divisions and sections, but such separations shall not be considered as the limits of the work required for any subcontract or trade: the terms and conditions of such limitations are wholly between the Contractor and his subcontractors, and the OCFA will not be responsible for any division of work by subcontractors. The Contractor will be solely responsible for all subcontract arrangements of work regardless of the location of provisions in the specifications.
- 59.2 Schedules of work included in the sections, where listed, are given for convenience only, and shall not be considered as a comprehensive list of items or work necessary to complete the work of any section.
- 59.3 Where devices or items or parts thereof are referred to in the singular, it is intended that such reference shall apply to as many soon devices, items, or parts as are required to properly complete the work.

- 59.4 Each section of the specifications is covered by applicable requirements of the Contract Documents and other related sections as if therein written.

## **60 Site Conditions**

- 60.1 Existing Site Conditions: Information respecting the site of the work given in drawings or specifications has been obtained by OCFA's representatives and is believed to be reasonably correct, but the OCFA does not warrant either the completeness or accuracy of such information, and it is the responsibility of the Contractor to verify all such information.
- 60.2 Changed Conditions: The Contractor shall promptly, and before such conditions are disturbed, notify the Project Manager in writing of:
- 60.2.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or
- 60.2.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents. The Project Manager shall promptly investigate the conditions, and if, as a result, finds that such conditions do so materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for performance an equitable adjustment shall be made and the Contract Documents modified in writing accordingly. Any claim of the Contractor for adjustment hereunder shall not be allowed unless Contractor has given notice as above required.
- 60.3 Public Utility Facilities on Project Site: Pursuant to Government Code, Section 4215, the Contractor shall be compensated for the costs of locating and repairing damage to public utility facilities on the Project site which was not due to failure of Contractor to exercise reasonable care, and removing or relocating main or trunk line utility facilities located on the Project site, if such work is required in the Contract Documents or the Project Manager. Such compensation shall also cover the cost of Contractor's equipment necessarily idled during such work. This provision shall not be deemed to require compensation when the presence of existing service laterals or appurtenances can be inferred from the presence of visible facilities such as buildings, meter and junction boxes, on or adjacent to the construction site. If the Contractor discovers such unidentified utility facilities during construction, Contractor shall immediately notify the Project Manager and the utility in writing.
- 60.4 Space at Site: The Contractor shall be allowed reasonable space at the site of the work as available and access thereto and shall confine Contractor operations to the space assigned. The work shall be done without interference with the ordinary use of the fire station. The Contractor shall cooperate with other Contractors of the OCFA and shall not commit or permit any act which will interfere with the performance of work by any other Contractor or employees of the OCFA whether at the site or not.

## **61 Conditions Affecting The Work**

The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve Contractor from responsibility for successfully performing the work without additional expense to the OCFA. The OCFA assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of the Contract Documents, unless such understanding or representations by the OCFA are expressly stated in the Contract Documents.

**62 OCFA's Property On Site**

All fixtures, facilities, equipment, vehicles, furniture, and all other personal property of the OCFA located at the job site which are removed in the course of construction of the Project remain the property of the OCFA unless express provision to the contrary is made in the Contract Documents, and the Contractor shall exercise reasonable care to prevent loss or damage to said property and shall deliver promptly such property to the place designated by the Project Manager.

**63 Protection**

- 63.1 The Contractor shall, throughout the performance of the Work, maintain adequate and continuous protection of all Work, all material and supplies, and temporary facilities against loss or damage from whatever cause, shall protect the property of OCFA and third parties from loss or damage from whatever cause, and shall comply with the requirements of OCFA and its insurers and with all applicable laws, codes, rules and regulations with respect to the prevention of loss or damage to property as a result of fire or other hazards.
- 63.2 The Project Manager may, but shall not be required to, make periodic patrols of the Site as a part of its normal security and safety program. In such event, however, the Contractor shall not be relieved of its aforesaid responsibilities and OCFA shall not assume same, nor shall it be deemed to have assumed, any responsibility otherwise imposed upon the Contractor by the Contract.
- 63.3 Until final acceptance of the Work by OCFA, the Contractor shall have full and complete charge and care of and, except as otherwise provided in this Subparagraph, shall bear all risk of loss of, and injury or damage to, the Work or any portion thereof (specifically including OCFA-furnished supplies, equipment or other items to be utilized in connection with, or incorporated in, the Work), materials, equipment, and supplies, from any cause whatsoever, subject to the limitations set forth below.
- 63.4 The Contractor shall rebuild, repair, restore, replace, and make good all losses of, and injuries or damages to, the Work or any portion thereof (specifically including OCFA-supplied, equipment or other items to be utilized in connection with, or incorporated in, the Work), material, equipment, and supplies before final acceptance of the Work. Such rebuilding, repair, replacement, or restoration shall be at the Contractor's sole cost and expense.
- 63.5 Contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. Contractor shall comply with the provisions of the Construction Safety Orders issued by the State Division of Occupational Safety & Health. Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction thereof which theretofore may have been accepted.
- 63.6 The Contractor shall maintain continuously adequate protection of all work from damage and shall protect the OCFA's property from injury or loss arising in connection with the Contract Documents. Contractor shall make good any such damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or representatives of the OCFA. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents, and shall maintain reasonable security of the site at all times, if necessary. Contractor shall limit visitors to the site to those necessary for construction and inspections. Visitors for other purposes shall be referred to the Project Manager. Contractor's and subcontractors' employees shall possess means of identification at all times as required by the Project Manager while on the job site.

- 63.7 In an emergency affecting the safety of life or of the work or of adjoining property the Contractor, without special instruction or authorization from the OCFA, is hereby permitted to act at Contractor's discretion to prevent such threatened loss or injury. Contractor shall so act if directed or instructed by the Project Manager. Any dispute as to compensation claimed by the Contractor on account of emergency work shall be determined by agreement as hereinafter set forth.
- 63.8 The Project Manager may notify the Contractor of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately correct such conditions. Such notices, when delivered to the Contractor or Contractor's representative at the site of the work, shall be deemed sufficient for said purpose. Failure of receipt of such notice from the Project Manager shall not relieve the Contractor of responsibility.
- 63.9 If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop order shall be made the subject of a claim for extension of time or for excess costs or damages to the Contractor. The Contractor will be responsible for ensuring that his subcontractors comply with the provisions of this Section 63.
- 63.10 Surface or Subsurface water or other fluid shall not be permitted to accumulate in excavations or under the structures. Should such conditions develop or be encountered, the water or other fluid shall be controlled and suitably disposed of by means of temporary pumps, piping, drainage lines and ditches, dams or other methods approved in writing by OCFA. The proposed location and coordination of temporary channels and conduits conducting accumulated water from the Site shall be submitted to Project Manager for its prior written approval. All such work shall be done at the sole expense of the Contractor, and in accordance with the Federal National Pollutant Discharge Elimination System (NPDES) and the NPDES General Construction Permit which includes the Contractor's Storm Water Pollution Prevention Plan (SWPPP) pursuant thereto.

#### **64 Payments**

The OCFA shall make payments upon the contract price in accordance with the Contract Documents.

#### **65 Assignment**

The Contract Documents, and any portion thereof, may not be assigned by the Contractor. Claims for monies due or to become due the Contractor from the OCFA under the Contract Documents may be assigned, with the written consent of the Board of Directors, to a bank, trust company, or other financing institution and may thereafter be further assigned or reassigned to any such institution. To effect such assignments, the Contractor, or Contractor's assignee, shall submit a written request to the Board of Directors enclosing a letter from the proposed assignee indicating that it will accept such assignment. Any attempted assignment contrary to provisions of this paragraph shall be void.

#### **66 Other Contracts**

The Board of Directors may undertake or award other contracts for additional work or other work, and the Contractor shall fully cooperate with such other contractors and OCFA employees and carefully fit Contractor's own work to such additional work as may be directed by the Project Manager. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by OCFA employees.

**67 Warranty / Warranty Work**

- 67.1 One-Year Warranty: The Contractor agrees to maintain and guarantees for a period of twelve (12) months from the date of the issuance of the certificate of acceptance of the Project or the issuance of a temporary certificate of occupancy as requested by the Fire Chief in the Fire Chief's sole discretion, whichever event occurs first, (and for such additional or extended periods for portions of the Work as provided in the Project Manual), that the completed work is free from all defects due to faulty materials, equipment or workmanship and that Contractor shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs or any damage to the Site, Project, Work, or any system installed therein resulting from such defects. .
- 67.2 Warranty Work / Normal Response Time: In the event of failure to comply with the above-mentioned conditions within one (1) week after being notified in writing, the OCFA is hereby authorized to proceed to have the defects remedied and made good at the expense of the Contractor who hereby agrees to pay the cost and charges therefore immediately on demand.
- 67.3 Warranty Work / Emergency Response Time: If in the opinion of the OCFA, defective work creates a dangerous condition, affects the OCFA's essential operations / essential use of the facility, affects the safety or preservation of property or personnel, or requires immediate correction or attention to prevent further loss to the OCFA, the Contractor shall be required to take corrective action within 24 hours after personal or telephonic notice by the OCFA's Property Management Section. If the Contractor cannot be contracted or does not comply with the OCFA's request for correction within 24 hours (or a reasonable time as determined by the OCFA), the OCFA may, notwithstanding the provisions of this Section 67, proceed to make such correction, the cost of which shall be charged against the Contractor.
- 67.4 Failure to Take Corrective Action: Failure by the Contractor to take corrective action as specified above shall constitute a material breach of this agreement and will result in the OCFA taking whatever corrective action it deems necessary including termination of this agreement. All costs resulting from such action by the OCFA will be claimed against Contractor or, if necessary, the Contractor's Performance Bond. The Contractor's Performance Bond shall remain in full force and effect through the warranty period.
- 67.5 Alternative Remedy: In the event that the Contractor fails to make adjustments, repairs, corrections or other work made necessary by such defects, or to properly maintain and service the Project, the OCFA may do so and charge the Contractor the cost incurred. The performance bond shall remain in full force and effect through the guarantee period or, at the option of the Contractor, a warranty bond in the amount of one hundred percent of the Contract price may be substituted for the performance bond. Such warranty bond must be in a form approved by OCFA General Counsel, be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety, and must have and maintain, throughout the warranty period, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide.
- 67.6 All Inclusive Remedies: The Contractor's obligations under this clause are in addition to the Contractor's other express or implied assurances of this Contract, Project Manual, or state law and in no way diminish any other rights that the OCFA may have against the Contractor for faulty materials, equipment, or work.

**68 Extra Work And Changes**

68.1 The Contract price as set forth in the Contract and the Contractor's Bid, includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in this Section 68. OCFA shall extend the time fixed in the Contract Documents for completion of the Project by the number of days reasonably required for Contractor to perform the extra work only if Contractor is actually delayed in the performance of any item of the Project on the critical path by:

68.1.1 Any act or neglect of OCFA, Project Manager, Design Professional, or any employee, agent, or representative of OCFA; or

68.1.2 Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or

68.1.3 Unusually severe weather conditions not reasonably anticipatable for that portion of the Site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or

68.1.4 Excusable Transportation Delays; or

68.1.5 Excusable Labor Disputes; or

68.1.6 Acts of God; or

68.1.7 National Emergency, declared by the President of the United States.

In the event one or more of the specific situations described above occurs, the Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor as determined by Project Manager. The decision of the Project Manager shall be final.

68.2 The Project Manager may, at any time, by written order, and without notice to the sureties, make changes in the drawings or specifications of the Contract Documents if within the general scope thereof. A change order shall also be any other written order (including direction, instruction, interpretation or determination) from the OCFA which causes any change, provided Contractor gives the OCFA written notice stating the date, circumstances and source of the order and that Contractor regards the order as a change order.

68.3 If any change under this Section 68 causes an increase or decrease in Contractor's actual direct cost or the time required to perform any part of the work under this Contract, whether or not changed by any order, the Project Manager shall make an equitable adjustment and modify the Contract in writing. Except for claims based on defective specifications, no claim for any change shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice as required below. In the case of defective specifications for which the OCFA is responsible, the equitable adjustment shall include any increased direct cost Contractor reasonably incurred in attempting to comply with those defective specifications.

68.4 No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate pursuant to the provisions of this Section 68 and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project

by the Scheduled Completion Date or to complete a Milestone. Project Manager's decision will be conclusive on the parties to this Contract.

- 68.5 No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract.
- 68.6 No extension of the Scheduled Completion Date or the right on the part of Contractor to secure any such extension pursuant to this Section 68 shall prejudice any right OCFA may have under the Project Manual, or otherwise, to terminate this Contract.
- 68.7 The Contract Price includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in in this Section 68.
- 68.8 Project Manager may extend the Scheduled Completion Date by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.
- 68.9 The OCFA or the Fire Chief may order modifications or authorize change orders for any reason. Such modifications shall be reviewed, evaluated, and processed in the manner specified in this Section 68.
- 68.10 Project Manager may at any time, without notice to any surety, by written order designated or indicated to be a Class 1 or Class 2 Change Order, make any change in the work within the general scope of the Contract, including, but not limited to, changes in:
  - 68.10.1 The Project Manual (including drawings and designs);
  - 68.10.2 The time, method, or manner of performance of the work;
  - 68.10.3 The OCFA-furnished facilities, equipment, materials, services, or site; or
  - 68.10.4 Directing acceleration in the performance of the work.
- 68.11 Except as provided in this Section 68, no order, statement or conduct of the OCFA or its representatives, including, but not limited to the Fire Chief, Project Manager, or the Design Professional, shall be treated as a change under this Section 68 or entitle Contractor to an equitable adjustment.
- 68.12 If any change under this Section 68 causes an increase or decrease in Contractor's actual, direct cost or the time required to complete the Project or a Milestone under this Contract and Project Manual, whether or not changed by any order, the Project Manager shall make an equitable adjustment and the OCFA shall modify the Contract in writing. Except for Class 1 claims based on defective provisions of the Project Manual, no claim for any change under Section 1.16 shall be allowed for any costs incurred more than 15 days before the Contractor gives written notice as required in this Section 68. In the case of defective specifications for which the OCFA is responsible, the equitable adjustment shall include any increased direct cost Contractor reasonably incurred in attempting to comply with those defective specifications.

- 68.13 If Contractor intends to assert a claim for an equitable adjustment under this Section 68, it must, within fifteen (15) days after receipt of a written change order under this Section 68 or the furnishing of a written notice hereunder, submit a written statement to the Project Manager setting forth the general nature and monetary extent of such claim. Such claim shall contain the documentation and information as specified herein. The Project Manager may extend the 15-day period so long as the request for the extension is submitted within such 15-day period and only for good and justified cause. Project Manager's decision regarding any request for extension shall be final and binding on all parties.
- 68.14 Claim documentation shall conform to generally accepted accounting principals and all supporting documentation shall be cited by reference, photocopies, or explanation. Supporting documentation may include, but shall not be limited to, general conditions, general requirements, technical specifications, drawings, correspondence, conference notes, shop drawings logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary schedules or time impact analyses, photographs, technical reports, requests for information, field instructions, and all other related records necessary to support Contractor's claim.
- 68.15 Supporting documentation of damages for each claim shall be cited, photocopied, or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the bid; certified, detailed labor records including labor distribution reports, material and equipment procurement records, construction equipment ownership cost records or rental records, Subcontractor or vendor files and cost records, service cost records, purchase orders, invoices, project as planned and as-built records, general ledger records, variance reports, accounting adjustment records, and any other accounting materials necessary to support Contractor's claim.
- 68.16 Each copy of the claim documentation shall be certified by a responsible office of the Contractor in accordance with the requirements of the Project Manual.
- 68.17 Should Contractor be unable to support any part of the claim and it is determined that such inability is attributable to falsity of such certification or misrepresentation of fact or fraud on the part of Contractor, the Contractor shall be liable to OCFA as provided for under California Government Code Section 12650 et seq.
- 68.18 Disputed work shall be performed as ordered in writing by the Project Manager, so long as the cost of such work is within the OCFA of the Project Manager as described above, so as to minimize the impact on, and delays to, the Work.
- 68.19 Costs which shall not be allowed or paid in Change Orders or claim settlements under this Contract include, but are not limited to, interest cost of any type other than those mandated by statute; claim preparation or filing costs; legal expenses; the costs of preparing or reviewing proposed Change Orders or change order proposals concerning change orders which are not issued by the OCFA; lost revenues; lost profits; lost income or earnings; rescheduling costs; costs of idled equipment when such equipment is not yet at the Site or has not yet been employed on the Work; lost earnings or interest on unpaid retainage; claims consulting costs; the costs of corporate officers or staff visiting the Site or participating in meetings with the OCFA; any compensation due to the fluctuation of foreign currency conversions or exchange rates; loss of other business; or any other cost identified as unallowable cost under the provisions of the Federal Acquisition Regulations.
- 68.20 No claim by Contractor for an equitable adjustment shall be allowed if made after final payment under this Agreement. Contractor hereby agrees to make any and all changes, furnish the materials and perform the work that OCFA or its Project Manager may require without

nullifying this Contract. Contractor shall adhere strictly to the Contract Documents unless a change therefrom is authorized in writing by the Project Manager, subject to the limitations contained herein. Under no condition shall Contractor make any changes to the Project, either in additions or deductions, without the written order of the OCFA or its Project Manager and the OCFA shall not pay for any extra charges made by Contractor that have not been agreed upon in advance in writing by the OCFA. Contractor shall submit immediately to the OCFA written copies of its firm's cost or credit proposal for change in the work. Disputed work shall be performed as ordered in writing by the OCFA or the Project Manager and the proper cost or credit breakdowns therefor shall be submitted without delay by Contractor to the Project Manager.

- 68.21 Project Manager is authorized by the Board of Directors to make, by written order, changes or additions to the work within the scope of the Contract Documents. This authority to approve changes is limited to 10% of the original contract amount. All changes over the amounts specified above shall be subject to the approval of the Board of Directors. Any change or addition of any kind pursuant to any provision of the Contract Documents which exceeds the limits described in this subsection and which have not been approved by the Board of Directors is void and can not be enforced against the OCFA.
- 68.22 Any claim of the Contractor for adjustment under this Section 68 or any other provision of the Project Manual must be asserted in writing within 15 days from the date of receipt by the Contractor of the notification of change unless the Board of Directors or Project Manager grants a further period of time before the date of final payment under the Contract Documents. Nothing provided in this Section 68 shall excuse the Contractor from proceeding with the prosecution of the work as changed. Except as otherwise provided in this Contract, no charge for any extra work or material will be allowed.
- 68.23 Labor wage rates shall not exceed the Prevailing Wage Rates supported by payroll records. Equipment rental rates should be based on latest edition of equipment rental rates published by the State of California Department of Transportation; Division of Construction.
- 68.24 Nothing in this Section shall excuse the Contractor from proceeding with the Contract Documents as changed.

## **69 No Verbal Modifications**

No verbal statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of the Contract or the Project Manual.

## **70 Material, Workmanship, And Acceptance**

- 70.1 Where materials are specified by reference to standard specifications of the American Society for Testing Materials (A.S.T.M.), Federal Specifications, or others, all applicable provisions of the designated specifications shall be considered as forming a part of the Contract Documents to the same force and effect as if repeated therein.
- 70.2 All work under this Contract Documents shall be performed in a skillful and workmanlike manner. The Project Manager may, in writing, require the Contractor to remove from the work any employee the Project Manager deems incompetent, careless, or otherwise objectionable.
- 70.3 The Contractor shall, without charge, replace any material or correct any workmanship found by the Project Manager not to conform to the contract requirements, unless in the public interest the Project Manager consents to accept such material or workmanship with an

appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

- 70.4 If the Contractor does not promptly replace rejected material or correct rejected workmanship, the OCFA (1) may, by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) may terminate the Contractor's right to proceed in accordance with these General Conditions.
- 70.5 Unless otherwise provided in the Contract Documents, acceptance by the OCFA shall be accomplished by recordation of Notice of Completion which shall be made as promptly as practicable after completion and inspection of all work required by the Contract Documents. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regard the OCFA's rights under any warranty or guarantee. Informal procedures such as "punch lists" are not to be deemed final or conditional acceptance.

## **71 Termination For Default & Damages For Delay**

- 71.1 The Contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party, provided that no termination may be effected unless the other party is given: (1) Not less than ten (10) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate; and (2) An opportunity for consultation with the terminating party prior to termination.
- 71.2 If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in the Contract Documents or any extension thereof, or fails to complete said work within such time, the Board of Directors may, by written notice to the Contractor, terminate Contractor's right to proceed with the work or such part of the work as to which there has been delay. In such event, the OCFA may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completion the work such materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, Contractor and Contractor's sureties shall be liable for any damage to the OCFA resulting from Contractor's refusal or failure to complete the work within the specified time.
- 71.3 Fixed and agreed liquidated damages are provided in the Contract Documents, these General Conditions, paragraph 1.38 J. If the OCFA so terminates the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the OCFA in completing the work.
- 71.4 Fixed and agreed liquidated damages are provided in the Contract Documents, these General Condition, paragraph 1.38 J. If the OCFA does not so terminate the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until the work is completed or accepted.
- 71.5 The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if the Contractor is actually delayed in the performance of any item of the Project on the critical path by:
- 71.5.1 Any act or neglect of OCFA, Project Manager, Design Professional, or any employee, agent, or representative of OCFA; or

- 71.5.2 Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or
- 71.5.3 Unusually severe weather conditions not reasonably anticipatable for that portion of the County of Orange where the Project site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or
- 71.5.4 Excusable Transportation Delays; or
- 71.5.5 Excusable Labor Disputes; or
- 71.5.6 Acts of God; or
- 71.5.7 National Emergency, declared by the President of the United States.

The Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor. No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate as provided above and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project by the scheduled completion date. Project Manager's decision will be conclusive on the parties to this Contract. No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract. Project Manager may extend the time indicated for completion of the Project by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.

The rights and remedies of the OCFA provided in this Section 71 are in addition to any other rights and remedies provided by law or under the Contract Documents.

## **72 OCFA's Rights Regarding Work**

- 72.1 If the Work or any portion thereof is defective and/or does not conform to the Project Manual, or if Contractor fails to supply sufficient skilled workers and suitable material, services, or equipment, or if Contractor fails to make prompt payments to Subcontractors or for labor, materials, or equipment, or if Contractor fails to supervise or coordinate the Work, or if grounds exist pursuant to any other provision of the Project Manual, Project Manager may order Contractor to stop the Work, or any portion thereof, until cause for the order to stop has been eliminated. Project Manager's exercise of this right to stop the Work shall not give rise to any duty on the part of the Project Manager to exercise this right for the benefit of Contractor or any other party. This right to stop the Work pursuant to this Section is in addition to and not in limitation of OCFA's rights to terminate this Contract in accordance with the Project Manual.

- 72.2 Project Manager may at any time and without cause suspend the Work or any portion thereof by written notice to Contractor and a Change Order shall be issued extending the Scheduled Completion Date by the number of days of such suspension. For suspensions of the Work which are fourteen (14) days or less, Contractor shall recommence the Work at the direction of Project Manager with the Lump Sum Price remaining unchanged. Provided Contractor is not in default of the terms of the Project Manual, if there is a suspension of Work or suspensions which in the aggregate extend beyond fourteen (14) days, Contractor shall recommence the Work at the direction of Project Manager and Contractor and Project Manager shall, at Contractor's written request and through good faith negotiations, equitably adjust the Scheduled Completion Date and any Milestones, and shall equitably adjust the Lump Sum Price, in an amount to be approved by the Fire Chief or the OCFA, which approval shall not be unreasonably withheld, for each day of such suspension exceeding fourteen (14) days. Adjustments to the Scheduled Completion Date or completion of a Milestone shall only be provided to the extent the suspension of Work actually adversely affects the Scheduled Completion Date or completion of a Milestone, as determined by Project Manager. The decision of the Project Manager shall be final.
- 72.3 In the event the Project Manager determines that the progress of the Work is behind the progress set forth in the Contractor's Construction Schedule, Project Manager may require Contractor to take such actions as the Project Manager deems necessary to expedite the progress of the Work in conformance with the progress set forth in the Contractor's Construction Schedule. Such actions may include without limitation, increasing the number of workers performing the Work, utilizing overtime work, and requiring additional work shifts. Such action by Project Manager to place Contractor back on schedule shall not be the subject of a Change Order increasing the Lump Sum Price, nor shall Contractor receive any additional compensation for these activities.
- 72.4 Contractor shall cooperate with OCFA, Project Manager, Design Professional, and all other persons as OCFA may retain or employ for (by way of illustration only) installation of furniture, decoration, and training, and the like at the Project. Contractor acknowledges that it is critical to OCFA that separate Contractors are allowed to perform and coordinate the installation of furnishings, fixtures, and equipment not covered by this Contract but necessary for the Project. Contractor covenants to use its best efforts to prevent OCFA from suffering delay in completion of the Work as a result of Contractor's failure to cooperate and coordinate its work with Related Work as required by the Project Manual.
- 72.5 To the extent that OCFA timely provides to Contractor information relating to the work of its separate Contractors, the interrelationships between the work of separate Contractors and/or third parties such as OCFA's purchasing agent and any other special consultants shall be indicated on the Contractor's Construction Schedule to allow OCFA to provide for proper phasing.

### **73 Contract Price; Method of Payment; Retention Of Funds**

- 73.1 OCFA agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Contract, subject to any subsequent additions or deductions as provided in approved change orders, the sum as itemized in the Exhibit K: Schedule of Values.
- 73.2 Progress payments shall be made to the Contractor per month for each successive month as the work progresses. The Contractor shall be paid such sum as will bring the total payments received since the commencement of the work up to ninety percent (90%) of the value of the work completed, less all previous payments, provided that the Contractor submits the request for payment prior to the end of the day required to meet the payment schedule. The OCFA

will retain ten percent (10%) of the amount of each such progress estimate and material cost until 30 days after the recordation of the Notice of Completion.

- 73.3 The Contractor shall request payment through the preparation and submission to OCFA of an Invoice in accordance with the Project Manual. It shall show in detail all monies properly payable to the Contractor, approved by the Project Manager, in accordance with the previously approved activities as identified on the Contractor's Construction Schedule, including those items of labor, materials, and equipment used or incorporated in the Work (and, if OCFA has agreed in advance in writing, suitably stored at the Site) through and including the Payment Application Date. The Application for Partial Payment shall have, as attachments waivers of mechanics' and materialmen's liens by the Contractor and its Subcontractors and Sub-subcontractors as of the date of submission of the Application for Partial Payment, which waivers shall conform in all material respects with the then current provisions of Section 3262 of the California Civil Code (or any successor thereto), certifications of payrolls (30 days in arrears), and such other evidence of performance of the Work, the costs thereof and payment therefor as OCFA may deem necessary or desirable.
- 73.4 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Partial Payment shall pass to OCFA, free and clear of all liens, claims, security interests or encumbrances, upon the sooner occurrence of: (a) the delivery of any such materials or equipment to the Site; or (b) the tender of payment of the applicable Application for Partial Payment by OCFA to the Contractor; and that no Work, materials, or equipment covered by an Application for Partial Payment shall have been acquired, whether by the Contractor or by any Subcontractor or Sub-subcontractor, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person. The passage of title to OCFA as provided herein shall not alter or limit the obligations and duties of the Contractor with respect to the Work and the materials or equipment incorporated therein or used in connection therewith as set forth in the Project Manual. In this regard, it is specifically noted that neither the OCFA, nor its Directors, officers, employees, or agents shall be held responsible in any manner for any loss that may happen to the Work or any part thereof during the course of construction; for any loss or damage to any of the materials, equipment, supplies, or other things used or employed in performing the Work; for injury to or death of any person, either workers or the public; or for damage to property, from any cause that might have been prevented by the Contractor, Contractor's workers, employees, Subcontractors, suppliers, or agents.
- 73.5 If the Contractor has submitted an Application for Partial Payment in the manner prescribed in the Project Manual, The Project Manager shall, with reasonable promptness, review, approve the same (or such portions thereof covering amounts it determines to be properly due), or shall state in writing its reasons for withholding its approval (whether of all or a part).
- 73.6 The Project Manager's approval of an Application for Partial Payment shall not constitute a representation by OCFA that the conditions precedent to the Contractor's entitlement to payment have been fulfilled, nor shall approval of an Application for Partial Payment by OCFA be deemed a representation by OCFA: (a) that it has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (b) that it has reviewed the construction means, methods, techniques, sequences, coordination or procedures, or the cleanliness of the Site, or the safety precautions and programs, in connection with the Work; (c) that it has made any examination to ascertain how or for what purposes the Contractor has used the monies previously paid on account of the Contract Sum.
- 73.7 No approval of an Application for Partial Payment, progress payment or any beneficial, partial or entire use or occupancy of the Project by OCFA shall constitute an acceptance of any Work which is not in accordance with the Project Manual; and regardless of approval of an

Application for Partial Payment by OCFA, the Contractor shall remain totally obligated and liable for the performance of the Work in strict compliance with the Project Manual.

- 73.8 Subject to OCFA's rights to offset or withhold as set forth in these General Conditions, after OCFA has approved an Application for Partial Payment, in whole or in part, it shall make payment of the amount approved to the Contractor as provided in the Project Manual.
- 73.9 Pursuant to California Public Works Contract Code Section 22300, the Contractor will be entitled to post approved securities with the OCFA or an approved financial institution in order to have the OCFA release funds retained by the OCFA to ensure performance of the Contract. Contractor shall be required to execute an addendum to this Contract together with escrow instructions and any other documents in order to effect this substitution.

#### **74 Right To Occupy - Beneficial Use**

- 74.1 OCFA reserves the right, prior to Substantial Completion of the entire Project, to use a portion or portions of the Work when Project Manager determines that such portion or portions may be safe for such use provided such use will not unreasonably interfere with the Contractor's orderly progress of the Work. Such use ("beneficial use") shall not be construed as an acceptance of any such Work, or a part of the Work, as substantially complete, nor shall it affect the dates and times when payments shall become due from the OCFA to Contractor, nor shall it prejudice OCFA's rights pursuant to the Contract or any bonds guaranteeing the same. Notwithstanding such occupancy or use, Contractor shall continue to provide insurance, security, maintenance, utilities, and protection to the Work, unless otherwise agreed by the parties in writing.
- 74.2 At the sole discretion of the Fire Chief, any time after beneficial use and prior to issuance of a certificate of occupancy by the Local Jurisdictions, the Fire Chief may request one or more of the local Jurisdictions to issue a temporary certificate of occupancy for a portion or portions of the Project. Upon the issuance of such temporary certificate of occupancy, the OCFA may occupy such portion or portions of the Project, and such portions shall be deemed to be substantially complete.
- 74.3 Beneficial Occupancy shall not constitute acceptance by OCFA or Project Manager of the completed Work or any portion thereof, shall not relieve the Contractor of its full responsibility for correcting defective Work and repairing the Work, shall not be deemed to be the equivalent of completion of the Work and shall not entitle the Contractor to any increase in the Contract Sum.
- 74.4 Anything in this Section 74 to the contrary notwithstanding, OCFA may certify any portion of the Work to be occupied or used hereunder to be Substantially Completed and, upon the Contractor's timely completion or correction of the items on the "punch-list" with respect thereto, accept that portion of the Work.

#### **75 Final Completion and Final Payment.**

- 75.1 When all permits for the Work have been approved, accepted, or otherwise signed off as complete by the inspectors of the Local Jurisdictions, Contractor shall certify to the Project Manager in writing within ten (10) days that the Work is complete in accordance with the Project Manual and is ready for occupancy. Project Manager, Design Professional, and Fire Chief will make an investigation and inspection of all phases of the Work. If all contractual obligations have not been met, Project Manager shall furnish Contractor a detailed list of all remaining work (the "Punchlist") and Contractor shall commence correction of all items on the Punchlist. A letter of acceptance shall be issued upon completion of all Work specified on the

Punchlist to the satisfaction of the Project Manager. In no case will the letter of acceptance relieve Contractor of any obligations of Contractor that may be outstanding. Within five (5) business days after issuance of a letter of acceptance, Project Manager and the Design Professional shall issue a certificate of final completion. Upon receipt of the certificate of final completion, Contractor shall submit its final application for payment ("Final Application for Payment") which shall set forth all amounts due and remaining unpaid to Contractor and upon approval thereof by the Project Manager and the Design Professional, OCFA shall pay to Contractor the amount due under such Final Application for Payment as provided herein.

75.2 Before OCFA makes the Final Payment to Contractor, all requirements of the Project Manual shall have been fulfilled, including the following:

- (1) Receipt by Project Manager of a complete list of Subcontractors and principal vendors, including addresses, telephone numbers, and names of individuals to contact who are familiar with the Project, including Contractor;
- (2) Receipt by Project Manager of all operation and maintenance manuals, approved by the Design Professional;
- (3) Receipt by OCFA of all releases and written guarantees from all Subcontractors and material suppliers for the Project in a form and content satisfactory to the Project Manager, which Contractor hereby agrees to obtain for, and deliver to, Project Manager prior to completion of the Project;
- (4) Receipt by Project Manager of all "As-Built" records, approved by Project Manager and the Design Professional as specified in the Project Manual;
- (5) Copies of any other warranties or guarantees received from manufacturers, suppliers, or Subcontractors of Contractor or any Subcontractor; and
- (6) Evidence satisfactory to the Project Manager showing that the Contractor has promptly and satisfactorily settled all claims, if any, for services performed and materials furnished in connection with the Work.
- (7) Receipt by Project Manager of all documentation necessary to demonstrate compliance with the Leadership and Environmental Design program requirements.

75.3 Final Payment shall not become due until Contractor submits to Project Manager: (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which OCFA or OCFA's property might in any way be responsible, have been paid or otherwise satisfied; (2) the consent of the surety to Final Payment; and (3) if reasonably required by the Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Project Manager. Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.

75.4 If any Subcontractor or material supplier refuses to furnish a release or waiver required by Project Manager, Contractor may satisfy its obligation with respect to such Subcontractor or material supplier by furnishing a cash bond, assignment of a certificate of deposit, or other liquid security satisfactory to Project Manager to indemnify OCFA against any lien. If any lien remains unsatisfied after all payments are made, Contractor shall refund to OCFA all monies that the OCFA may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

75.5 The acceptance of Final Payment shall constitute a waiver of all claims by Contractor except those previously made in writing and identified by Contractor as unsettled at the time of the Final Application for Payment.

- 75.6 The making of Final Payment shall constitute a waiver of all claims by OCFA except those arising from (1) unsettled claims; (2) faulty or defective Work appearing after Final Completion of the Work; (3) failure of the Work to comply with the requirements of the Project Manual; (4) terms of any special warranties required by the Project Manual; (5) "Punchlist" items not yet completed by the Contractor; (6) discrepancies noted in subsequent audits performed by OCFA or its agents within one (1) year following Final Payment; or (7) any claims identified by Project Manager as unsettled prior to making of Final Payment.
- 75.7 Final Payment shall not relieve Contractor of its warranty and indemnification obligations pursuant to the Project Manual, which shall survive such payment.
- 75.8 Contractor shall keep and present within fifteen (15) days after request by OCFA or its agents, in a form reasonably approved by the Project Manager, a final itemized accounting of all expenditures made in connection with the Work together with appropriate suplf any Subcontractor or Sub-subcontractor refuses to furnish any release, satisfaction or waiver of lien required at any time by OCFA under Paragraphs 9.1., or files a claim of lien against OCFA's property, the Contractor shall, if requested by Project Manager and at the Contractor's expense, furnish and record a Mechanic's Lien Release Bond (separate and apart from any other bond provided by the Contractor hereunder) that is in full compliance with the requirements of the then current provisions of Section 3143 of the California Civil Code. If any Subcontractor or Sub- subcontractor serves a Stop Notice (bonded or otherwise) on OCFA, Contractor shall, if requested by OCFA and at Contractor's expense, furnish a Stop Notice Release Bond (separate and apart from any other bond provided by the Contractor hereunder) that is in full compliance with the then current provisions of Section 3171 of the California Civil Code. The Contractor authorizes OCFA, and shall cause its Subcontractors and Sub-subcontractors to authorize OCFA, to check directly with any suppliers of labor and material with respect to any item chargeable to OCFA's property, to confirm balances due and to obtain sworn statements and waivers of lien, all if OCFA so elects. If any lien remains unsatisfied after all payments are made to the Contractor, the Contractor shall reimburse OCFA on account of all monies that the latter may be compelled to pay in discharging such lien, including all costs and attorneys' fees.

## **76 Surety Bonds.**

Contractor shall, upon entering into performance of this Agreement, furnish a bond in the amount of one hundred percent (100%) of the Contract price bid, to guarantee the faithful performance of the work, and an additional bond in the amount of one hundred percent (100%) of the Contract price bid to guarantee payment of all claims for labor and materials furnished. The bonds required pursuant to this Section shall be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety and shall have and maintain throughout the life of the Project, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide. This Contract shall not become effective until such bonds are supplied to and approved by the OCFA.

## **77 Risk And Indemnification**

- 77.1 Indemnification: To the fullest extent permitted by law, Contractor shall indemnify, defend (at Contractor's sole cost and expense and with legal counsel approved by OCFA, which approval shall not be unreasonably withheld), protect and hold harmless OCFA and all of OCFA's officers, directors, employees, consultants, agents, successors and assigns (collectively the "Indemnified Parties"), from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other

professional, expert or consultants' fees and costs and OCFA's general and administrative expenses) of every kind and nature whatsoever (individually, a "Claim"; collectively, "Claims") which may arise from or in any manner related (directly or indirectly) to any work performed or services provided under this Agreement (including, without limitation, the negligent and/or willful acts, errors and/or omissions of Contractor, its principals, officers, agents, employees, Contractors, suppliers, consultants, subconsultants, subcontractors, anyone employed directly or indirectly by any of them or for whose acts they may be liable or any or all of them) regardless of any active or passive negligence or strict liability of an Indemnified Party. Contractor understands and acknowledges that the indemnification obligation hereunder is intended to constitute a "Type I" indemnity under California law and extends to and includes Claims arising from the active or passive negligence of Indemnified Parties. Notwithstanding the foregoing, nothing herein shall be construed to require Contractor to indemnify the Indemnified Parties from any Claim arising from the sole negligence or willful misconduct of the Indemnified Parties.

- 77.2 **Duty to Defend:** The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend exists regardless of any ultimate liability of Contractor. Such defense obligation shall arise immediately upon presentation of a Claim by any party and written notice of such Claim being provided to Contractor. Payment to Contractor by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. Contractor's indemnification obligation hereunder shall survive the expiration or earlier termination of this Agreement until such time as action against the Indemnified Parties for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations or statute of repose. Contractor's liability for indemnification hereunder is in addition to any liability Contractor may have to OCFA for a breach by Contractor of any of the provisions of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Contractor's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party shall not be employed in the interpretation of this Agreement.

## **78 Insurance.**

### **78.1 Compliance with Insurance Requirements.**

- 78.1.1 As a condition precedent to the effectiveness of this Agreement, and without limiting the indemnity provisions set forth in this Agreement, Contractor shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Contractor shall not commence any work or services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Contractor's existing insurance policies do not meet the insurance requirements set forth herein, Contractor agrees to amend, supplement or endorse the policies to do so.
- 78.1.2 The amount of insurance coverage available to pay claims under each policy required hereunder shall be the higher of (a) the minimum limits required below, or (b) the actual limits established in each policy. Thus, by way of example only, if the minimum policy limit is \$2 million per occurrence but insurance actually carried by the Contractor or subcontractor is \$4 million per occurrence, the coverage required to be available for claims

under that policy would be \$4 million. (Nothing herein requires the Contractor to purchase insurance at limits greater than the minimum limits established below.)

## **78.2 Types of Insurance Required.**

Contractor shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

**78.2.1 Commercial General Liability Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Commercial General Liability Insurance (Insurance Services Office form CG 00 01) written on an occurrence basis with limits of at least five million dollars (\$5,000,000.00) per occurrence, five million dollars (\$5,000,000.00) in the general aggregate, and five million dollars (\$5,000,000.00) for completed operations aggregate. Defense costs shall be paid in addition to (and shall not reduce) the limits. The policy shall contain no endorsements or provisions limiting coverage for: (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) any other exclusion contrary to the Agreement.

**78.2.2 Automobile Liability Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Automobile Liability Insurance (Insurance Services Office form CA 001) written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) combined limit for each occurrence covering bodily injury and property damage. The policy shall specifically include coverage for owned, non-owned, leased, and hired automobiles.

**78.2.3 Workers' Compensation Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Workers' Compensation Insurance in at least the minimum statutory amounts, and in compliance with all other statutory requirements, as required by the State of California. Contractor hereby waives, and agrees to obtain endorsements from its workers' compensation insurer waiving, all subrogation rights against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, and to require each of its subcontractors, if any, to waive the same and to obtain endorsements waiving the same subrogation rights under their workers' compensation insurance policies. Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Employer's Liability Insurance written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) per incident for bodily injury, disease or other covered claim.

**78.2.4 Builders Risk (Course of Construction) Insurance.** Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a Builders Risk (Course of Construction) Insurance policy with limits of at least five million dollars (\$5,000,000.00). [Covered causes of loss shall include, or be endorsed to include, earthquake, flooding and other acts of God.] Contractor and each subcontractor agree to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers. The Builders Risk policy shall be endorsed to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers.

## **78.3 Acceptability of Insurers.**

Insurance required by this section 78 shall be issued by a licensed company authorized to transact business in the state by the Department of Insurance for the State of California with a current rating

of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI), by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Contractor agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA. Contractor shall immediately substitute any insurer whose A.M. Best rating drops below the levels specified herein.

#### **78.4 Insurance Endorsements.**

Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Contractor shall provide endorsements issued by the insurance company on forms approved by the OCFA to add the following provisions to the insurance policies:

- 78.4.1 Additional Insured: The OCFA and its officials, officers, employees, agents, representatives, attorneys and volunteers shall be additional insureds with regard to liability and defense of suits and claims arising out of the performance of the Agreement; and
- 78.4.2 Additional Insured Endorsements: Additional insured endorsements shall not: (1) be restricted to "ongoing operations", (2) exclude "contractual liability", (3) restrict coverage to "sole" liability of Contractor, or (4) contain any other exclusions contrary to the Agreement. The coverage shall contain no special limitations on the scope of protection afforded to additional insureds; and
- 78.4.3 Primary and Non-Contributing Insurance: All policies of Commercial General Liability Insurance and Automobile Liability Insurance shall be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, shall not contribute with this primary insurance. Policies shall contain, or be endorsed to contain, such provisions.
- 78.4.4 Waiver of Subrogation: All policies of Commercial General Liability, Automobile Liability Insurance and Worker's Compensation shall contain or be endorsed to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, or shall specifically allow Contractor or others providing insurance evidence in compliance with the requirements set forth in this section to waive their right to recovery prior to a loss. Contractor hereby agrees to waive its own right of recovery against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, and Contractor hereby agrees to obtain similar written express waivers and insurance clauses from each of its subcontractors prior to commencement of work by the subcontractor.
- 78.4.5 Notice: Each policy of insurance required by this section 78 shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice by First Class U.S. Mail, postage-prepaid, has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Contractor's failure to pay the insurance premium, the notice provided to OCFA shall be by ten (10) days prior written notice. (Note: an endorsement that fails to state that the insurance company will provide the notice required by this subsection (e.g., "will endeavor to" or similar non-

committal phrases) does not comply with the requirements of this subsection. Similarly, Contractor's offer to provide the required notice in lieu of the insurance company doing so will not comply with this subsection. It is the Contractor's obligation to ensure that its insurance company(ies) will provide all policy endorsements required under this Contract.)

78.4.2 For all policies of Commercial General Liability Insurance, Contractor shall provide endorsements for completed operations to effectuate this requirement.

#### **78.5. Deductibles and Self-Insured Retentions.**

Any deductible or self-insured retention must be approved in writing by the OCFA in advance and shall protect the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention. Contractor shall be solely responsible for the payment, and if required by the insurer the advancement, of any and all deductible amounts and self-insured retentions.

#### **78.6. Evidence of Coverage.**

Within seven (7) calendar days after the date of the Notice of Apparent Low Bidder, Contractor shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required by this section. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. The certificates of insurance and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. (ACORD form Certificates of insurance will not be accepted in lieu of approved endorsements.) At least fifteen (15) days prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or is being provided through another insurance company or companies. Contractor shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

#### **78.7 Requirements Not Limiting.**

Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Contractor may be held responsible for payments of damages to persons or property.

#### **78.8 Enforcement of Agreement (Non-Estoppel).**

Contractor acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Contractor of any non-compliance with any of the insurance requirements set forth in this section imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

**78.9 Insurance for Subcontractors.**

Contractor shall either: (1) include all subcontractors engaged in any work or services for Contractor relating to this Agreement as additional named insureds under the Contractor's insurance policies; or (2) Contractor shall be responsible for causing its subcontractors to procure and maintain the same types and amounts of insurance in compliance with the terms of the insurance requirements set forth in this section (except Builders Risk (Course of Construction) Insurance), including but not limited to adding the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, as additional insureds to their respective policies. All policies of Commercial General Liability Insurance and Automobile Liability Insurance provided by Contractor's subcontractors performing any work or services related to this Agreement shall be endorsed to name the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, as additional insureds. Contractor shall not allow any subcontractor to commence any work or services relating to this Agreement unless and until the Contractor has received confirmation that the subcontractor has secured all required insurance. Upon request of OCFA, Contractor shall deliver to OCFA all certificates of insurance and endorsements required from subcontractors. (Note: Contractor's duty to obtain all required insurance for subcontractors required under this Agreement applies whether or not OCFA requests delivery of evidence of such coverage.)

**78.10. Insurance for Large Equipment Suppliers**

Suppliers of large equipment that will be installed as part of the Project must have and maintain General Liability Insurance and Automobile Insurance with all endorsements required hereinabove unless the Contractor or Subcontractor that will install the large equipment maintains General Liability Insurance and Automobile Liability Insurance that is endorsed to name the large equipment supplier as an additional named insured and such endorsement is provided to OCFA prior to delivery of the large equipment.

**78.11 Other Insurance Requirements.**

The following terms and conditions shall apply to the insurance policies required of Contractor pursuant to this Agreement:

- 78.11.1 Contractor shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled or suspended, (2) the limits of any of the insurance coverage types or amounts required herein are reduced by the insurer or depleted by other claims, or (3) the deductible or self-insured retention is increased.
- 78.11.2 All insurance coverage and limits provided by Contractor and available or applicable to this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.
- 78.11.3 None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.
- 78.11.4 Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay commencement of the Project. It is

Contractor's obligation to ensure timely compliance with all insurance submittal requirements as provided herein.

78.11.5 Contractor agrees to ensure that subcontractors, if any, and any other parties involved with the Project who are brought onto or involved in the Project by Contractor, have, or are provided by Contractor's insurer, the same minimum insurance coverage required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that upon request, all agreements with subcontractors and others engaged in the Project will be submitted to the OCFA for review. Claims for which coverage is required but not provided due to Contractor's failure to comply with this section (e.g., allowing subcontractors to proceed with disallowed limitations on their insurance coverage, or failing to require subcontractors to provide required insurance coverage or endorsements) will result in retention of payments in amounts necessary to cover the anticipated costs associated with defending and paying the claims.

78.11.6 Contractor agrees to provide immediate written notice to OCFA of any claim, demand or loss against Contractor arising out of the work or services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to pay claims, demands or losses arising out of this Agreement.

#### **79. Contractor's Liability; OCFA Not Liable; Claims Resolution**

79.1 Contractor's liability. The Contractor shall be responsible for any loss or damage that may occur to:

- The work or any part thereof;
- Any of the materials or other things used or employed in performing the work;
- Any injury to any person or persons, either workers or the public;
- Any damage to property resulting from any cause which might have been prevented by the Contractor, including defects or obstructions at any time before completion of the work and its final acceptance.

79.2. OCFA ordered precautions. If, in the opinion of the Engineer, the precautions taken by Contractor are not safe or adequate at any time during the term of the Contract, the Engineer may order the Contractor to take further precautions, and if the Contractor shall fail to do so, the Engineer may order the work done by others and charge the Contractor for the cost thereof, such cost to be deducted from any moneys due or becoming due the Contractor. Failure of the Engineer to order such additional precautions, however, shall not relieve the Contractor from his full responsibility for public safety.

79.3 OCFA not liable. The OCFA shall not be answerable or accountable in any manner, for any loss or damage that may occur to any of the following from any cause which might have been prevented by the Contractor:

- The work or any part thereof;
- Any of the materials or other things used or employed in performing the work;
- Any injury to any person or persons, either workers or the public;
- Any damage to property.

#### 79.4 Claims Resolution.

79.4.1. From time to time during the period of this contract, the OCFA and/or the Contractor may be served with third-party claims, as a result of alleged conduct by Contractor. The following procedures shall be followed by OCFA and Contractor:

For claims received by Contractor:

(1) Contractor shall provide OCFA on a monthly basis details regarding any claim for damages to persons or property, including, date claim made, date of alleged damages, type of damages, alleged cause of damages and, as claims are resolved, details regarding Contractor's denial or payment of such claim and the reasons for denial or payment.

(2) Contractor shall resolve or deny any claim received within thirty (30) days of receipt. If Contractor is unable to resolve a claim within the thirty (30) days set forth above, it shall, prior to the expiration of the thirty (30) days request and extension in writing from the OCFA.

For claims received by OCFA:

(1) OCFA shall process any claims received pursuant to the California Government Claims Act.

(2) If after investigation of the claim, the OCFA determines the Contractor is liable under this Contract, OCFA shall tender the claim to the Contractor for proper handling and resolution.

79.5. Retention of Claimed Damages by OCFA. The OCFA may retain so much of the money due the Contractor under and by virtue of the Contract as shall be considered necessary by the OCFA until disposition has been made of such suits or claims for damages aforesaid.

#### 80 Termination

80.1 The performance of work under the Contract Documents may be terminated in whole, or from time to time in part, whenever the Board of Directors shall determine that such termination is in the best interest of the OCFA, provided that the Contractor is given (1) Not less than ten (10) calendar days' written notice (delivered by email, followed by overnight delivery with proof of delivery) of intent to terminate; (2) the extent to which performance of work under the Contract Documents is terminated; (3) the date upon which such termination becomes effective; and (4) An opportunity for consultation with the terminating party prior to the effective date of the termination.

80.2 This Contract may be terminated, or the right of the Contractor to complete the Project may be terminated, without liability or damage, when in the OCFA's opinion, the Contractor is not complying with the Contract requirements in good faith, has become insolvent, or has assigned or subcontracted any part of the Work without the OCFA's consent. In the event of such termination, the Contractor will be paid the actual amount due based upon the quantity of work completed at the time of termination, less damages caused to the OCFA by acts of the Contractor causing the termination. The Contractor, in having tendered a bid, shall be deemed to have waived any and all claims for damages because of termination of the Contract or the right of the Contractor to complete the Project for any cause stated in this Section 80.

- 80.3 If termination is effected by the OCFA, an equitable adjustment in the price provided for in this Contract shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the Contractor at the time of termination may be adjusted to cover any additional costs to the OCFA because of the Contractor's default. The equitable adjustment for any termination shall provide for payment to the Contractor for services rendered and expenses incurred in accordance with Section 8 of the California, Department of Transportation Standard Specifications.
- 80.4 After receipt of a Notice of Termination, and except as otherwise directed by the Board of Directors, the Contractor shall:
- (1) Stop work under the Contract Documents on the date and to the extent specified in the Notice of Termination; and
  - (2) Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the work under the Contract Documents as is not terminated; and
  - (3) Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination; and
  - (4) Assign to the OCFA, all of the right, title and interests of the Contractor under the orders and subcontracts so terminated, in which case the OCFA shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts; and
  - (5) Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, subject to the approval of the Board of Directors; and
  - (6) Complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and
  - (7) Deliver or otherwise make available to the OCFA all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the Contractor in performing this Contract whether completed or in process; and
  - (8) Take such action as may be necessary, or as the Project Manager may direct, for the protection and preservation of the property related to the Contract Documents which is in the possession of the Contractor and in which the OCFA has, or may acquire, interest.
- 80.5 After receipt of a Notice of Termination, the Contractor shall submit to the Project Manager a verified termination claim. Such claim shall be submitted promptly but in no event later than one year from the effective date of termination, unless one or more extensions in writing are granted by the Board of Directors upon request of the Contractor made in writing within such one-year period or authorized extension thereof.
- 80.6 If any dispute concerning a question of fact arising under the terms of this Contract is not disposed of within a reasonable period of time by Contractor and Project Manager, such matter shall be brought to the attention of the OCFA via written notice of unresolved dispute(s). If agreement cannot be reached after a good faith effort to resolve the dispute, either party may assert its other rights and remedies within this Contract or within a court of competent jurisdiction. The Parties agree that, in the event of a dispute notwithstanding, they will continue without delay to carry out all their responsibilities under this Contract. The Contractor and the OCFA Board of Directors may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this Section 80, which amount or amounts may include a reasonable allowance for profit on work done; provided, that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not

terminated. The Contract Documents shall be amended accordingly, and the Contractor shall be paid the agreed amount.

### **81 Patent Infringement**

- 81.1 The Contractor shall report to the Project Manager, promptly and in reasonable detail, each notice or claim of patent infringement based on the performance of the Contract Documents of which the Contractor has knowledge.
- 81.2 In the event of any suit against the OCFA, or any claim against the OCFA made before suit has been instituted, on account of any alleged patent infringement arising out of the performance of the obligations under the Contract Documents, or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall, at Contractor's own expense, furnish to the OCFA, upon request, all evidence and information in possession of the Contractor pertaining to such suit or claim. The Contractor further agrees to indemnify and hold harmless the OCFA against any and all claims or lawsuits based upon such patent infringement, to defend such suits, and to pay any judgment rendered against OCFA, its employees, or the Board of Directors.

### **82 No Waiver By OCFA**

The failure of the OCFA in any one or more instances to insist upon strict performance of any of the terms of the Contract Documents or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion.

### **83 Disputes**

- 83.1 In the event of a dispute between the parties as to performance of the work, the interpretation of the Contract Documents, or payment or nonpayment for work performed, the parties shall attempt to resolve the dispute. Pending resolution of the dispute, the Contractor shall continue the work diligently to completion as directed by Project Manager. If the dispute is not resolved, the Contractor agrees Contractor will neither rescind the Contract Documents nor stop the progress of the work.
- 83.2 With respect to any "claim" as that term is defined in Public Contract Code section 9204, Contractor shall submit such claim in accordance with Section 91 hereinbelow.

### **84 Attorneys' Fees**

If any action at law or in equity is necessary to enforce or interpret the terms of this Contract, each party shall be responsible for their respective costs, including attorneys' fees. The prevailing party shall not be entitled to recover its attorneys' fees or related costs. Nevertheless, if any action is brought against the Contractor or any Subcontractor to enforce a Stop Notice or Notice to Withhold, which names the OCFA as a party to said action, the OCFA shall be entitled to reasonable attorneys' fees, costs and necessary disbursements arising out of the defense of such action by the OCFA. The OCFA shall be entitled to deduct its costs for any Stop Notice filed, whether court action is involved or not.

### **85 Contractor's Employees' Compensation**

- 85.1 General Prevailing Rate: OCFA has been advised by the State of California Director of Industrial Relations of the Director's of the general prevailing rate of per diem wages and the general prevailing rate for legal holiday and overtime work in the locality in which the work is to be performed for each craft or type of work needed to execute this Contract, and copies of the same are on file in the Office of the Engineer of OCFA. The Contractor agrees that not

less than said prevailing rates shall be paid to workers employed on this public works contract as required by Labor Code Section 1774 of the State of California.

- 85.2 Forfeiture For Violation: Contractor shall, as a penalty to the OCFA, forfeit Fifty Dollars (\$50.00) for each calendar day or portion thereof for each worker paid (either by the Contractor or any subcontractor under it) less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Sections 1770-1780 of the California Labor Code for the work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California.
- 85.3 Apprentices: Sections 1777.5, 1777.6 and 1777.7 of the Labor Code of the State of California, regarding the employment of apprentices is applicable to this Contract and the contractor shall comply therewith if the prime contract involves Thirty Thousand Dollars [\$30,000.00] or more or twenty (20) working days, or more; or if contracts of specialty contractors not bidding for work through the general or prime contractor are Two Thousand Dollars [\$2,000.00] or more or Five (5) working days or more. Information relative to apprenticeship standards, contributions, wage schedules and other requirements may be obtained from the State Director of Industrial Relations or from the Division of Apprenticeship Standards.
- 85.4 Workday: In the performance of this Contract, not more than eight (8) hours shall constitute a day's work, and Contractor shall not require more than eight (8) hours of labor in a day from any person employed by him hereunder except as provided in Section 11.4.2 above. Contractor shall conform to Article 3, Chapter 1, Part 7 (Sections 1810 et seq.) of the Labor Code of the State of California and shall forfeit to the OCFA as a penalty, the sum of twenty-five Dollars (\$25.00) for each worker employed in the execution of this Contract by Contractor or any Subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one week in violation of said Article. Contractor shall keep an accurate record showing the name and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Project.
- 85.5 Record of Wages; Inspection: The Contractor and each subcontractor performing any portion of the work under the Contract Documents shall keep an accurate record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor in connection with the work. Said payroll records shall be certified and shall be available for inspection at the principal office of the Contractor on the basis set forth in Labor Code Section 1776. The Contractor shall file a certified copy of said payroll records with the OCFA within ten days after receipt of a written request therefor from Project Manager or otherwise from the OCFA. The Contractor shall inform the OCFA of the location of said payroll records, including the street address, City and State, and shall, within five working days, provide a notice of change of location and address of said payroll records. It shall be the responsibility of the Contractor to ensure the compliance with the provisions of this Section 85 and the provisions of Labor Code Section 1776. In the event of noncompliance with the requirements of this Section or the requirements of Labor Code Section 1776, the Contractor shall have ten days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply. Should noncompliance exist after said ten-day period, the Contractor shall, as a penalty to the OCFA, forfeit Twenty-five Dollars (\$25) for each calendar day, or portion thereof, for each worker to whom the noncompliance pertains until strict compliance is effectuated. The Contractor acknowledges that, without limitation as to other remedies of enforcement available to the OCFA, upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the California Department of Industrial Relations, such penalties shall be withheld from progress payments then due the Contractor.

- 85.6 Pursuant to California Labor Code Section 1771.4, Contractor's services are subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall post job site notices as prescribed by DIR regulations and furnish the records specified in California Labor Code Section 1776 directly to the Labor Commissioner in the manner prescribed by California Labor Code Section 1771.4(a)(3) and (c)(2).

## **86 SAFETY & HEALTH**

- 86.1 The General Contractor (the Contractor) shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all precautions and follow all procedures for the safety of, and shall provide all protection to prevent injury to, all persons involved in any way in the Work and all other persons, including, without limitation, the employees, agents, guests, visitors, invitees and licensees of OCFA who may be involved. These precautions shall include, but in no event be limited to the:

- (1) Provisions of Local, State and Federal Regulations.
- (2) Posting of danger signs and personal notification to all affected persons of the existence of a hazard, of whatever nature.
- (3) Furnishing and maintaining of necessary traffic control barricades and flagman services.
- (4) Use or storage of required explosives or other hazardous materials only under the supervision of qualified personnel.
- (5) Maintenance of adequate quantities of operable fire protection equipment at the Work Site, as required by Local and /or State regulations.

- 86.2 The Contractor shall set forth in writing its site specific safety precautions and programs in connection with the Work, including an Anti-Substance Abuse Program which meets or exceeds any and all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to the:

- (1) California Occupational Safety and Health Act of 1973, as amended, and rules and regulations now or hereafter in effect pursuant to said Act.
- (2) California Code of Regulations, Title 8, as amended.
- (3) The Labor Code of the State of California, as amended.
- (4) Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act.
- (5) Code of Federal Regulations, Title 29, as amended.
- (6) The Drug-Free Workplace Act of 1988.
- (7) In the event of conflicting requirements, the more stringent shall govern and if requested by OCFA, submit the same to OCFA for review. OCFA may, but shall not be obligated to, make suggestions and recommendations to the Contractor. OCFA shall review and approve the Contractor's Site Specific Program.

- 86.3 All work, whether performed by the Contractor or its Subcontractors, of all tiers or anyone directly or indirectly employed by any of them, and all equipment, machinery, materials, tools and like items incorporated or used in the Work, shall be compliance with and conform to:

- (1) All applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act, and California Code of Regulations, Title 8, as amended; and,

- (2) All codes, rules, regulations and requirements of OCFA and its insurance carriers relating thereto. In the event of conflicting requirements, the more stringent shall govern.
- 86.4 The Contractor shall designate a responsible and qualified member of its organization at the Work Site who has the authority to enforce the Contractor's Safety and Anti-Substance Abuse Programs, to assure compliance with Paragraph 10.1 and to prevent accidents.
- 86.5 The Contractor shall have a safety representative. The Contractor's safety representative will have:
- (1) The authority to stop work when safety problems are identified.
  - (2) The authority to implement corrective actions.
  - (3) Extensive training in safety and loss control practices regarding the Contractor's type of work.
  - (4) Certification in the OSHA Construction Outreach 10/30 Hour Program.
  - (5) Certification in first aid and CPR.
- 86.6 The Contractor shall require its Subcontractors of all tiers to designate a competent and responsible safety representative to assist the Contractor's representative in the performance of his or her duties.
- 86.7 Should the Contractor fail to provide a safe work environment in accordance with the provisions in 10.1.1, OCFA or Project Manager shall have the right, but not the obligation, to suspend Work in the unsafe area, as specified in 10.6. All costs of any nature resulting from the suspension, by whomsoever incurred, shall be paid by the Contractor.
- 86.8 After a Contractor has been awarded the construction contract for the Project, it will be required to attend a pre-construction safety meeting. The purpose of the meeting is to review the Project's Safety Program and requirements. At this time, specific safety concerns related to the Contractor's work will be discussed.
- 86.9 If deemed necessary by the Project Manager or Project Safety Coordinator, or other OCFA representative, a written Job Safety Analysis (JSA) will be required of the Contractor. The JSA will be required for frequency and severity exposures such as steel erection, deep excavations, spray painting, crane handling of large/expensive equipment, etc. This is to ensure that appropriate controls are established prior to work beginning.
- 86.10 Workplace violence (Type III), verbal intimidation or threats to the Project Manager, OCFA or designee will result in immediate removal from the Project. Contractor shall develop and implement a workplace violence policy and procedure.
- 86.11 The Contractor shall provide, or cause to be provided, each worker on the Site the proper safety equipment for the duties being performed by that worker and will not permit any worker on the Site who fails or refuses to use the same. OCFA and/or Project Manager shall have the right, but not the obligation, to order the Contractor to send a worker off the Site for the day or to require the contractor to not allow the worker any further work on OCFA's site for his or her failure to comply with safety practices, with which order the Contractor shall promptly comply.
- 86.12 **Safety Indemnification.** The Contractor shall defend, indemnify, and hold the Project Manager, OCFA, and their respective officers, directors, agents, employees, and assigns harmless from and against any and all liability, public or private, penalties, contractual or otherwise, losses, damages, costs, attorneys' fees, expenses, causes of action, claims or judgments resulting either in whole or in part from any failure of the Contractor, or its

Subcontractors, of all tiers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, to comply with provisions of the Project Manual, including but not limited to all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, all Cal/OSHA laws and regulations and the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to thereto. The Contractor shall not be relieved of its responsibilities under this Subsection should OCFA act or fail to act pursuant to its rights hereunder, nor shall OCFA thereby assume, nor be deemed to have assumed, any responsibilities otherwise imposed on the Contractor by this Contract, by virtue of providing OCFA's Safety Policies & Procedures, or any other manner whatsoever.

86.12.1 The Contractor shall not raise a defense as to its obligation to indemnify under Subsection 86.12 above any contributing negligence of any of those indemnified hereunder, its being understood and agreed that no such contributing negligence shall relieve the Contractor from its liability to so indemnify nor entitle the Contractor to any contribution, either directly or indirectly, by those indemnified hereunder.

86.12.2 In any and all claims against those indemnified hereunder by any employee of the Contractor or its Subcontractors of all tiers, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Section 86.12 shall not be limited in any way to any limit on the amount or type of damage, compensation or benefits payable by or for the Contractor or its Subcontractors of any tiers under any Worker's Compensation Acts, Disability Benefit Acts or other Employee Benefit Acts.

86.13 In connection with the performance of this contract, OCFA shall have the authority to enter the worksite at any time for the purpose of identifying the existence of conditions, either actual or threatened, that may present a danger or hazard to any or all employees. Contractor agrees that OCFA, in its sole authority and discretion, may order the immediate abatement of any and all conditions that may present an actual or threatened danger or hazard to any and all employees at the worksite. Contractor acknowledges that provisions of Section 6400 of the California Labor Code, which requires that employers shall furnish employment and a place of employment that is safe and healthful for all employees working therein. In the event OCFA identifies the existence of any condition that presents an actual or threatened danger or hazard to any or all employees at the worksite, OCFA is hereby authorized to order the immediate abatement of that actual or threatened condition pursuant to this Section. OCFA may also, at its sole authority and discretion, issue an immediate stop work order to Contractor to ensure that no employee working at the worksite is exposed to a dangerous or hazardous condition. Any stop work order issued by OCFA to Contractor in accordance with the provisions of this Section, shall not give rise to any claim or cause of action for delay damages by Contractor or Contractor's agents or subcontractors against OCFA.

## **87 Non-Discrimination**

87.1 Contractor covenants that, by and for itself, successors, and assigns, including its Subcontractors and suppliers, that there shall be no discrimination against or segregation of, any person or group of persons on account of race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry in the performance of this Contract. Contractor shall take steps to ensure that applicants for any job and that employees are treated without regard to their race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry in full compliance with applicable federal, state, and local laws and regulations.

- 87.2 Contractor shall not engage in, nor permit its agents, including its Subcontractors and suppliers, to engage in discrimination in employment of persons or provision of services or supplies, on the grounds of race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry.
- 87.3 Contractor, and Contractor's Subcontractors and suppliers, shall employ fair employment practices with regard to all employees and all applicants for employment and shall act in accordance with all applicable federal, state, and local laws and regulations relating to such fair employment practices. In furtherance of such obligation, Contractor agrees that Contractor, Subcontractors, and suppliers shall not discriminate in employment and/or provision of services under this Contract and all employment practices shall be without regard to a person's race, color, creed, religion, gender, national origin, age, ancestry, physical handicap, medical condition, marital status, all in accordance with applicable federal, state, and local laws or regulations. Fair employment practices shall include, but not be limited to, employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other form of compensation and selection for training including apprenticeship.
- 87.4 In the performance of the terms of the Contract Documents, Contractor agrees that Contractor will not engage in nor permit such subcontractors as Contractor may employ to engage in discrimination against any employee or applicant for employment on the basis of race, sex, color, religion, ancestry, national origin, marital status, age or as an otherwise qualified handicapped individual. This prohibition shall pertain to employment, upgrading, demotion, or transfer, recruitment advertising, layoff or termination, rates of pay and other forms of compensation, selection for training, including apprenticeship, and any other action or inaction pertaining to employment matters.

## **88 Assignment of Antitrust Actions**

In accordance with Public Contract Code Section 7103.5, by entering into the Contract Documents or into a subcontract to supply goods, services, or materials pursuant to the Contract Documents, the Contractor, or subcontractor, offers and agrees to assign to the OCFA all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract Documents or the subcontract. This assignment shall be made and become effective at the time the OCFA tenders final payment to the Contractor, without further acknowledgment by the parties. The contractor shall cause to be inserted in any such subcontract stipulations to effectuate this Section 88 and the provision of Public Contract Code Section 7103.5.

## **89 Time of Commencement; Time Is of the Essence**

- 89.1 **Commencement:** Contractor agrees to commence the Project within ten (10) calendar days from the date the OCFA's Board approves this Contract, and Contractor shall diligently prosecute the work to Substantial Completion of the Milestones as identified in the Contractor's Construction Schedule and Substantial Completion of the Project no later than the Scheduled Completion Date, excluding modifications for delays caused or authorized by the OCFA as set forth in Section 71.5.
- 89.2 **Construction Schedule:** Within 30 days of the Award of the Contract, Contractor shall furnish to the Project Manager one reproducible, three prints, and an electronic or digital copy in a format approved by the Project Manager of the Contractor's Construction Schedule. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth

the dates that each item will be delivered. The schedule shall establish the order of work which minimizes disruption of existing travel lanes. Upon submission by Contractor, and approval by the Project Manager, the Contractor's Construction Schedule shall be attached to Project Manual as an Exhibit and shall be deemed the baseline schedule. The Contractor's Construction Schedule shall identify and specify scheduling for the Work based on the critical path method (or other scheduling method acceptable to the Project Manager) and updating thereof, and shall provide other schedules that would further the efficient completion of the Project, including the Work and the Related Work in the most expeditious and economical manner. The Contractor's Construction Schedule shall depict in detail the sequence and timing of all activities of the Work and Related Work, including, without limitation, commencement and Completion Dates of Milestones and for all other significant portions of the Work and Related Work. The Contractor's Construction Schedule shall be updated at least monthly, except that the Scheduled Completion Date shall not be changed or modified unless otherwise approved by the Project Manager pursuant to the terms of this Contract.

- 89.3 **Progress Reports:** Concurrently with its submission of Applications for Payment, Contractor shall provide the Project Manager with a report (1) detailing the actual progress of the Work and Related Work as of the date of such report; (2) stating any discrepancies between the actual progress of the Work and Related Work; (3) identifying the progress anticipated by the Contractor's Construction Schedule as of the date of such reports; and (4) stating a recovery schedule to place the Work and Related Work back on schedule, at no cost to the OCFA. The Contractor's Construction Schedule shall include Milestones for each aspect of the Work and the timing for completion of Related Work that could affect completion of the Work by the date listed in the Contractor's Construction Schedule.

89.4 **Acceleration.**

89.4.1 The OCFA reserves the right to accelerate the work of the Contract at any time during its performance. In the event the OCFA directs acceleration, such directive will be given to the Contractor in writing. The Contractor shall keep cost and other Project records related to the acceleration directive separately from the normal Project cost records and shall provide a written record of acceleration costs to the OCFA on a daily basis.

89.4.2 In the event the Contractor believes that some action or inaction on the part of the OCFA constitutes an acceleration directive, the Contractor shall immediately notify the OCFA in writing that the Contractor considers the actions or inactions an acceleration directive. The Contractor shall not accelerate their work efforts until the OCFA responds to the written notification. If acceleration is then directed or required by the OCFA, all cost records referred to in the previous paragraph shall be maintained by the Contractor and provided to the OCFA on a daily basis.

89.4.3 In order to recover additional costs due to acceleration, the Contractor must document that additional expenses were incurred and paid by the Contractor. Labor costs recoverable will only be overtime or shift premium costs or the cost of additional laborers brought to the site to accomplish the accelerated work effort. Equipment costs recoverable will only be the cost of added equipment mobilized to the site to accomplish the accelerated work effort.

- 89.5 **TIME IS THE ESSENCE OF THIS CONTRACT:** NOTWITHSTANDING OCFA'S APPROVAL OF ANY UPDATED CONTRACTOR'S CONSTRUCTION SCHEDULE, THE SCHEDULED COMPLETION DATE SHALL BE STRICTLY ADHERED TO DURING THE TERM OF THIS

CONTRACT. THE SCHEDULED COMPLETION DATE MAY ONLY BE CHANGED AS PROVIDED IN THE CONSTRUCTION CONTRACT.

- 89.6 **Ongoing Responsibility of Contractor:** As required by the Project Manual, Contractor shall prepare and obtain approval of all shop drawings, submittals, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with the Project Manual and Contractor's Construction Schedule. Contractor shall coordinate the Work with the Related Work through the Project Manager, in a manner that will facilitate the efficient completion of the Project in accordance with the Project Manual.
- 89.7 **Control of the Site and Order of Work:** Contractor shall have control of the Site and shall have the right to decide the time or order in which the various portions of the work shall be constructed or installed consistent with the Contractor's Construction Schedule and shall establish the priority of the work of Subcontractors of the Work and the Related Work, and, in general, all matters representing the timely and orderly completion of the Project.
- 89.8 **Cooperation:** Notwithstanding the Scheduled Completion Date, Contractor will cooperate with the OCFA and the OCFA's separate Contractors, consultants, and employees and Contractor agrees to provide for and coordinate access to the Project prior to the Scheduled Completion Date.
- 89.9 **Contractor's Risk Of Non-Performance:** IT IS SPECIFICALLY AGREED THAT CONTRACTOR ASSUMES THE RISK OF NONPERFORMANCE, LATE PERFORMANCE, AND NONCOMPLIANCE WITH THE REQUIREMENTS OF THE PROJECT MANUAL BY CONTRACTOR, CONTRACTOR'S SUBCONTRACTORS, SUPPLIERS, AND AGENTS. CONTRACTOR SHALL NOT BE ENTITLED TO AN EXTENSION OF ANY COMPLETION DATE OF THE SCHEDULED COMPLETION DATE FOR THE ABOVE STATED REASONS OR ANY OTHER REASONS, EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THE PROJECT MANUAL.
- 89.10 **Notification of Inability to Comply:** If the Contractor, at any time, ascertains that for any reason it is unable to complete the phases of the Work by the Milestones, or complete the Project by the Scheduled Completion Date, Contractor shall promptly and without delay notify the Project Manager in writing of this fact.
- 89.11 **Liquidated Damages:** The Parties acknowledge and agree that if Contractor fails to achieve Substantial Completion of the Project by the Scheduled Completion Date or fails to achieve Substantial Completion of a Milestone, as such dates may be extended in accordance with the Project Manual, OCFA will suffer, as a result of Contractor's failure, substantial damages which are both extremely difficult and impracticable to ascertain. Therefore the Parties having reasonably endeavored, but failed, to ascertain an amount bearing a reasonable relationship to the actual damage that OCFA will incur if Contractor fails to achieve Substantial Completion of the Project by the Scheduled Completion Date or fails to achieve completion of a Milestone as such dates may be extended in accordance with the Project Manual, agree that in addition to all other damages to which OCFA may be entitled, Contractor agrees to pay to OCFA as liquidated damages, and not as a penalty but as a reasonable estimate of the amount of damages OCFA will suffer, the amount of Five Hundred Dollars (\$500.00) per day for each calendar day occurring after the completion date of a Milestone during which Contractor fails to achieve Substantial Completion for each such Milestone. In addition, the OCFA shall have the right to charge to the Contractor and to deduct from payments for the Work the actual cost to the OCFA of engineering, inspection, superintendence, and other overhead expenses, which are directly chargeable to the Contract and which accrue during the period of such delay. The expenses and damages described above shall be deducted

from any money due the Contractor under this contract. The Contractor and its sureties shall be liable for any excess cost.

- 89.12 **Additional Remedies:** The Parties also acknowledge and agree that OCFA is entitled to any and all legal and equitable remedies OCFA may have that exceed the amount of Liquidated Damages.

## 90 Audit And Access To Records

- 90.1 Contractor shall maintain all books, records, documents, and other evidence directly pertinent to the performance of the work under this Contract in accordance with generally accepted accounting principles and practices consistently applied. Contractor shall also maintain all financial information and data used by the Contractor in the preparation or support of any cost submission, including the Contractor's original bid required for this Contract, or any Change Order, claim, or other request for any adjustment, and a copy of the cost summary or information submitted to the OCFA. The Project Manager or the Fire Chief shall have access upon twenty-four hours advanced written notice, at all times during normal business hours, to all such books, records, documents, financial information, and all other evidence for the purpose of inspection, audit, and copying. The Contractor shall, at no cost to the OCFA, provide proper facilities for such access, inspection, and copying purposes.
- 90.2 The Parties agree that the provisions of this Section 90 are applicable to Project Manual and all Change Orders, claims, and any other request for adjustment affecting the time or price of this Contract. The Contractor agrees to include the provisions of this Section in all Subcontracts and purchase orders, at any tier, and make this Section 90 applicable to all Change Orders, claims, and other requests for adjustment related to Project performance by Contractor's Subcontractors and suppliers.
- 90.3 Audits conducted under this Section shall be in accordance with generally accepted auditing standards and established procedures and guidelines.
- 90.4 The Contractor agrees to the disclosure of all information and reports resulting from access to records under the provisions of this Section to the OCFA, the Fire Chief, the Project Manager, and any affected or interested state or local agency.
- 90.5 Records under the provisions of this Section shall be maintained and made available during the performance of the Work under this Contract until three years past final payment and until final settlement of all disputes, claims, or litigation, whichever occurs later. In addition, those records which relate to any portion of this Contract to any Change Order, dispute, litigation, settlement of any claim arising out of such performance, or to the cost of items to which an audit exception has been taken, shall be maintained and made available until final payment or final resolution of such dispute, litigation, claim, or exception, whichever occurs later.
- 90.6 These rights to access provisions as provided in this Section apply to all financial records pertaining to this Contract and all Change Orders and claims. In addition, this right to access applies to all records pertaining to all contracts, Change Orders, and any amendments to this Contract: (1) To the extent the records pertain directly to Contract performance; (2) If there is any indication that fraud, gross abuse, or corrupt practices may be involved; or (3) If the Contract is terminated for default or convenience.
- 90.7 Access to records is not limited to the required retention periods. The Fire Chief shall have access to records at any reasonable time for as long as the records are maintained.

**91 Resolution Of Construction Claims**

- 91.1 California Public Contract Code (PCC) section 9204 as adopted by Assembly Bill 626 prescribes a process to present, confer, and mediate construction claims relating to the OCFA's public works project. Notwithstanding any provisions to the contrary in the Project Manual, this section shall govern all disputes to which section 9204 applies.
- 91.2 For purposes of this Section 91, "Claim" means a separate demand by the Contractor sent by registered mail or certified mail with return receipt requested for (A) a time extension, including, without limitation for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project (B) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled, or the amount the payment of which is disputed by the local agency. (PCC 9204(c)(1))
- 91.3 For purposes of this Section 91, "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or another public improvement of any kind.
- 91.4 For any Claim subject to this Section 91, California Public Contract Code section 9204 requires the following:
- 91.4.1 The claim shall be submitted by the Contractor in writing, sent by registered mail or certified mail with return receipt requested and must include the documents necessary to substantiate the claim. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims. However, upon receipt of a claim, the OCFA, and the Contractor may, by mutual agreement, extend the time period provided by statute.
- 91.4.2 For claims of all amounts, the OCFA shall respond within 45 days of receipt of the claim, and provide the claimant a written statement identifying which portion of the claim is disputed and which portion of the claim is undisputed. If the OCFA requires approval from the Board of Directors, and the Board of Directors does not meet within the 45-day period to respond, the OCFA shall have up to three days to issue its response following the Board of Directors meeting.
- 91.4.3 For all portions of a claim determined to be undisputed, the OCFA must process payment to the claimant within 60 days of issuing the OCFA's written determination.
- 91.4.4 If the claimant disputes the OCFA's response, or if the OCFA fails to respond within the time limits provided, the claimant may demand an informal conference to meet and confer for settlement of the issues in dispute. The demand must be sent in writing by registered or certified mail, return receipt requested. Upon receipt of a demand, the OCFA must schedule a meet and confer conference within 30 calendar days for settlement of the disputed claim.
- 91.4.5 Within ten (10) business days following the conclusion of the meet and confer conference, if any portion of the claim remains in dispute, the OCFA shall provide the claimant an addition written statement identifying the portion of the claim that is undisputed and the portion that remains in dispute.

- 91.4.6 For all portions of a claim determined to be undisputed, the OCFA must process payment to the claimant within 60 calendar days of issuing the OCFA's written determination.
- 91.4.7 Any remaining undisputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation in which the parties share the cost evenly. The OCFA and the claimant shall mutually agree on a mediator within ten (10) business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree, each party shall select a mediator and those mediators shall jointly select a qualified, neutral third party to mediate the remaining undisputed claim. Each party shall bear the respective costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside of PCC section 9204.
- 91.4.8 Unless otherwise agreed to by the OCFA and the Contractor in writing, the mediation conducted pursuant to this Section 91 shall excuse any further obligation under PCC Section 20104.4 to mediate after litigation has been commenced.
- 91.4.9 Public Contract Code Section 9204 does not preclude the OCFA from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program if mediation under this section does not resolve the parties' dispute.
- 91.4.10 Should the OCFA fail to respond to a claim, or fail to issue written statements as required, the Contractor's claim is deemed denied. A claim denied by reason of the OCFA's failure to respond shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.
- 91.4.11 Amounts not paid in a timely manner as required by PCC 9204 shall bear interest at seven percent per annum.

## **92 Notice Of Third-Party Claims**

When required by PCC Section 9201, the OCFA will provide timely notification to Contractor of the receipt of any third-party claim relating to the Agreement. The Contractor agrees to reimburse the OCFA for its reasonable costs incurred in providing such notice.

## **93 Cleanup**

- 93.1 The Contractor shall at all times keep the Site clean and free from accumulation of waste materials or rubbish (including, without limitation, hazardous waste), caused by his performance of the Work, and shall continuously throughout performance of the Work remove and dispose of all such materials from the Site and the Project.
- 93.2 Project Manager may require the Contractor to comply with such standards, means and methods of cleanup, removal or disposal as Project Manager may make known to the Contractor. In event the Contractor fails to keep the Site clean and free from such waste or rubbish, or to comply with such standards, means and methods, OCFA may take such action and offset any and all costs or expenses of whatever nature paid or incurred by OCFA in undertaking such action against any sums then or thereafter due to the Contractor.
- 93.3 The Contractor shall notify OCFA in advance of the generation, importation, storage, transportation or disposal, of any hazardous waste, toxic materials or contaminants of any type in connection with the Project. Contractor shall provide Project Manager with Material

Safety Data Sheets (MSDS's) and the Uniform Hazardous Waste documents. The Contractor will develop and implement a written and effective Spill Control and Containment Plan.

#### **94 Trenches and Excavations**

- 94.1 The Contractor shall promptly, and before any of the following conditions are disturbed, notify the Project Manager, in writing, of any:
- (1) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class 1, Class II, or Class III disposal site in accordance with the provisions of existing law; or
  - (2) Subsurface of latent physical conditions at the Site differing from those indicated; or
  - (3) Unknown physical conditions at the Site of unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract and Project Manual.
- 94.2 The Project Manager shall promptly investigate the conditions, and if the Project Manager finds that the conditions materially so differ, or do involve hazardous waste, and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a change order, subject to the provisions of the Project Manual.
- 94.3 In the event that a dispute arises between the Project Manager and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any Scheduled Completion Date provided for in the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes and protests between parties.

#### **95 Uncovering and Correction of Work; OCFA's Right To Carry Out Work**

- 95.1 If any portion of the Work should be covered contrary to the instructions or request of Project Manager or the requirements of the Project Manual, the Contractor shall, if required by Project Manager, uncover such portion of the Work for Project Manager's observation and shall replace such Work all at the Contractor's expense.
- 95.2 If any portion of the Work should be covered prior to a specific request for observation or instruction by Project Manager, Project Manager may request to see such Work, and it shall be uncovered by the Contractor. If such Work is found to be in accordance with the Project Manual and without defect, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to OCFA. If such Work is found to be defective or not in accordance with the Project Manual, the Contractor shall bear such costs.
- 95.3 Project Manager shall have the authority to reject any portion of the Work which is defective or does not conform to the Project Manual, and the Contractor shall promptly correct all Work so rejected by Project Manager, whether observed before or after the Date of Substantial Completion and whether or not fabricated, installed or completed. In order that such corrective Work shall not interrupt or delay Contractor's Construction Schedule or the completion date of the Project, the Contractor shall perform such Work according to a schedule therefor established by Project Manager (which may provide that the same be performed on overtime, shiftwork, Saturdays, Sundays and/or holidays), utilizing in the performance thereof such manpower as is necessary to complete the corrective Work in accordance with said schedule. The Contractor shall bear all costs of correcting such rejected

Work including, without limitation, compensation for any additional architectural and engineering services made necessary thereby.

- 95.4 If, within one (1) year after the Completion of the Work (as determined by OCFA) or within such longer period of time as may be prescribed by law or by the terms of any applicable warranty or guarantee required by the Project Manual, any of the Work is found to be defective or not in accordance with the Project Manual, the Contractor shall correct it promptly after receipt of written instructions to that effect from OCFA unless OCFA has previously given the Contractor a written acceptance of such condition.
- 95.5 The Contractor shall remove from the Site all Work which is defective or non-conforming and not corrected under the provisions of these General Conditions unless removal is waived in writing by OCFA.
- 95.6 If the Contractor does not remove such uncorrected defective or non-conforming Work within a reasonable time fixed by written instructions to that effect from Project Manager, OCFA may remove it and store the materials and equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, OCFA may, upon ten (10) additional days written notification to the Contractor, sell such materials and equipment at public or private sale and account to the Contractor for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for any additional architectural and engineering services and attorneys' fees made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then or thereafter due to the Contractor are not sufficient to cover such difference, the Contractor shall, upon demand, pay the same to OCFA. The obligations of the Contractor under this Subsection shall be in addition to, and not in limitation of, any obligations imposed on it by law, by any other provision of this Contract or by any warranty or guarantee under this Contract.
- 95.7 If the Contractor fails to correct any defective or non-conforming Work, OCFA may correct it with its own forces or by contract with a third party contractor. In the event of a defect found after final acceptance of the Work by OCFA which the Contractor is obligated to correct pursuant to Project Manual, OCFA may, at its option, after giving the Contractor an opportunity to correct such defect, cause such corrective Work to be performed by others and charge the Contractor with the cost thereof. Such charge shall be due and payable by the Contractor upon demand.
- 95.8 If the Contractor defaults or neglects to carry out the Work in accordance with the Project Manual or fails to perform any provision of this Contract, and such default, neglect or non-performance shall continue for a period of 48 hours after written notification thereof from OCFA (or if such default, neglect or non-performance cannot be reasonably remedied within such 48-hour period, and Contractor does not (in the sole determination of OCFA) undertake in good faith the remedy of the same within said period and thereafter proceed diligently to completion), then OCFA may, without prejudice to any other remedy OCFA may have, make good such deficiencies; provided, however, that in the event of an emergency, as determined by OCFA, no notification shall be required. OCFA shall have the right to take possession of such portion of the Site as will enable it to make good such deficiencies and, in connection therewith, to utilize the materials, equipment, tools, construction equipment and machinery of the Contractor located on the Site. If OCFA makes good any such deficiencies, the costs of correcting the same including, without limitation, compensation for additional architectural and engineering services made necessary by such default, neglect or non-performance, shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then

or thereafter due to the Contractor are not sufficient to cover such costs, then the Contractor shall, upon demand, pay the difference to OCFA.

- 95.9 If OCFA prefers to accept defective or non-conforming Work, it may do so instead of requiring its removal and correction, in which case an appropriate amount shall be offset against any amounts then or thereafter due to the Contractor; or, if the said appropriate amount of offset is determined after final payment (or if there is not then or thereafter due to the Contractor an amount sufficient to cover the offset available to OCFA), the Contractor shall, upon demand, pay the appropriate amount (or the difference after offset, as applicable) to OCFA.

## **96 Plans, Specifications and Survey**

The Contractor shall maintain a control set of Plans, Specifications and survey on the Project site at all times. All final locations determined in the field by survey, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show the as-constructed conditions. Upon completion of all work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement has been met.

## **97 Permits**

OCFA will reimburse the Contractor for the public agency-charged fee for permits, inspections. No profit amount shall be added to such reimbursement.

## **98 Compliance with Laws; Non-Discrimination**

Contractor shall ensure that its officers, employees, agents, contractors, and subcontractors: (1) conduct themselves in compliance with all applicable laws and licensure requirements including, without limitation, compliance with laws applicable to nondiscrimination, harassment, and ethical behavior, throughout the duration of the Contract; and (2) comply with all OCFA, State, and Federal, Local Agency and Regulatory Agency orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Failure to file any report due under said orders will result in suspension of periodic progress payments. The Contractor shall ensure unlimited access to the job site for all equal employment opportunity compliance officers.

## **99 Right-Of-Way And Easements**

In the event any required easements have not yet been acquired by the OCFA, the Contractor shall conduct its operation so as to confine its work to the limits of the existing right-of-way.

## **100 Disputed Work**

Contractor shall keep all records of disputed work in accordance with the General Conditions. In any case where the Contractor believes extra compensation is due the Contractor for work or materials not clearly covered in the Contract, or not ordered by the OCFA as "extra work", the Contractor shall notify the OCFA in writing of the Contractor's intention to make claim for such extra compensation before the Contractor begins the work on which Contractor bases the claim. All "claims" as that term is defined in Public Contract Code section 9204 shall be submitted and processed in accordance with Section 91 hereinabove. Such notice by the Contractor, and the fact that the OCFA has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim. The validity of the claim must be determined by the OCFA. If the OCFA determines that all or a portion of the claim is well founded, the valid portion shall be allowed and paid for as "extra work"; if the OCFA determines that all or a portion of the claim is not well founded, the portion that is not well founded shall be disallowed and not paid, subject to Section 91. Nothing herein limits the authority of the OCFA to consider, approve or disapprove of Change Orders in accordance with the Project Manual.

**101 Time of Completion.**

Work will be deemed completed on the same date when the Notice of Completion is recorded with the County of Orange.

**102 Delivered Materials.**

Materials and equipment delivered but not incorporated into the work shall not be included in the estimate for progress payment.

**103 Mobilization.**

103.1 Mobilization shall consist of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies, and incidentals to the Project site; for the establishment of all offices, buildings and other facilities necessary for the work on this Project; and for all other work and operations which must be performed or cost incurred prior to beginning work on the various contract items on the Project site. Mobilization is deemed to include all aspects of mobilization and de-mobilization work occurring during the life of the Project for any reason.

103.2 Full compensation for mobilization shall be included in the Contract lump sum price bid for Mobilization and shall include full compensation for all costs incurred by the Contractor for doing all the work involved in mobilization as specified herein, and no additional compensation will be allowed. Mobilization shall not exceed 5% of the entire bid, excluding mobilization and as shown in the Proposal Bid Sheet.

**104 Facilities For Contract Personnel.****104.1 Extended Field Office Overhead Cost.**

104.1.1 Within fourteen (14) calendar days after receipt of the Notice to Proceed, the Contractor shall submit a written statement to the OCFA detailing its field office overhead costs which are time related. The OCFA will review this first cost submittal and reach a written agreement with the Contractor on a daily field office overhead cost rate which shall be memorialized in a no cost change order. The daily rate agreed to in this change order will be applicable throughout the duration of the Contract. No field office costs will be paid until such an agreement is reached between the OCFA and the Contractor and the change order concerning this daily rate is executed by both parties. Progress payments will be withheld pending receipt of the above-referenced cost submittal and executed change order.

104.1.2 The individual cost components of the daily field office overhead rate shall represent costs which increase as a direct result of any time extension caused solely and exclusively by an act or omission of the OCFA. This listing may include such cost items as on-site project management, supervision, Engineering and clerical salaries; on-site utilities and rent; on-site company vehicles and their operating expenses; and site maintenance and security expenses. Field office overhead costs which are unaffected by increased time shall not be allowable cost in calculating the daily field office overhead rate. These non-time related costs include, but are not limited to, acquisition and installation of stationary equipment; temporary construction facilities; utilities and office furnishings (unless such items are rented or leased); the preparation of the site

including clearing, grubbing, grading, fencing, mobilizations and demobilization costs; and the costs of permits, bonds and insurance coverage for the Project.

104.1.3 The individual wage cost components used to calculate the daily field office rate shall be supported by actual employee payroll records, not salary ranges or estimates. Hourly rates for management, supervisory, engineering, and clerical employees shall be based upon 2080 work hours per year and shall not include allowances for holidays, vacations, or sick time.

104.1.4 When applicable, the daily field office overhead rate shall be multiplied by the number of days the Contract is delayed or extended by change order and shall be added to the agreed upon change order cost. The days of delay shall be those caused solely by the acts or omissions of the OCFA and documented by a time impact analysis prepared and submitted by the Contractor. In the event a deductive change order is issued which reduces time under the Contract, the daily field office overhead rate shall be used to calculate the deductive amount. No allowance for overhead costs and no profit allowance shall be added to the extended field office overhead cost.

#### **105 OCFA Officers And Employees; Non-Discrimination**

105.1 No member, officer, member of the OCFA Board of Directors, or employee of the OCFA shall be personally liable to Contractor, or any successor in interest, in the event of any default or breach by OCFA or for any amount which may become due to Contractor or to its successor, or for breach of any obligation of the terms of this Contract.

105.2 Pursuant to the provisions of the OCFA's conflict of interest code, the Political Reform Act as set forth in Government Code Section 81000 et seq., and/or the prohibition against self-dealing in contracts as set forth in Government Code Section 1090 et. seq., the Parties acknowledge that no officer or employee of the OCFA, or any member of the OCFA Board, shall have any personal interest, direct or indirect, in this Contract or any Subcontract under the Contract, nor shall any such officer, employee, or member of the OCFA Board participate in any decision relating to the Contract which effects his or her personal interest or the interest of any corporation, partnership, or association in which he or she is, directly or indirectly, interested. In the furtherance of such acknowledgement, Contractor:

- i. Contractor agrees that no officer, employee, member of the OCFA Board of Directors, agent, or assignee of the OCFA having direct or indirect control of any monies allocated by OCFA to finance this Project, shall serve as an officer, director, employee, or agent of Contractor, or as a officer, director, employee, or agent of any Subcontractor of supplier of Contractor under this Contract; and
- ii. Any conflict or potential conflict of interest of any officer, director, employee, or agent of Contractor or any Subcontractor or supplier of Contractor has been fully disclosed to the OCFA prior to execution of this Contract and such disclosure shall be deemed a part of this Contract.

105.3 Contractor shall not expend any funds for the purpose of influencing or attempting to influence an officer, member, employee, or member of the OCFA Board in the connection with the awarding and the administration of this Contract or any subcontract in furtherance of the Project.

**106 Entire Agreement**

It is agreed that this Contract (which incorporates the Project Manual) represents the entire agreement. It is further agreed that the Project Manual is incorporated in this Contract by this reference, with the same force and effect as if the same were set forth at length within the Contract, and that Contractor and Contractor's officers, employees, agents, trades, material suppliers, and Subcontractors will be and are bound by any and all of said Project Manual insofar as they relate in any part or in any way, directly or indirectly, to the work covered by this Contract.

**107 Written Notices**

Any written notice required to be given in any part of the Contract Documents shall be performed by dispatching the same via email directed to the email address of the Contractor as set forth in the Contract Documents, and to the OCFA addressed as follows:

- A. Sara Kennedy, Purchasing Division Manager  
Orange County Fire Authority  
1 Fire Authority Rd.  
Irvine, CA 92602
- B. Thomas C. Garcia  
Facilities Protection Systems  
1150 W Central Ave #D  
Brea, CA 92821

**108 Miscellaneous Provisions**

- 108.1 Assignment: Contractor shall neither delegate its duties or obligations, nor assign its rights with respect to this Contract, either in whole or in part. Any such attempted delegation and/or assignment shall be void and deemed void at such occurrence, if it were to occur.
- 108.2 Computation of Time: When any period of time is referred to in the Project Manual by days, it shall be computed to exclude the first and include the last day of the period, provided, however, that if the last day of the period falls on a Saturday, Sunday, or legal holiday, that day shall be omitted from the computation. "Days" refers to calendar days unless otherwise expressly provided.
- 108.3 Remedies Cumulative: No remedy herein reserved to OCFA is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to any other given in the Project Manual as now or hereafter existing or at law, equity, or by statute.
- 108.4 Nonwaiver: The failure of the OCFA to notify the Contractor of any default under the Project Manual shall not be deemed to be a waiver by OCFA of any continuing default by Contractor of any term, covenant, or condition set forth in this Contract, nor of the OCFA's right to declare a default for any such continuing breach, and the failure of OCFA to insist upon strict performance of any of the terms, covenants, or conditions of the Project Manual, or to exercise any option in the Project Manual in any one or more instances, shall not be construed as a waiver or relinquishment of any such terms, covenants, conditions or options, but the same shall be and remain in full force and effect.
- 108.5 Severability: In case any one or more provisions set forth in the Project Manual shall for any reason be held invalid, illegal, or unenforceable in any respect, any such invalidity,

illegality, or unenforceability shall not affect any other provision of the Project Manual, and the Project Manual and this Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been incorporated therein so long as the deletion of such provision does not, in the OCFA's judgment, materially alter this Contract.

- 108.6 No Third Party Beneficiaries: The Project Manual and this Contract are not intended and shall not be deemed or construed, to confer any rights, powers, or privileges on any person, firm, partnership, corporation, or other entity not a party to this Contract except as may be expressly provided in the Contract to the contrary.
- 108.7 No Verbal Agreements: No verbal order, objection, claim, or notice by any party to the other shall affect or modify any of the terms or obligations contained in this Contract or the Project Manual, and none of the provisions of the Project Manual shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or Modification in writing and executed in the manner required in this Contract by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.
- 108.8 Counterparts: This Contract may be executed in any number of counterparts, and each of such counterparts for all purposes shall be deemed to be an original, and all of such counterparts should constitute one and the same agreement.
- 108.9 Governing Law/Venue: The Contract, including the Project Manual, shall be governed by the laws of the State of California. Venue for all disputes related to the Project, the Contract Agreement and/or the Project Manual shall be in Orange County, California.
- 108.10 Services Prior to Execution: Notwithstanding the fact that this Contract is executed as of the date first set forth above, the Parties recognize that a portion of the Work required under the Project Manual may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of this Contract and shall be deemed to be a part of the Work. Without limiting the foregoing, all of Contractor's liabilities and obligations to OCFA under the Project Manual shall apply to all Work and services provided by the Contractor for the Work prior hereto, notwithstanding the fact that the Work may have been performed prior to the date hereof pursuant to prior negotiations, representations, agreements, understandings, or otherwise.
- 108.11 Survival of Rights: Any indemnity, warranty, guarantee given by the Contractor to the OCFA under this Contract shall survive the expiration or termination of this Contract and shall be binding upon Contractor until any action under this Contract is barred by the applicable statute of limitations.
- 108.12 Notice: All notices (whether or not designated as such herein) which are required under this Contract to be given between the parties pursuant to this Paragraph shall be in writing and deemed given and, unless otherwise provided herein, effective when delivered personally to an officer of the party to be served (including the Contractor's Project Manager, in the case of the Contractor), when deposited in the United States mail, or in a sealed envelope, with postage thereon prepaid, sent by registered or certified mail, return receipt requested, and addressed to the appropriate party at the address set forth in the Contract or such other address as may be designated by either party hereto by notice to the other, or when transmitted by wire or facsimile to the appropriate party at the aforesaid address (a complimentary confirming letter shall also be mailed to the appropriate party on the same date).

- 108.13 Maintenance of Harmonious Relations: The Contractor is hereby advised that any portion of the Project, or other projects in proximity to the Project may be subject to, and governed by, certain union or trade agreements. It is the policy of OCFA to promote and maintain harmonious relationships in connection with the Project. The Contractor and its Subcontractors and Sub-subcontractors shall follow this policy; and shall utilize only qualified persons or organizations in the performance of the Work. A qualified person or organization is one: which is not likely to promote labor unrest on the Project; which shall abide by all local, state and federal labor and employment relation rules, regulations and laws; whose financial stability is reasonably assured throughout the duration of the Contract; and whose commitments to other projects are not likely to interfere with its ability to perform its portion of the Work efficiently and cost effectively. OCFA reserves the right to disapprove, or to require the removal of, any person or organization who is being considered for, or has received, an award to perform all or a portion of the Work but has failed to demonstrate the willingness or ability to follow this policy.
- 108.14 Union Agreements: Regardless of the expiration of any collective bargaining agreement during the term of this Contract which may affect the Contractor in any of its activities including, without limitation, with respect to the Work or the Project, the Contractor is obligated to man the job and properly and timely perform the Work in a diligent manner. Upon notification of expected or actual labor disputes or job disruption arising out of any such collective bargaining negotiations, the expiration of any union or trade agreement or any other cause, the Contractor and its Subcontractors and Sub-subcontractors shall cooperate with OCFA concerning any legal, practical or contractual actions to be taken by OCFA in response thereto and shall perform any actions requested by OCFA to eliminate, neutralize or mitigate the affects of such actions on the progress of the Work and the impact of such actions on the public access to OCFA's facilities. It is the Contractor's obligation, at the Contractor's own cost and expense, to take all steps available to prevent any persons performing the work from engaging in any disruptive activities such as strikes, picketing, slowdowns, job actions or work stoppages of any nature or ceasing to work due to picketing or other such activities, which steps shall include, without limitation, execution of an appropriate project agreement with appropriate unions prohibiting all such activities on or about the Project. Notwithstanding any such occurrences, the Contractor shall not be relieved of its obligation to man the job and properly and timely perform the Work in a diligent manner.
- 108.15 Immigration Reform Control Act: All Contractors, Subcontractors, and Sub-subcontractors must adhere to the Immigration Reform Control Act of 1986 and shall maintain I-9 forms regarding all employees. It is not OCFA's obligation to insure compliance with this law, however, OCFA reserves the right to inspect and copy the Contractor's records in this regard upon request.
- 108.16 General: The captions of divisions, sections, articles, Paragraphs, Subparagraphs, clauses and the like in the Project Manual are for convenience only and shall in no way define the content or limit the meaning or construction of the wording of the divisions, sections, articles, Paragraphs, Subparagraphs, clauses and the like. The parties agree that the Project Manual shall not be construed more strictly against any party regardless of the identity of their drafter. Unless otherwise specified, Section and Subsection references appearing in these General Conditions are to Section and Subsections of the Contract Agreement.
- 108.17 Evidence of Corporate Existence and Good Standing. A corporation to which an award is made may be required, before the Contract Agreement is executed by the OCFA, to furnish evidence of its corporate existence and good standing, of its right to enter into contracts in

the State of California, and that the officers signing the Contract and bonds for the corporation have the authority to do so. (Ref: California Corporations Code section 7214.)

END OF DOCUMENT



**FPS**  
Specialists in Fire Systems



**May 24<sup>th</sup> 2022**

Rothchild Ong

**Orange County Fire Authority**

1 Fire Authority Rd. Irvine, CA 92602

**Ref: OCFA – Room B120 & B121 – EPSMS (Emergency Power Shutdown Management System)**  
1 Fire Authority Rd. Irvine, CA 92602

### **SCOPE OF WORK: EPSMS (Emergency Power Shutdown Management System) EPO**

This system will provide the interface between the Clean Agent Releasing panel and all shutdown circuits. Included with this system price are the following items and services:

- 1 EPSMS Control Panel (20-2047)**
- 1 Keyed Emergency Power OFF with Light (Red) 20-1402**
- 1-Lot Monitoring Relays (Trouble & EPO activation)**
- 1 Keyed Disable Override Switch**
- 1 Disable Flashing Light**
- 1 Lot Signage**
- 1 Lot System Consultation, Startup, Testing, Training (FPS Factory Technicians)**
- 1-Lot Engineered Shop Drawings**

### **Cost Breakout: EPSMS Emergency Power Shutdown Management System**

<b>EPSMS Panel: (x2)</b>	<b>\$12,992.00</b>
<b>Engineering Submittals:</b>	<b>\$3,600.00</b>
<b>Start-up &amp; Commission:</b>	<b>\$2,800.00</b>
<b>CONDUIT ADDER IF DESIRED, (EPO/Electrician typically will run these conduits)</b>	<b>\$10,220.00</b>

### **Qualifications:**

1. Installation not included
2. Pricing based upon Verbal information given
3. Pricing based upon normal weekday work-hours startup and testing
4. This proposal is made for your acceptance within 30 days
5. Factory Trained Labor rates: \$195/hr. STD, \$266/hr. OT, and \$334/hr. DT.
6. Bonds have not been figured into above proposal
7. Billing terms: net 30 based upon invoice
8. We will need complete drawings in order to complete engineering. Drawings will need to show all equipment to be interfaced with EPSMS panel along with panel circuit numbers.
9. Start-up and commission include site visits for consultation, wiring terminations at EPSMS panel, startup/test and training for client.
10. All conduit and interface by others\_

**FPS**

1150 W Central Ave Suite D, Brea, CA 92821 - T: (714) 257-2244 - F: (714) 510-3217 CSL No. 592289 - C-10 & C-16  
ZOOX Fremont: CA System (#. 22-22677)

**www.fpsys.com**

Page 1 of 2

BOD Item 2G, Attach. 3, Page 168



**FPS**  
Specialists in Fire Systems

**Acceptance:**

If the forgoing is acceptable, please return a copy of this proposal authorized individual, as our notice to proceed. The terms and conditions of this proposal are binding if the document is countersigned and returned within 30 days.

Accepted By: \_\_\_\_\_

Company: \_\_\_\_\_

Signed: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

P.O #: \_\_\_\_\_

Proposed By: \_\_\_\_\_

Company: ***Facilities Protection Systems*** \_\_\_\_\_

Signed: \_\_\_\_\_

By: ***Thomas Garcia*** \_\_\_\_\_

Title: ***Account Team Manager*** \_\_\_\_\_

Date: \_\_\_\_\_

**FPS**

# Product Guide



## Fike Model

- 20-2047 EPSMS COMPACT Clean Agent Suppression
- 20-2048 EPSMS COMPACT Pre-Action
- 20-2049 EPSMS COMPACT EPO Only

# Emergency Power Shutdown Management System Compact (EPSMS COMPACT)



Manual P/N: 06-767  
Rev 0, 07/14

<b>DEVELOPED BY</b>	<p>Fike  704 South 10<sup>th</sup> Street  P.O. Box 610  Blue Springs, Missouri 64013 U.S.A.  Phone: (888) 628-FIKE (3453)  (816) 229-3405  Fax: (866) 211-9239</p>
<b>COPYRIGHT NOTICE</b>	<p>Copyright © 2014. All rights reserved.</p> <p>Fike copyrights this manual and products it describes. You may not reproduce, transmit, transcribe, or any part of this manual without express, written permission from Fike.</p> <p>This manual contains proprietary information intended for distribution to authorized persons or companies for the sole purpose of conducting business with Fike. If you distribute any information contained in this manual to unauthorized persons, you have violated all distributor agreements and we may take legal action.</p>
<b>TRADEMARKS</b>	<p>Fike® is a registered trademark of Fike.</p>
<b>PATENT</b>	<p>The design, structure, manufacture, sale, installation and use of EPSMS COMPACT is protected by a U.S. Patent. Any infringement of this Patent will be appropriately prosecuted and will subject the infringer to liability for injunctive relief, compensatory and punitive liability</p>
<b>QUALITY</b>	<p>Fike has maintained ISO 9001 certification since 1996. Prior to shipment, we thoroughly test our products and review our documentation to assure the highest quality in all respects.</p>
<b>WARRANTY</b>	<p>Fike provides a one-year limited manufacturer's warranty on this product. All warranty returns must be returned from an authorized Fike Distributor. Contact Fike's Marketing department for further warranty information.</p> <p>Fike maintains a repair department that is available to repair and return existing electronic components or exchange/purchase previously repaired inventory component (advance replacement). All returns must be approved prior to return. A Material Return Authorization (MRA) number must be indicated on the box of the item being returned. Contact the appropriate Regional Sales Manager for further information regarding product return procedures.</p>
<b>LIMITATIONS OF LIABILITY</b>	<p>Installation in accordance with this manual, applicable codes and the instructions of the Authority Having Jurisdiction is mandatory. Fike can not be held liable for any incidental or consequential damages arising from the loss of property or other damages or losses resulting from the use or misuse of Fike products beyond the cost of repair or replacement of any defective components. Fike reserves the right to make product improvements and change product specifications at any time.</p> <p>While every precaution has been taken during the preparation of this manual to ensure the accuracy of its content, Fike assumes no responsibility for errors or omissions.</p>

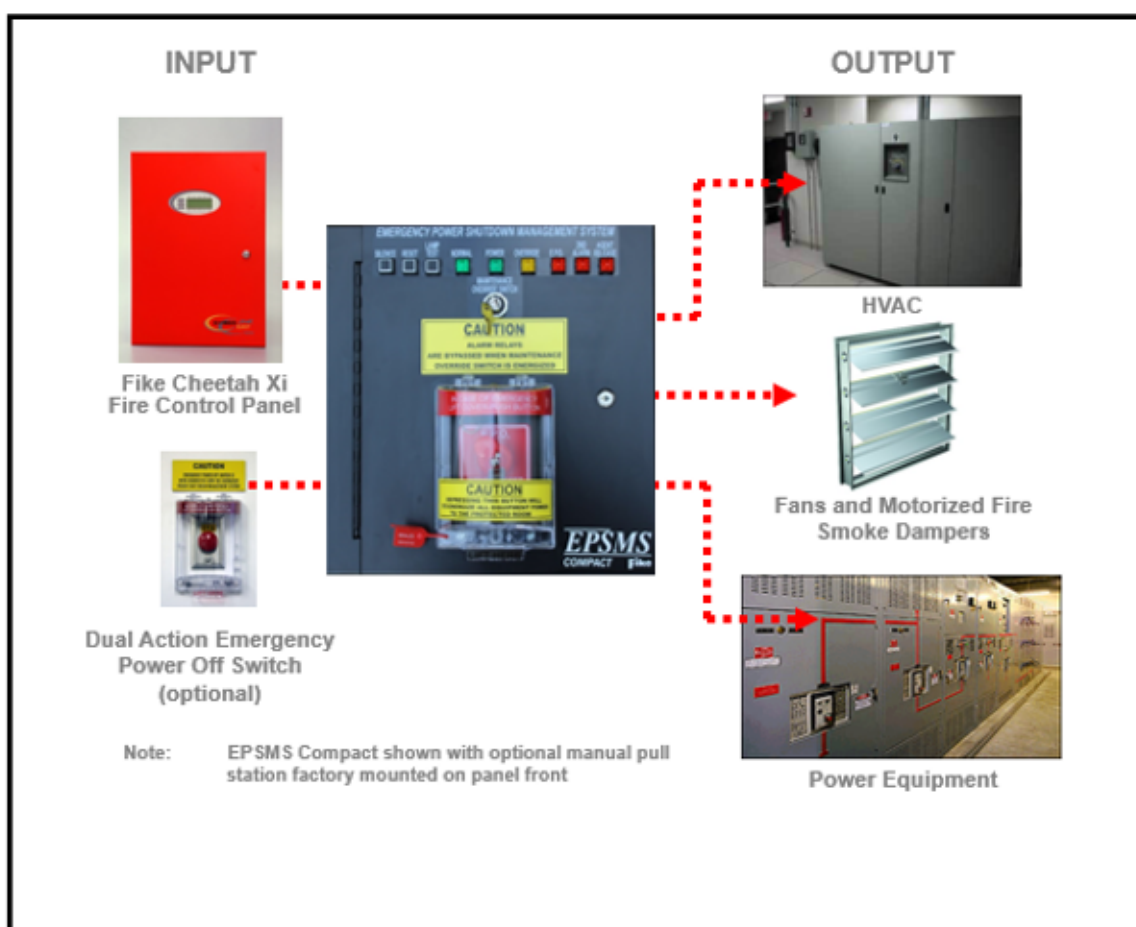
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## 1.1 Fike's EPSMS COMPACT (Emergency Power Shutdown Management System)

Fike's EPSMS COMPACT (Emergency Power Shutdown Management System Compact) is designed to consolidate and control equipment emergency power off in a timely, efficient and coordinated manner. This system improves the reliability of EPO controls—reducing the chance of an accidental activation and expensive interruption to your business. Emergency Power Off (EPO) stations are a safety feature intended to power down information technology (IT) equipment, a datacenter or an entire installation in an emergency such as fire, flood and HVAC failure resulting in overheating of sensitive equipment—thus protecting the facility and personnel. Arguably one of the most important safety features of any IT, data center or equipment room, emergency power off circuitry is increasingly mandated by many local jurisdictions.



### *EPO Controls – an asset or an accident waiting to happen?*

Unfortunately, most emergency power off installations are an afterthought. The EPO is designed, installed and tested in the field at the end of a project, simply to meet minimum code requirements. Often construction documents do not include detailed specifications, standards for quality, wiring schematics or desired sequence of operation. Consequently, most EPO installations end up as decentralized, independent mechanisms—usually comprised of relays located in j-boxes scattered

about the room, access floor and/or above ceilings. Each individual piece of equipment may have to be shut down separately—virtually impossible in times of emergency. In addition, breakers are not easily identified or monitored; wiring diagrams are often not available; and no maintenance bypass switch is installed that would allow an EPO condition to be locked out during routine maintenance. These installations are not easily modified or expanded and are susceptible to expensive false shutdowns.

## **1.2 EPSMS COMPACT is used in many applications to:**

- De-energize equipment during a fire
- Close fire dampers and turn off ventilation and cooling equipment to contain fire and maintain proper concentration of clean agent fire suppression
- Safely shutdown equipment during a flood or sprinkler system discharge
- Help protect fire department personnel from electrocution when fighting a fire

## **1.3 Applications**

- Data Centers
- Telecommunications Facilities
- Industrial Facilities
- Elevator Machine Rooms
- Water Treatment Plants
- Electrical Rooms
- Anywhere there is a need for emergency power shutdown controls

## **1.4 The Solution –The EPSMS COMPACT**

Fike's Emergency Power Shutdown Management System Compact (EPSMS COMPACT) addresses all the concerns of a typical EPO installation and effectively consolidates, controls and monitors all power off circuits. In addition, the UL-listed EPSMS COMPACT system greatly reduces the chance of accidental EPO activation and improves your system restart time if the EPO is activated for any reason. That's peace of mind.

- Consolidates controls in one location
- Includes Maintenance Bypass with Lock Out to prevent accidental activation of the EPO when removing the system from override mode
- Segregates the Power and HVAC shutdown within the control system
- Includes thorough documentation, sequence of operation, clear signage and drawings of the entire control system
- Control panel provides local monitoring and display of functions
- Control panel provides remote monitoring capabilities
- Power to the EPO controls can be monitored by fire control panel as required by NFPA 75
- Can be easily modified or expanded
- Available with remote dual action locking-type EPO switches with protective cover
- Available with on board mounted dual action locking-type EPO switches with protective cover

The Fike EPSMS COMPACT is offered in three different configurations.

### **2.1 Model 20-2047 EPSMS COMPACT Clean Agent Suppression**

This panel is used in an application where a clean agent suppression system is installed. It is designed to be used when the HVAC and power equipment must shutdown at two different times yet when an EPO switch is activated, all equipment must be shut down simultaneously. In this application, the HVAC equipment and fire smoke dampers are shutdown upon smoke detection. The power equipment shuts down when the fire control panel abort countdown cycle expires and the clean agent is discharged. All equipment shuts down simultaneously if a remote EPO station is activated.

### **2.2 Model 20-2048 EPSMS COMPACT Pre-Action**

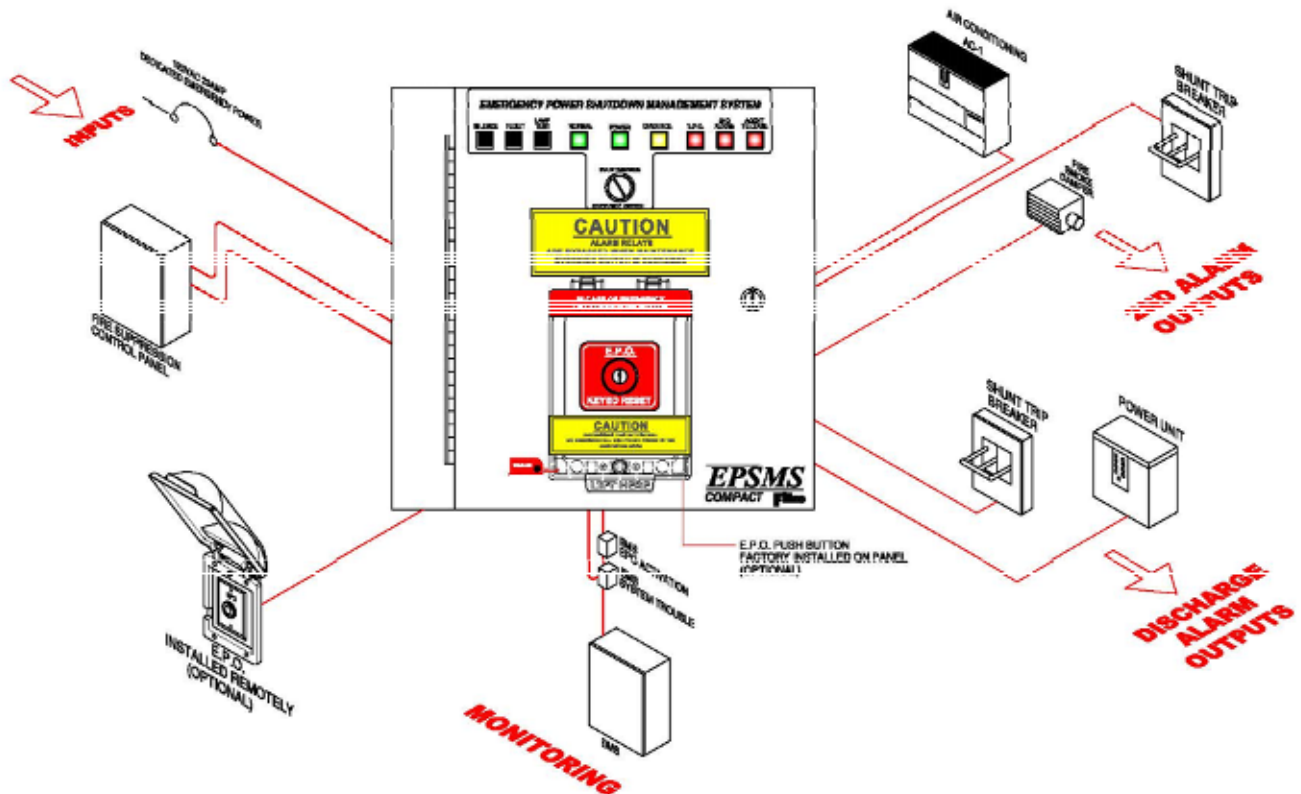
This panel is used in an application where only a wet or pre-action sprinkler system is installed. This panel is designed to be used when the HVAC and power equipment must shutdown at two different times yet when an EPO switch is activated, all equipment must be shut down simultaneously. In this application, the HVAC equipment and fire smoke dampers are shutdown upon smoke detection. The power equipment shuts down when the fire control panel determines that the sprinkler water flow switch is activated. All equipment shuts down simultaneously if a remote EPO station is activated.

### **2.3 Model 20-2049 EPSMS COMPACT EPO Only**

This panel is used in any application where it is required to shutdown equipment when an EPO switch is activated. All HVAC and/or power equipment shuts down simultaneously when a remote EPO station is activated.

### **2.4 Custom Design Service**

In addition to the standard system documentation included in this Product Guide, Fike offers custom design services. The service includes a project specific control riser diagram and scaled floor plan(s) showing point-to-point interconnecting conduit and wiring. Contact the distributor in your area for details.



**General Arrangement Diagram**

### 2.5 Panel Location

It is recommended that the EPSMS COMPACT be located either in the control center or the area that the EPSMS COMPACT serves.

### 2.6 Input power

It is recommended that the input power to the EPSMS COMPACT be a dedicated circuit that will not be shutdown during an EPO or Discharge event.

### 2.7 Maintenance Override with LOCK-OUT Feature

The EPSMS COMPACT is featured with a maintenance override that performs two functions.

1. It inhibits the output relays and shunt trip circuits while the EPSMS COMPACT is placed in the Maintenance Override Mode.
2. It prevents the EPSMS COMPACT from being removed from the Maintenance Override Mode if there are any input signals present that would cause the EPSMS COMPACT to perform a shutdown function.

Most EPO designs include the ability to inhibit, or disable, the panel. However, a properly designed EPO also includes a LOCK-OUT feature that substantially reduces the potential of an accidental EPO activation when conducting EPO maintenance. See Section 4 Operating Procedures for details.

### 2.8 Output Shutdown Relays

The output relays on the EPSMS COMPACT are rated 6AMP @250V. The relays can be used for any typical shutdown control application. Because of the high AMP rating they can be used to interrupt direct line power to the damper circuits thus eliminating the need for remote intervening control relays.

### 2.9 Shunt-Trip Power Circuits

The EPSMS COMPACT is equipped with an internal shutdown shunt trip power circuit for both the "2ND Alarm" and "Discharge" function. Therefore, there is no need for external shunt-trip circuits. The total available output shunt-trip power is 6AMPS.

### 2.10 Keyed Emergency Power Off (EPO) Station

It is recommended that the Fike EPO stations be used with all EPSMS COMPACT applications. The Fike EPO station is furnished with a keyed locking button. The button remains depressed and locks in place when depressed. After an EPO event this feature allows the user to identify which EPO station was activated. The button is protected by a clear flip-up plastic cover and red plastic seal to reduce the possibility of an accidental EPO activation. A caution sign is fixed to the flip of cover as shown. The sign states "**CAUTION DEPRESSING THIS BUTTON WILL DE-ENERGIZE ALL EQUIPMENT POWER TO THE PROTECTED ROOM**".



Optional Features:

Horn (battery operated) that sounds when the protective cover is lifted

EPO Station can be factory pre-installed on the front of the EPSMS COMPACT panel

EPO Station can be installed remotely (multiple EPO buttons can be used)

See DWG. NO. 20-1184 and 20-1405.

## 2.12 Table 1: Traditional EPO vs. Fike's EPO Design

Below is a table summarizing a comparison between typical EPO designs and the Fike EPSMS COMPACT design.

<i>Feature</i>	<i>Traditional EPO Design</i>	<i>Fike's EPO Design</i>
Shop Drawings	No	Yes
Documented Sequence of Operation	No	Yes
Consolidated Controls	No	Yes
Maintenance Override w/ Lock-Out Feature	No	Yes
EPO Button - Dual Action Locking Type	NOT TYPICAL	Yes
Local Monitoring	No	Yes
Remote Monitoring	No	Yes
Power to Controls Monitored by Fire Control Panel According to NFPA 75	No	Yes
System Test Capability	No	Yes
Quality Control Testing	AT THE JOB SITE	PRE-TESTED AND CERTIFIED PRIOR TO DELIVERY
UL Approved	NO	YES
Posted Restart Procedures	NO	YES

Refer to Ordering Information and the enclosed DWG sheets for details.

### 3.1 What's in the Box?

The EPSMS COMPACT is shipped from the manufacturer fully assembled and pre-tested. Inside the box is the EPSMS COMPACT control panel, the Installation, Operation and Maintenance Manual, and panel wiring diagram. Two sets of keys for the control panel, maintenance override switch, and each keyed EPO button (if optional button(s) ordered) are included. The keys to the control panel are taped to the outside of the back box. The EPO keys are inside the control panel stored in a black magnetic key holder labeled "EPO Keys" when the EPO button is purchased as part of the EPSMS COMPACT panel. If the EPO button is purchased separately for remote installation, the keys for the keyed EPO button are shipped inside the box the EPO switch is packaged in. Optional equipment and accessories may be shipped separately. Verify your order with the packing list and immediately report any discrepancies to the distributor before you install the equipment.

### 3.2 Mounting the Control Panel

The EPSMS COMPACT interior controls are mounted on a single back plate that can be easily removed from the enclosure. To remove the back plate, first remove the left and right side panduit covers. Then remove the four Phillips head screws that secure the back plate to back box. Then remove the three nuts and lock washers that attach the door to the back box. The door electronics and the enclosure controls are connected with a wire harness. **DO NOT** disconnect the wire harness. Instead, remove the door, wire harness and controls/back plate as one assembly and place it in a safe place while mounting the back box.

The EPSMS COMPACT enclosure can be flush or surface mounted. When flush mounting the EPSMS COMPACT, be sure that the back box protrudes a minimum of one inch (1") past the finished wall surface to allow proper clearance to re-mount the door assembly. The outside dimension of the door is larger than that of the back box. The door acts as a cosmetic trim when the door is mounted and closed. Be sure to allow for the door clearance when mounting the enclosure.

Conduit penetrations should enter the enclosure from the top, bottom or right side.

Refer to DWG. NO. 20-2056 for enclosure mounting details.

### 3.3 Control Panel Terminations

The EPSMS COMPACT is furnished with panduit raceways dedicated for field wiring. We highly recommend all field wiring be routed through these raceways. Refer to the system wiring diagram DWG. NO. 20-2047, DWG. NO 20-2048 and DWG. NO. 20-2049 for details.

### 3.4 Optional Equipment

For the installation details and wiring of optional equipment, please refer to the optional equipment details contained in this manual.

To prevent accidental shutdown of your equipment or damage to the EPSMS COMPACT, please read all the operating instructions and thoroughly familiarize yourself with the EPSMS COMPACT BEFORE powering up the EPSMS COMPACT for the first time.

#### **4.1 Input and Output Sequence of Operation**

The EPSMS COMPACT is designed to operate according to a pre-defined input/output sequence of operation. The Fike EPSMS COMPACT is offered in three different configurations. They are 20-2047 Clean Agent Suppression, 20-2048 Pre-Action and 20-2049 EPO Only. Refer to the enclosed sequence of operation table for the control panel you are using.

#### **4.2 Programming**

The relay controller on the EPSMS COMPACT comes pre-programmed with the sequence of operation of EPSMS COMPACT model purchased. In order to maximize the reliability of the EPSMS COMPACT, the program logic is standardized and thoroughly tested at the manufacturer prior to shipment. The EPSMS COMPACT is a defined use control panel. The program is not intended to be modified in the field. Field modification of the relay controller program voids the manufacturer's warranty. Replacement relay controllers are shipped pre-programmed from the factory to match the model and serial number of the EPSMS COMPACT panel. Submit the model and serial number of EPSMS COMPACT panel (found on the inside of the door) when ordering a replacement controller.

#### **4.3 Powering Up the Panel**

**Caution!** Always place the EPSMS COMPACT in the Maintenance Override Mode before applying power to the EPSMS COMPACT. If any input signals exist when the EPSMS COMPACT is powered on, and the EPSMS COMPACT is not in the Maintenance Override Mode, the corresponding output shutdown function will occur. See the following instructions for Placing the EPSMS COMPACT in Maintenance Override Mode.

When the panel is first powered on, the LEDs on the front panel display will all illuminate and the piezo alert will sound momentarily. After a short startup period, the LEDs will go to the normal state ("Normal" and "Power" LED's lit) and the piezo alert will turn off.

The green status LED on the trouble relay will remain illuminated. This is the normal condition of the trouble relay.

All other relay LEDs will be de-energized and the green status LEDs will not be active.

The green status LEDs on the main and sub relay controllers will flash.

The EPSMS COMPACT is now in the normal condition and ready to operate. If any input signals are active when the EPSMS COMPACT is powered on, and the EPSMS COMPACT is not in the Maintenance Override Mode, the corresponding output shutdown function will occur.

#### 4.4 Keyed Emergency Power Off (EPO) Button Operation

The Fike 20-1184 Keyed Emergency Power Off (EPO) Button is a dual action latching switch. To activate the EPO switch, break the red "Safety" seal, lift the protective flip-up cover and fully depress the red EPO button. The EPO switch will activate and remain activated (latched) until the EPO button is manually reset. To reset the EPO button, insert the EPO key and turn it to the right. The button will release and the EPO switch will return to the normal position. Turn the key back to the left to remove the key.

The Fike 20-1405 Keyed Emergency Power Off (EPO) Button w/ Internal Battery horn (optional) operates exactly the same as the 20-1184 with the exception that when the protective cover is lifted, a micro switch activates a horn. The horn is mounted internally and powered by an on board 9VDC alkaline battery (included installed with shipment).

If an EPO button is used that is not supplied by FIKE, follow the manufacturer's operating procedure for the switch used.

To reset the EPSMS COMPACT after EPO activation, see Resetting the EPSMS COMPACT After a Shutdown Event.

#### 4.5 Resetting the EPSMS COMPACT After a Shutdown Event

**Caution! Determine the cause of the shutdown event and resolve it prior to resetting the EPSMS COMPACT to prevent injury to personnel or damage to equipment.**

To reset the EPSMS COMPACT after an alarm event, you must first clear any input signals. The EPSMS COMPACT is uniquely designed to assist you in quickly locating the source of the shutdown signal. Read the display panel on the front of the EPSMS COMPACT control panel. If the source of the shutdown signal is the fire control panel you must first clear any alarms from the fire control panel and clear the input signal to the EPSMS COMPACT. If the source of the shutdown signal is an EPO switch activation you must locate the EPO switch that activated and reset it if the EPO switch is of a latching type. The standard Fike 20-1184 and 20-1405 Keyed Emergency Power Off Buttons are of the latching type. Non-latching EPO switches may be used and can be custom ordered from Fike.

Once the input signal(s) is cleared, the corresponding input LED will begin to flash. Depress the "Reset" button in the upper left hand corner of the panel. The flashing input LEDs will turn off and the output relays will reset to normal. The EPSMS COMPACT is now in the normal mode. You must then restart your equipment following your documented facility restart procedures. Fike is not responsible for your facility restart procedures and makes no representations as the appropriate and safe procedure for restoring power to your equipment.

#### **4.6 Maintenance Override Key Switch**

From time to time certain work will be conducted in your facility that may cause unintended input signals to be received by the EPSMS COMPACT that may result in an inadvertent activation of output shutdown signals.

Typical examples are:

- Scheduled functional testing of the fire suppression/fire alarm system
- Adds, moves, and changes to your IT environment such as pulling data cables, modifying electrical conduit and wire, adding or removing partition walls, etc.
- Janitorial work such as cleaning under the raised access floor
- Soldering and welding of HVAC components
- Access to your IT environment by untrained personnel

For this reason, the EPSMS COMPACT is equipped with a maintenance override key switch that can temporarily disable the EPSMS COMPACT output shutdown functions.

#### **4.7 Placing the EPSMS COMPACT in the Maintenance Override Mode**

To disable the outputs of the EPSMS COMPACT, turn the maintenance override key switch on the face of the control panel from normal to override. The green "Normal" status LED will turn off and the amber "Override" LED will alternate between flashing and constant illumination in 30-second intervals. The system trouble relay activates when the EPSMS COMPACT is placed in the override mode. It is recommended that the trouble relay be monitored by the fire control panel or other customer monitoring equipment.

If an input signal is received while the EPSMS COMPACT is in the override mode, the appropriate input LED will illuminate and the piezo alert will sound. NO OUTPUT SHUTDOWN RELAYS WILL CHANGE STATE AND THE SHUNT TRIP CIRCUITS WILL NOT BE POWERED WHILE THE EPSMS COMPACT IS IN THE MAINTENANCE OVERRIDE MODE.

#### **4.8 Maintenance Override LOCK-OUT Feature**

If an input signal is received while the EPSMS COMPACT is in the maintenance override mode, the EPSMS COMPACT WILL PREVENT you from placing it back into the normal mode until the input signal(s) is cleared.

**This feature provides a second level of protection against accidental equipment shutdown.**

To place the EPSMS COMPACT back into the normal mode after an input signal is received while in the maintenance mode, first clear the input signal(s).

**Note:** If you place the override switch into the normal position without first clearing the input signals, the green normal LED will illuminate and the piezo alert will activate. The silence button will not silence the piezo alert. You must first return the switch to the override position and proceed with the following steps in order to clear the input signals and reset the panel.

After the input signal(s) is cleared, the corresponding input LED(s) will begin to flash. Next, depress the "Reset" button located in the top right corner. The input signal LED will stop flashing verifying that the input signal(s) is cleared from the EPSMS COMPACT. You can then return the EPSMS COMPACT panel to the normal mode. See Removing the EPSMS COMPACT from Maintenance Override Mode.

### **4.9 Removing the EPSMS COMPACT from the Maintenance Override Mode**

Verify that no input signal lights are illuminated. If any input lights are illuminated refer to Maintenance Bypass LOCK-OUT Feature. If no input signal LEDs are illuminated, turn the maintenance bypass switch on the face of the control panel from override to normal. The piezo alert will sound. Depress the "Reset" button. The green normal LED will illuminate. The system trouble relay will return to normal state. It is recommended that the trouble relay be monitored by the fire control panel or other customer monitoring equipment.

The EPSMS COMPACT is now in the normal mode and if any input signal(s) are received, the EPSMS COMPACT will function normally.

### **4.10 Panel Silence**

Depress the momentary "Silence" button on the face of the panel. The piezo alert will turn off.

In order to ensure the reliability of the EPSMS COMPACT it is recommended that periodic functional testing be performed twice annually. In most cases, functional testing that includes shutting down your HVAC and power equipment is not practical. As an alternative, below is a description of the recommended maintenance procedures.

### **5.1 Loss of Power Test**

1. Remove input power to the EPSMS COMPACT by lifting the input power fuse holder located on terminal 3. The system trouble relay will change state (the green status LED on the trouble relay will extinguish). If the trouble signal is monitored remotely, verify the remote monitoring system receives the trouble signal. Replace the fuse holder and the EPSMS COMPACT will power up. See Powering Up the Panel.

### **5.2 Input Functional Test**

1. With the EPSMS COMPACT in the normal condition, place the EPSMS COMPACT in the Maintenance Override Mode. See Placing the EPSMS COMPACT in the Maintenance Override Mode. The system trouble relay will change state (the green status LED on the trouble relay will extinguish). While in the Maintenance Override Mode, functionally test the remote devices that send input signals to the EPSMS COMPACT such as the fire suppression panel and the EPO stations. Verify that the appropriate LED illuminates on the front panel display.
2. Clear the input signals. See Maintenance Override LOCK OUT feature.
3. Remove the EPSMS COMPACT from the Maintenance Override Mode. See Removing the EPSMS COMPACT from the Maintenance Override Mode.

### **5.3 Lamp Test**

To test the panel display LEDs and piezo alert. Depress the "Lamp Test" button in the upper left hand corner of the panel display. Verify all LED's are illuminated and the piezo alert sounds. Release the button and the panel will return to normal automatically. If a defective component exists, place the EPSMS COMPACT in maintenance mode, power it down, replace the defective component, power up the EPSMS COMPACT, return the EPSMS COMPACT to the normal mode, and repeat the lamp test procedure to verify the repair.

**Note:** The lamp test does not test the Normal LED when the EPSMS COMPACT is in the maintenance override position. To test all LEDs the EPSMS COMPACT must be in the normal mode.

**Exhibit 1      EPSMS Sequence of Operation Matrix Model 20-2047 and 20-2048**

<b>EMERGENCY POWER SHUTDOWN MANAGEMENT SYSTEM COMPACT SEQUENCE OF OPERATION</b> <b>FIKE MODEL 20-2047 EPSMS COMPACT CLEAN AGENT SUPPRESSION AND 20-2048 EPSMS COMPACT PRE-ACTION</b>									
	<b>EPSMS INPUT SIGNAL</b>								
		MAINTENANCE OVERRIDE SWITCH IN NORMAL POSITION							
		FIRE CONTROL PANEL 2ND ALARM ACTIVATED							
		FIRE CONTROL PANEL DISCHARGE ALARM (or Pre-Action model 20-2048) ACTIVATED							
		EMERGENCY POWER OFF (EPO) SWITCH ACTIVATED							
		MAINTENANCE OVERRIDE KEYED SWITCH IN OVERRIDE POSITION (See Note 1.2.3.4.5)							
		LAMP TEST BUTTON ACTIVATED (Note: LEDs shall return to normal condition when lamp test button is released)							
		LOSS OF POWER TO EPSMS CONTROL PANEL							
		SILENCE BUTTON ACTIVATED							
<b>EPSMS OUTPUT SIGNALS/ANNUNCIATION</b>									
"POWER" GREEN LED ILLUMINATES		•	•	•	•	•	•	•	
"NORMAL" GREEN LED ILLUMINATES		•	•	•	•	•	•	•	
"OVERRIDE" AMBER LED ILLUMINATES							•	•	
"2ND ALARM ACTIVATION" RED LED ILLUMINATES			•					•	
2ND ALARM SHUTDOWN RELAYS ENERGIZE AND LATCH			•		•				
2ND ALARM MOMENTARY (5 SECOND) 120VAC SHUNT TRIP CIRCUIT SHALL ACTIVATE			•		•				
ALL INTERCONNECTED 2ND ALARM EQUIPMENT SHALL DE-ENERGIZE			•		•				
"DISCHARGE ( or "PRE-ACTION" model 20-2048)" ACTIVATION LED ILLUMINATES				•				•	
DISCHARGE ( or PRE-ACTION model 20-2048) SHUTDOWN RELAYS ENERGIZE AND LATCH				•	•				
DISCHARGE ( or PRE-ACTION model 20-2048) MOMENTARY (5 SECOND) 120V SHUNT TRIP CIRCUIT SHALL ACTIVATE				•	•				
ALL DISCHARGE ( or PRE-ACTION model 20-2048) EQUIPMENT SHALL DE-ENERGIZE				•	•				
"EPO ACTIVATION" RED LED ILLUMINATES					•			•	
EPO SWITCH MONITORING RELAY ACTIVATED					•				
PIEZO ALERT ACTIVATED			•	•	•			•	
PIEZO ALERT DE-ACTIVATED									•
SYSTEM TROUBLE RELAY ACTIVATED						•		•	

**EMERGENCY POWER SHUTDOWN MANAGEMENT SYSTEM SEQUENCE OF OPERATION  
FIKE MODEL 20-1181 EPSMS BASE PANEL AND 20-1398 EPSMS PRE-ACTION****Notes:**

1. When the maintenance override switch is in the override position, the shunt trip circuits, "2nd Alarm Activation" (or Smoke Alarm Activation (20-1398) , "Discharge Activation" (or Pre-Action Activation (for model 20-1398) and "EPO Activation" relays shall remain in the normal position (locked out) regardless of the input signals received to prevent accidental shutdown of equipment.
2. When the maintenance override switch is in the override position, if any input signal is received, the corresponding "2nd Alarm Activation" (or Smoke Alarm Activation (20-1398) , "Discharge Activation" (or Pre-Action Activation (for model 20-1398) and "EPO Activation" LEDs shall illuminate.
3. When the maintenance override switch is in the override position, if any input signal is received then cleared, the corresponding "2nd Alarm Activation" (or Smoke Alarm Activation (20-1398) , "Discharge Activation" (or Pre-Action Activation (for model 20-1398) and "EPO Activation" LEDs shall flash indicating the input alarm condition is cleared. The output relays and shunt trip circuits shall remain locked out.
4. Once the maintenance override switch is in the override position, the system cannot be returned to "Normal" without activating the reset switch. The reset switch "Unlocks" the maintenance override feature.
5. If the EPSMS panel receives an input signal while in Maintenance Override it cannot be returned to Normal mode and reset until all input signals are cleared. This feature provides a second level of protection against accidental equipment shutdown.

## Exhibit 2 EPSMS Sequence of Operation Matrix Model 20-2049

EMERGENCY POWER SHUTDOWN MANAGEMENT SYSTEM SEQUENCE OF OPERATION MATRIX FIKE MODEL 20-2049 EPSMS COMPACT (EPO ONLY)							
	EPSMS INPUT SIGNAL	MAINTENANCE OVERRIDE SWITCH IN NORMAL POSITION	EMERGENCY POWER OFF (EPO) SWITCH ACTIVATED	MAINTENANCE OVERRIDE SWITCH IN OVERRIDE POSITION (See Note 1,2,3,4,5)	LAMP TEST SWITCH (MOMENTARY) ACTIVATED (Note: Lamps shall return to normal condition when lamp test button is released)	LOSS OF POWER TO EPSMS CONTROL PANEL	SILENCE BUTTON (MOMENTARY) ACTIVATED
<b>EPSMS OUTPUT SIGNALS/ANNUNCIATION</b>							
"POWER" GREEN LED ILLUMINATES		•	•	•	•		
"NORMAL" GREEN LED ILLUMINATES		•	•		•		
"OVERRIDE" AMBER LED ILLUMINATES				•	•		
ALL EPO EQUIPMENT SHALL DE-ENERGIZE			•				
"EPO ACTIVATION" RED LED ILLUMINATES			•		•		
EPO ACTIVATED SHUTDOWN RELAYS ENERGIZE AND LATCH			•				
EPO ACTIVATED MOMENTARY ( 5 SECOND) 120VAC SHUNT TRIP CIRCUIT SHALL ACTIVATE			•				
EPO SWITCH MONITORING RELAY ACTIVATED			•				
PIEZO ALERT ACTIVATED			•		•		
PIEZO ALERT DE-ACTIVATED							•
SYSTEM TROUBLE RELAY ACTIVATED				•		•	

## Notes:

1. When the maintenance override switch is in the override position, the shunt trip circuits and "EPO Activation" relays shall remain in the normal position (locked out) regardless of the input signals received to prevent accidental shutdown of equipment.
2. When the maintenance override switch is in the override position, if any input signal is received, the "EPO Activation" LED shall illuminate.
3. When the maintenance override switch is in the override position, if any input signal is received then cleared, the "EPO Activation" LEDs shall flash indicating the input alarm condition is cleared. The output relays and shunt trip circuits shall remain locked out.
4. Once the maintenance override switch is in the override position, the system cannot be returned to "Normal" without activating the reset switch. The reset switch "Unlocks" the maintenance override feature.
5. If the EPSMS COMPACT panel receives an input signal while in Maintenance Override it cannot be returned to Normal mode and reset until all input signals are cleared. This feature provides a second level of protection against accidental equipment shutdown.

Exhibit 3 EPSMS and EPSMS COMPACT Product Comparison

Feature	EPSMS COMPACT	EPSMS
Available in Clean Agent Suppression, Pre-Action and EPO Only version	•	•
Maintenance Override Keyed Switch w/ Lock-Out Feature	•	•
Remote Maintenance Override Activated Amber Light	N/A	Optional
Remote EPO Button - Dual Action w/ Flip Up Cover, Locking Type	Optional (See Note 1)	Optional (See Note 1)
EPO Button - Dual Action w/Flip Up Cover, Locking Type <u>Factory Mounted on Panel Front</u>	Optional (See Note 1)	N/A
EPO Cover Lifted Horn	N/A	Optional
Local Status LEDS	•	•
Trouble Relay (for remote monitoring)	•	•
EPO Activated Relay (for remote monitoring)	•	•
All Output Relays 120VAC Rated @ 6A 250VAC	•	•
Maximum Output Relays (standard enclosure)	10	14-18 (Depending on Model)
Maximum Output Relays w/Large Enclosure	N/A	40
24VDC Onboard Emergency Battery Power Backup	N/A	Optional
Dual Power Input Power Source	N/A	Optional
Small Enclosure 14 1/2" W X 15"H X 5"D	Standard	N/A
Enclosure 14 1/2" W X 18 1/2"H X 5"D	N/A	Standard
Large Enclosure 18 1/8" W X 22 3/4"H X 5"D	N/A	Optional
Lamp Test Button	•	•
Design Services Available	Optional	Optional
Custom Configurations	N/A	Optional
Pre-Manufactured and Tested Prior to Shipment	•	•
UL Approved	•	•

Note 1: Also optionally offered with internal battery horn that sounds when protective cover is lifted

Note 2: Refer to Ordering Information and the enclosed DWG sheets for details. All features subject to change without notice.

**Exhibit 3      Ordering Information**

Fike Part #	Item Class	Description
	<b>EP1</b>	<b>EPSMS Control Panels</b>
20-1181		<b>EPSMS Base Panel</b>
		Enclosure is black NEMA 1 keyed hinged door. Size is 14 1/2"W X 18 1/2"H X 5"D. Can be installed flush or surface mount.
		A quantity of eight (8) output contacts rated at 6 AMP 250 V are installed as standard. Each contact can be normally open or normally closed. Four (4) contacts activate upon "2nd Alarm Activation" and four (4) contacts activate upon "Discharge Activation".
		Monitoring contacts are included as standard:
		System Trouble:
		Loss of Input Power, Loss of Relay Controller Power, Panel in Maintenance Override
		Qty (1) normally open or normally closed contact
		Emergency Power Switch Activated
		Qty (1) normally open or normally closed contact
		Up to (8) more contacts can be added for a maximum of (18) and can be used for either 2nd Alarm, Discharge, System Trouble, and/or EPO Activated depending on specification of project. Additional relays over (18) require the use of the large enclosure option. See Optional Equipment below.
20-1398		<b>EPSMS (Pre-Action)</b>
		This control panel is the same as the 20-1181 EPSMS Base Panel but shall be used for Pre-Action Sprinkler only applications. When the panel is ordered, the "Second Alarm Activation" input and LED is eliminated (can be retained upon request at time of order). The "Discharge Activation" LED label is changed to read "Pre-Action".
20-1399		<b>EPSMS (EPO Only)</b>
		The control panel is the same as the base panel but shall be used for EPO only applications. When this panel is ordered, the "Second Alarm Activation" and "Discharge Activation" LED are eliminated
20-1186		<b>EPSMS (EPO Only) with EPO Station Flip Up Cover Open Monitoring</b>
		Control panel is the same as the 20-1399 but shall be used for EPO only application when the optional EPO station with flip up cover and external horn are purchased. When this panel is ordered an "EPO Station Cover Open" LED is added to the panel door and illuminates when the flip up cover is lifted. A quantity of two (2) input contacts are available for EPO station cover open micro switches and quantity two (2) output contacts rated at 6 AMP 250 V are installed. Each contact can be normally opened or normally closed. The output contacts allow for remote monitoring of up to two optional Keyed Emergency Power Off Stations with flip up covers (Fike optional EPO stations must be used with this model panel). One (1) contact designated to station cover #1 and one (1) contact designated to station cover #2. This panel includes the optional 20-1040 Large Panel Enclosure 18" W X 23" H X 5" D. Panel is equipped with upgraded shunt trip contactor with output of 10A VAC.
	<b>EP2</b>	<b>EPSMS COMPACT Control Panels</b>
20-2047		<b>EPSMS COMPACT Base Panel</b>
		Enclosure is black NEMA 1 keyed hinged door. Size is 14 1/2"W X 15"H X 5"D. Can be installed flush or surface mount. A quantity of four (4) output contacts rated at 6 AMP 250V are installed as standard. Each contact can be normally open or normally closed. Two (2) contacts activate upon "2nd Alarm Activation" and two (2) contacts activate upon "Agent Release Activation"
		Monitoring contacts are included as standard:
		System Trouble:
		Loss of Relay Controller power, Panel in Maintenance Override
		Qty. (1) normally open or normally closed contact
		Emergency Power Switch activated
		Qty. (1) normally open or normally closed contact
		Up to (4) more contacts can be added for a maximum of (10) and can be used for either 2nd Alarm, Agent Release, System Trouble, and/or EPO Activated depending on specification on project. Optionally an EPO station can be factory installed on the front of the door. See Optional Equipment below.

Fike Part #	Item Class	Description
20-2048		<b>EPSMS COMPACT (Pre-Action)</b> This Control Panel is the same as the 20-2047 EPSMS COMPACT Base panel but shall be used for Pre-Action Sprinkler applications. When the panel is ordered, the "2nd Alarm Activation" input and LED is eliminated (can be retained upon request at time of order). The "Agent Release" LED label is changed to read "Pre-Action"
20-2049		<b>EPSMS COMPACT (EPO Only)</b> The Control panel is the same as the 20-2047 EPSMS COMPACT Base panel but shall be used for EPO only applications. When this panel is ordered, the "2nd Alarm Activation" and "Agent Release" LED's are eliminated.
		<b>Optional Equipment and Services</b>
20-1400		<b>Custom Design Services (1 Lot)</b> In addition to standard base system documentation, this service includes project specific control riser diagram and scaled floor plan showing point to point device interconnecting wiring and conduit to all field devices such as EPSMS control panel and accessories and devices to be shutdown by the EPSMS such as Air Conditioning Units, Dampers, and Power Equipment. Drawings furnished in electronic CAD format. Customer to furnish details on the equipment to be shutdown and backgrounds in electronic format. The cost is per EPSMS control panel ordered.
20-1182		<b>C383 Relay (120VAC)</b> (single pole each N.O. or N.C.) When Placing an order specify how many relays shall activate upon 2nd Alarm, Discharge, System Trouble and/or EPO Activated. Can be added in the field.
20-1373		<b>C383 Relay (24VDC)</b> (single pole each N.O. or N.C.) Same as 20-1182 except furnished in 24VDC. This option is selected when ordering the 24VDC Battery Backed Power Supply (#20-1406). When Placing an order specify how many relays shall activate upon 2nd Alarm, Discharge, System Trouble and/or EPO Activated. Can be added in the field.
20-1401		<b>Large Panel Enclosure Add</b> Enclosure shall be black NEMA1. Size is 18" W X 23" H X 5" D. Can be installed flush or surface mounted. The large enclosure shall accommodate up to a total of (30) output relays as opposed to the standard enclosure that accommodates (18). Not available with EPSMS COMPACT models.
20-2050		<b>Fiberglass Enclosures</b> This option changes the EPSMS enclosure from sheet metal to fiberglass. Enclosure is grey fiberglass 15.5"W x 17.375"H x 6.625"D. For <b>surface mount only</b> . With this option, the total weight of the control panel is less than 20 pounds. This enclosure upgrade is generally used when a shaker test is required. Because the control panel weight with this option is less than 20 pounds, a shaker test certification is not required. Typical application is for OSHPOD projects. Not available with EPSMS COMPACT models.
20-1383		<b>Light 120VAC Amber w/ White Trim</b> The remote notification light to be activated by power from EPSMS when control panel is put into maintenance bypass mode. Can be surface or flush mounted (back box furnished by others). Voltage to match control panel voltage. Light is furnished with yellow label and black lettering "ILLUMINATION INDICATES EPSMS IN OVERRIDE MODE". Not available with EPSMS COMPACT models.
20-1384		<b>Light 24VDC Amber w/ White Trim</b> Same as 20-1383 except furnished in 24VDC. This option is selected when ordering the 24VDC Battery Backed Power Supply (#20-1406). Not available with EPSMS COMPACT models.
20-1184		<b>Keyed Emergency Power Off Station (Red)</b> Includes keyed button, flip-up protective cover, key and caution sign. Can be surface or flush mounted to a single gang box (back box furnished by others). Caution sign is yellow with black letter "CAUTION DEPRESSING THIS BUTTON WILL DE-ENERGIZE ALL EQUIPMENT POWER TO THE PROTECTED ROOM"
20-1405		<b>Keyed EPO Station (Red) w/Internal Battery Horn</b> Same as 20-1184 with the addition of a horn. Horn is mounted internally and powered by an on board 9VDC alkaline battery (Shipped with battery installed). The horn is activated by a micro switch when the protective flip up cover is lifted. Horn shipped with label attached in yellow with black lettering "ATTENTION EPO COVER HAS BEEN OPENED. CLOSE COVER TO SILENCE HORN"

Fike Part #	Item Class	Description
20-1402		<b>Keyed EPO Station (Red) w/External Horn</b> Same as 20-1184 with the addition of a horn. Horn is mounted separately in a two gang box (back box furnished by other) and interconnected with the EPSMS control power and protective flip-up cover micro switch. Interconnecting wire and conduit by others. Not available with EPSMS COMPACT models.
20-1879		<b>Keyed EPO Station (Red) w/External Horn 24VDC</b> Same as 20-1402 except furnished in 24VDC. This option, if required, is selected when ordering the 24VDC Battery Backed Power Supply (#20-1406). Not available with EPSMS COMPACT models.
20-1403		<b>Dual Input Power Source Add</b> This feature allows the control panel to accommodate two separate 120VAC power input sources. This option includes the optional 20-1401 Large Enclosure Add. The panel enclosure size increases to 18" W X 23" H X 5" D. This enclosure can accommodate up to a total of (30) output relays. Not available on EPSMS COMPACT.
		<b>Dual Input Power Source (Fiberglass)</b> Mounted in a dedicated fiberglass enclosure. Enclosure is grey fiberglass 15.5"W x 17.375"H x 6.625"D. Installation is <b>surface mount only</b> and weighs 20 pounds or less. Interconnecting wire and conduit between enclosures by others. Not available with EPSMS COMPACT models.
20-1406		<b>Battery Backed Power Supply (24VDC)</b> When this option is ordered the enclosure of the EPSMS panel is increased to 24" W" X 24" H X 5" D. Includes a 6 AMP 120VAC input 24VDC output power supply. An indicated light is added to the front of the panel labeled "Battery" and illuminates when panel is on battery. Please be advised that when ordering this option, 24VDC optional equipment must be ordered in lieu of 120VAC. The output of the EPSMS shunt trip circuit will be 24VDC. If the shunt trip circuit is used, the shunt trip controls on any interfacing shunt trip breakers MUST BE RATED at 24VDC. Batteries NOT included. Not available with the EPSMS COMPACT or when ordering the EPSMS with 20-2056 Fiberglass Enclosure.
20-2051		<b>Remote Battery Backed Power Supply (Fiberglass Enclosure)</b> Same as 20-1406 Battery Backed Power Supply (24 VDC) but is mounted in a dedicated fiberglass enclosure. Enclosure is grey fiberglass 15.5"W x 17.375"H x 6.625"D. Installation is surface mount only and weighs 20 pounds or less. Interconnecting wire and conduit between enclosures by others. Not available on EPSMS COMPACT.

**Notes:**

**Custom control panels can be manufactured for an additional cost. Custom panel cost and lead-time is quoted**  
 Special enclosure NEMA ratings.  
 Multiple zone control panels.  
 Customized control logic.  
 All batteries are excluded

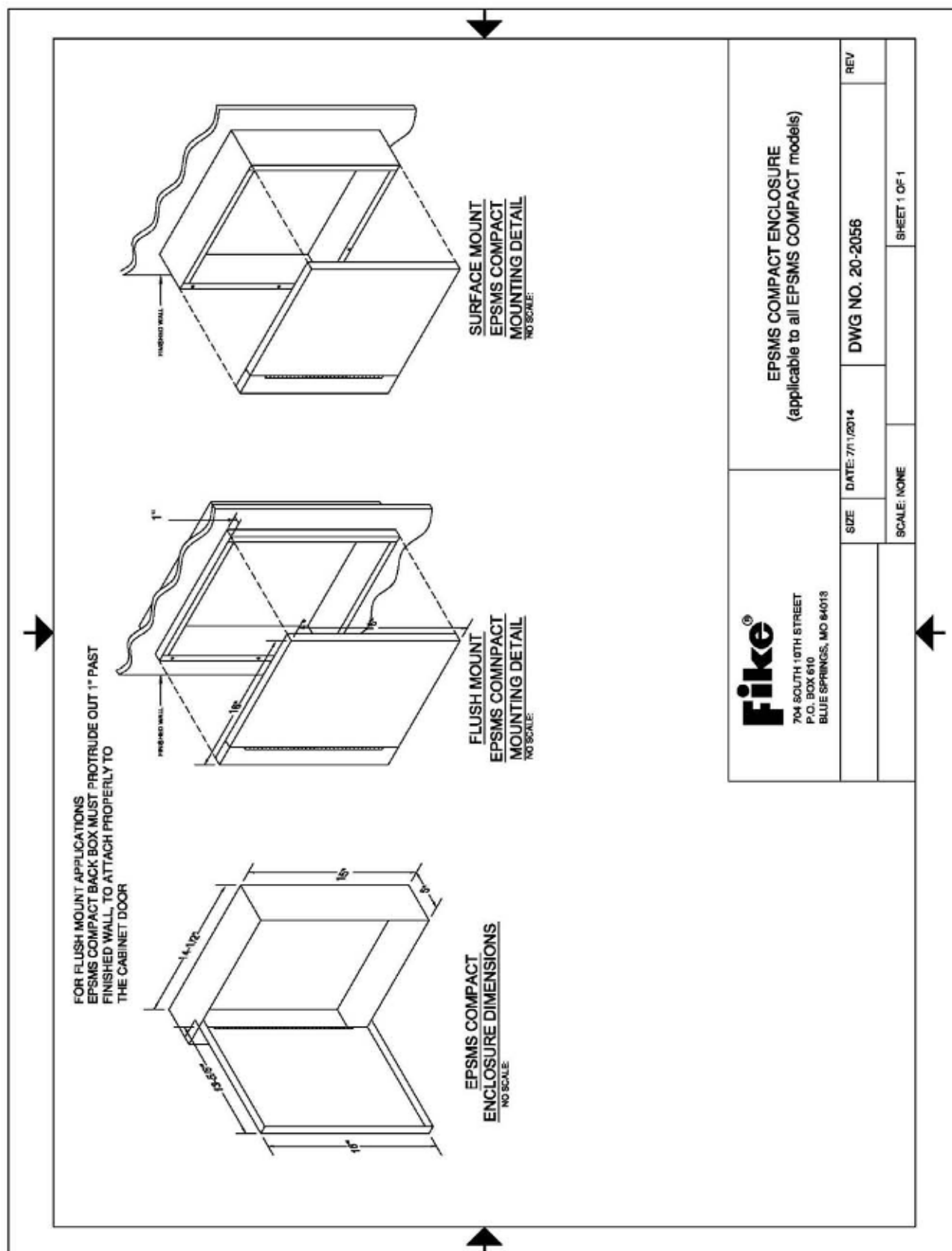
**Terms**

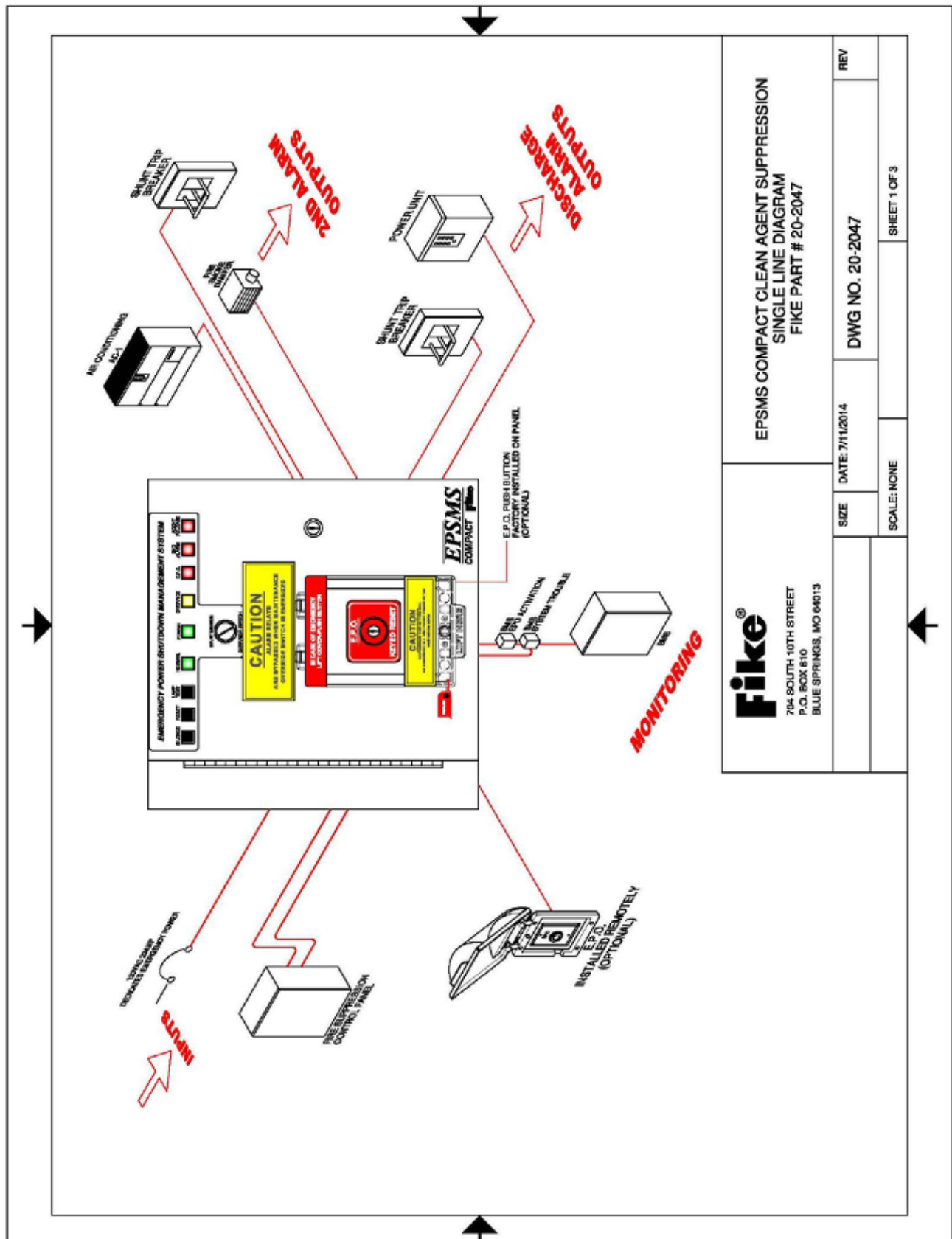
Prices exclude tax and freight.  
 Multi-control panel discounts apply for orders starting at four panels.  
 These prices are effective 11/1/2014.  
 Prices and product specifications are subject to change without notice.  
 Standard lead time is 2 weeks A.R.O. The lead time for custom panels is furnished at the time of quotation

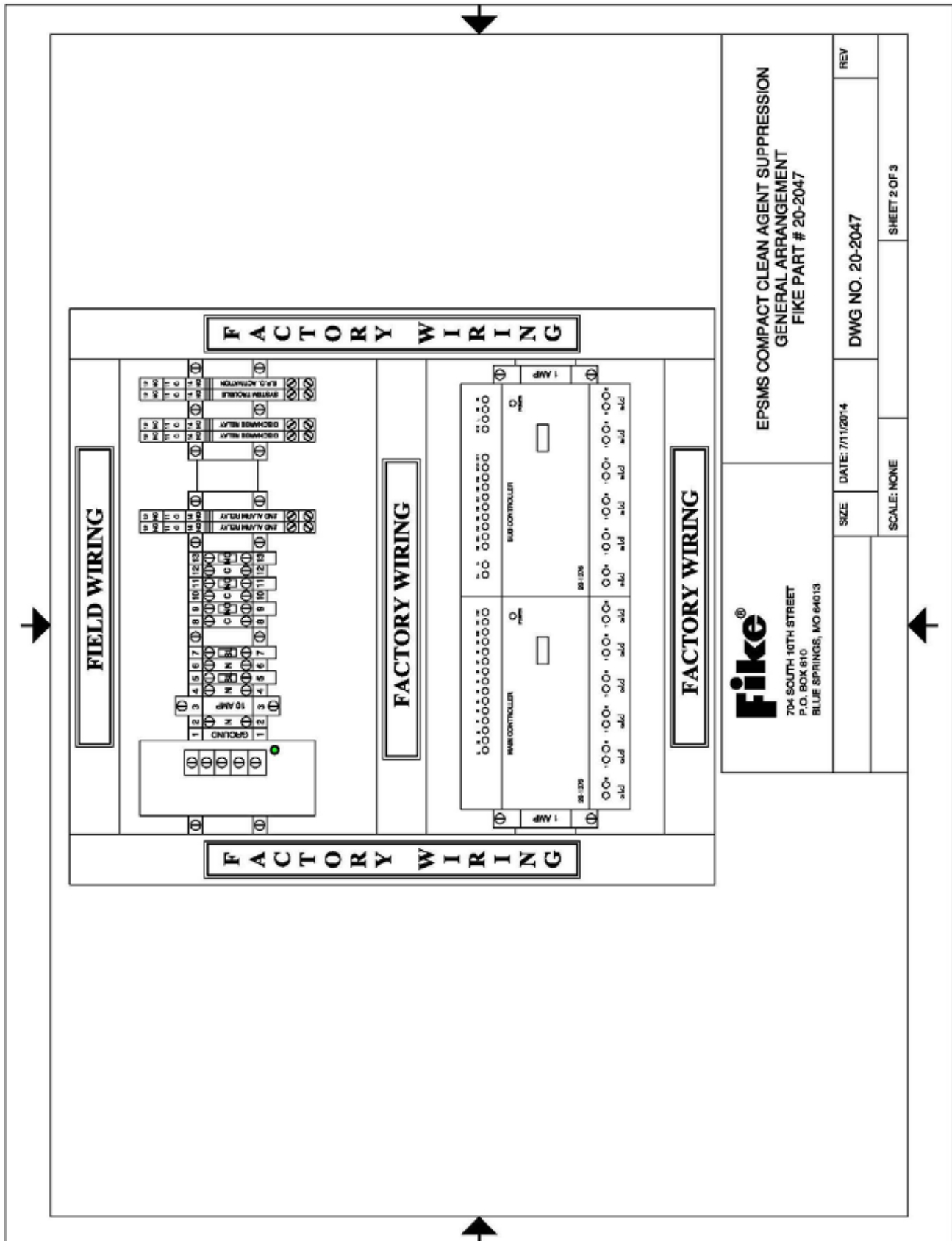
# Exhibit 4 Replacement Parts List

Fike Part #	Item Class	Description
		<b>Replacement Parts List</b>
	<b>EM1</b>	<b>EPSMS Indicating Lights</b>
		<b>(Includes LED and Contact Base)</b>
20-1351		Indicating Light Red (120V)
20-1352		Indicating Light Green (120V)
20-1353		Indicating Light Amber (120V)
20-1354		Indicating Light Red (24V)
20-1355		Indicating Light Green (24V)
20-1356		Indicating Light Amber (24V)
20-2052		Indicating Amber LED, Square (EPSMS COMPACT only)
20-2053		Indicating Red LED, Square (EPSMS COMPACT only)
20-2054		Indicating Green LED, Square (EPSMS COMPACT only)
	<b>EM2</b>	<b>EPSMS Buttons, Switches, Protective Cover</b>
20-1357		Sel Switch 3 Pos (2NO)
20-1358		Flush Push Button (Red) (1NO)
20-1359		Keyed Sel Switch 2 Pos (1NO)
		<b>Includes Key, Switch, Holder, 1 NO Contact</b>
20-1360		Contact Block for 2 Pos Switch (1NC)
20-1361		EPO Cover Surface/Flush 1 Gang w/ ext. Horn
20-1880		EPO Cover Surface/Flush 1 Gang w/ int Battery Horn
20-1881		EPO Cover Surface/ Flush 1 Gang Only
20-1362		Momentary Micro Switch
20-2055		Push Button, Black, Square (EPSMS COMPACT only)
	<b>EM3</b>	<b>EPSMS Terminal Blocks</b>
20-1363		Terminal Block White (6mm)
20-1364		Terminal Block Red (6mm)
20-1365		Terminal Block Blue (6mm)
20-1366		Terminal Block Black (6mm)
20-1367		Ground Block Grn/Yel (6mm)
20-1368		C383 Marking Tags 1-10 (6mm)
20-1369		C383 Marking Tags 11-20 (6mm)
20-1370		Disconnect Terminal Block Gray
20-1371		Fused Terminal Block Black (6mm)
20-1372		End Stop (6mm)
	<b>EM4</b>	<b>EPSMS Relay Controller Parts</b>
20-1182		C383 Relay (120V)
20-1373		C383 Relay (24V)
20-1374		C383 Relay Jumper
20-1375		EZ Relay Controller (120VAC)
20-1376		EZ Expansion Controller
20-1377		EZ Relay Controller (24VAC)
20-1378		EZ Expansion Controller (24VAC)
20-2056		Power supply 24VDC @ 1.0 Amp (EPSMS COMPACT only)

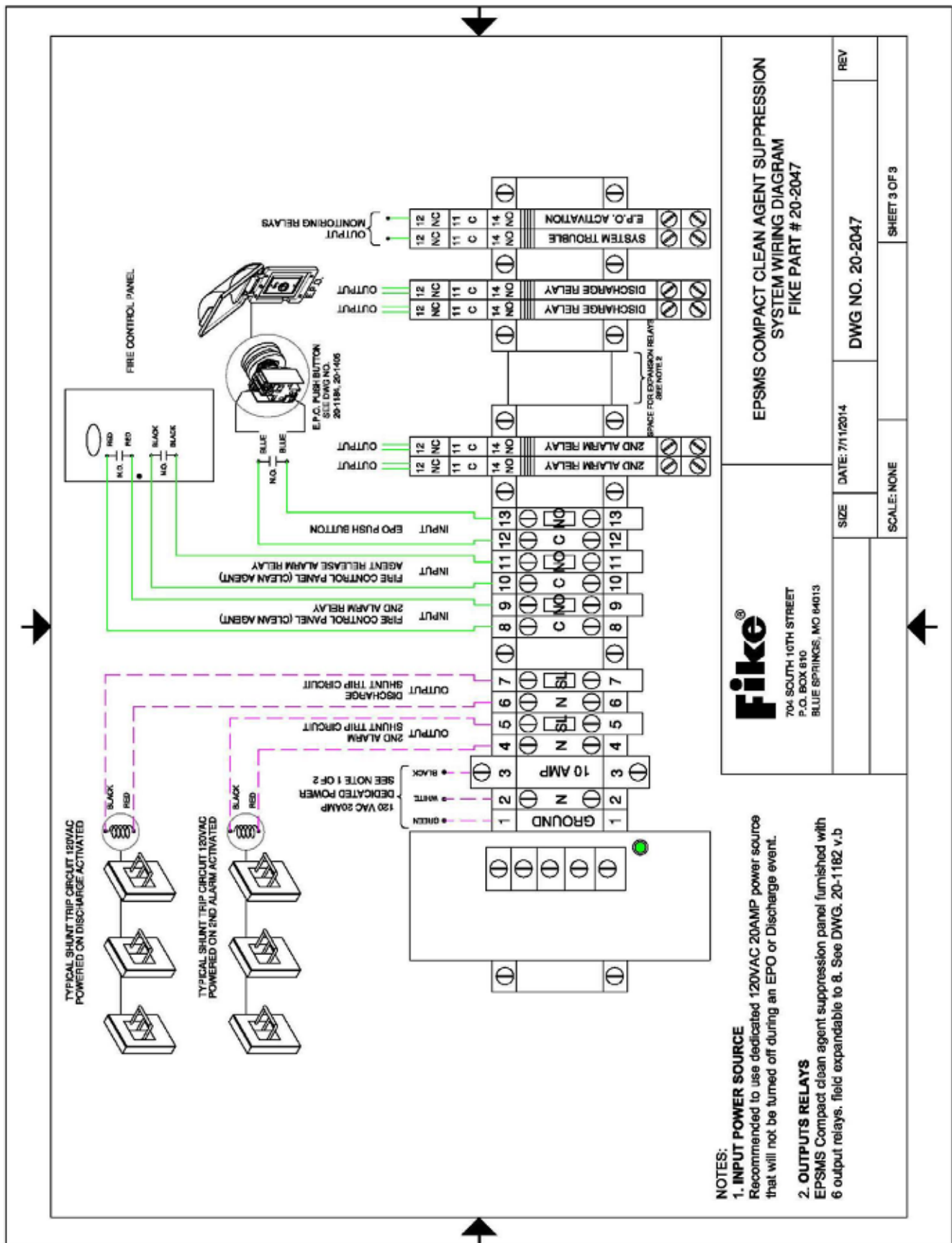
	<b>EM5</b>	<b>EPSMS Notification Devices</b>
20-1380		Piezo Alarm-120VAC
20-1381		Piezo Alarm-24VDC
	<b>EM6</b>	<b>EPSMS Enclosures</b>
		Finished enclosures are NEMA Type 1. Finished enclosure includes painted finish in satin black, door, hinge, back plate with pre-mounted panduit/cover and DIN rail, pre-punched door with panduit and panduit cover, and door lettering. Specify serial number of replacement panel when ordering replacement enclosures.
20-1386		Standard Finished Enclosure 14 1/2" W x 18 1/2" H x 5" D (Blk) for use with 20-1181 EPSMS Base Panel
20-1387		Standard Finished Enclosure 14 1/2" W x 18 1/2" H x 5" D (Blk) for use with 20-1398 EPSMS (Pre-Action)
20-1388		Standard Finished Enclosure 14 1/2" W x 18 1/2" H x 5" D (Blk) for use with 20-1398 EPSMS (EPO Only)
20-2057		Standard Finished Enclosure 14 1/2" W x 15" H x 5" D (Blk) for use with 20-2047 EPSMS Base Panel
20-2064		Standard Finished Enclosure 14 1/2" W x 15" H x 5" D (Blk) for use with 20-2048 EPSMS Base Panel
20-2065		Standard Finished Enclosure 14 1/2" W x 15" H x 5" D (Blk) for use with 20-2049 EPSMS Base Panel
20-1389		Large Finished Enclosure 18" W x 23" H x 5" D (Blk) for use with 20-1181 EPSMS Base Panel
20-1390		Large Finished Enclosure 18" W x 23" H x 5" D (Blk) for use with 20-1398 EPSMS (Pre-Action)
20-1391		Large Finished Enclosure 18" W x 23" H x 5" D (Blk) for use with 20-1399 EPSMS (EPO Only)
	<b>EM7</b>	<b>EPSMS Signage</b>
20-1392		Caution Sign EPO Push Button
20-1394		Sign Maintenance Override
20-1395		Sign Horn
	<b>EM9</b>	<b>EPSMS Spare Parts Assemblies</b>
20-1396		Horn Assembly Gray (120VAC)
		Horn Assembly includes horn, trim plate, label and adapter plate
20-1397		Keyed Selector Switch
		Keyed Selector Switch Assembly includes 2 position keyed switch, key, relay holder, 1 NO and 1 NC contact block

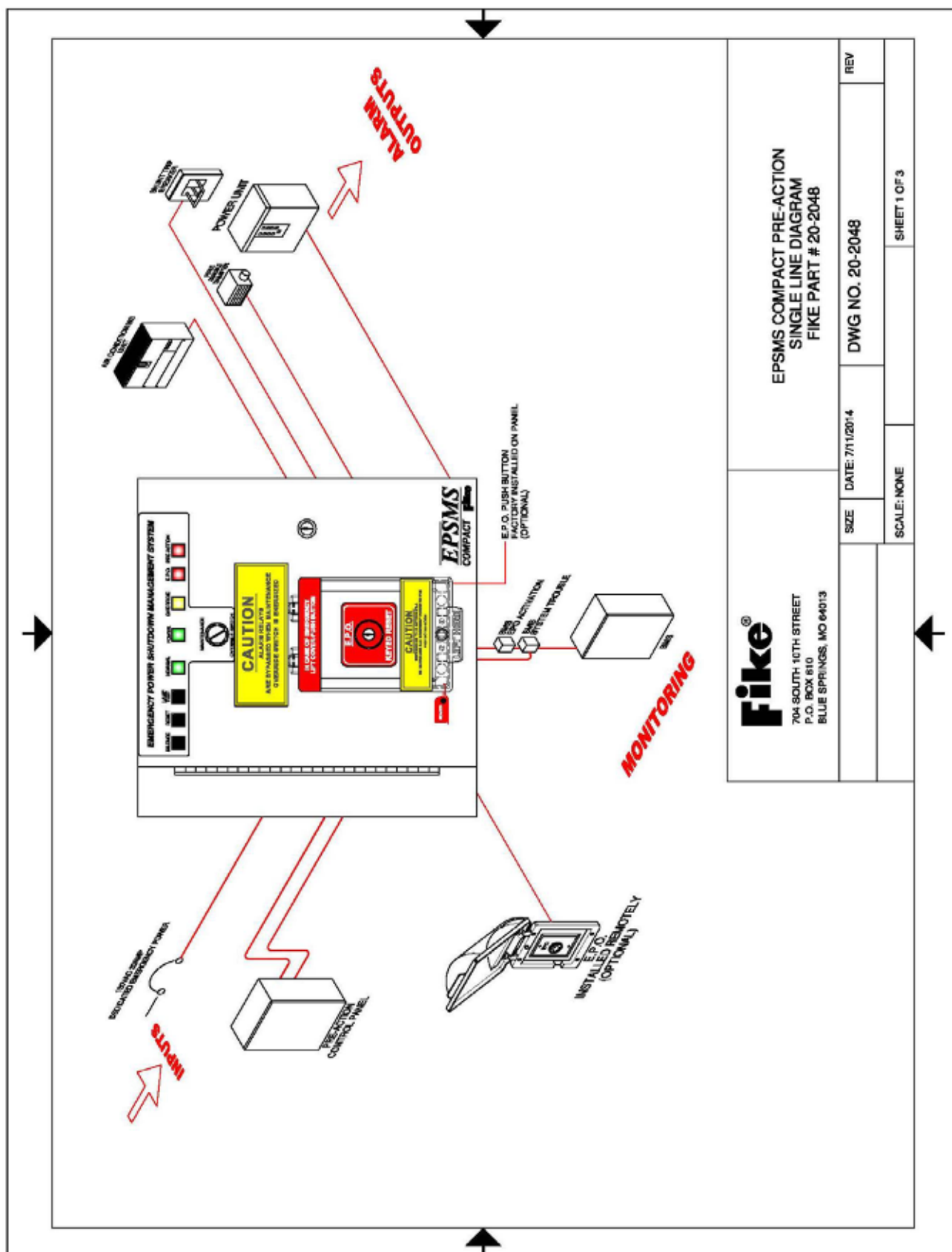




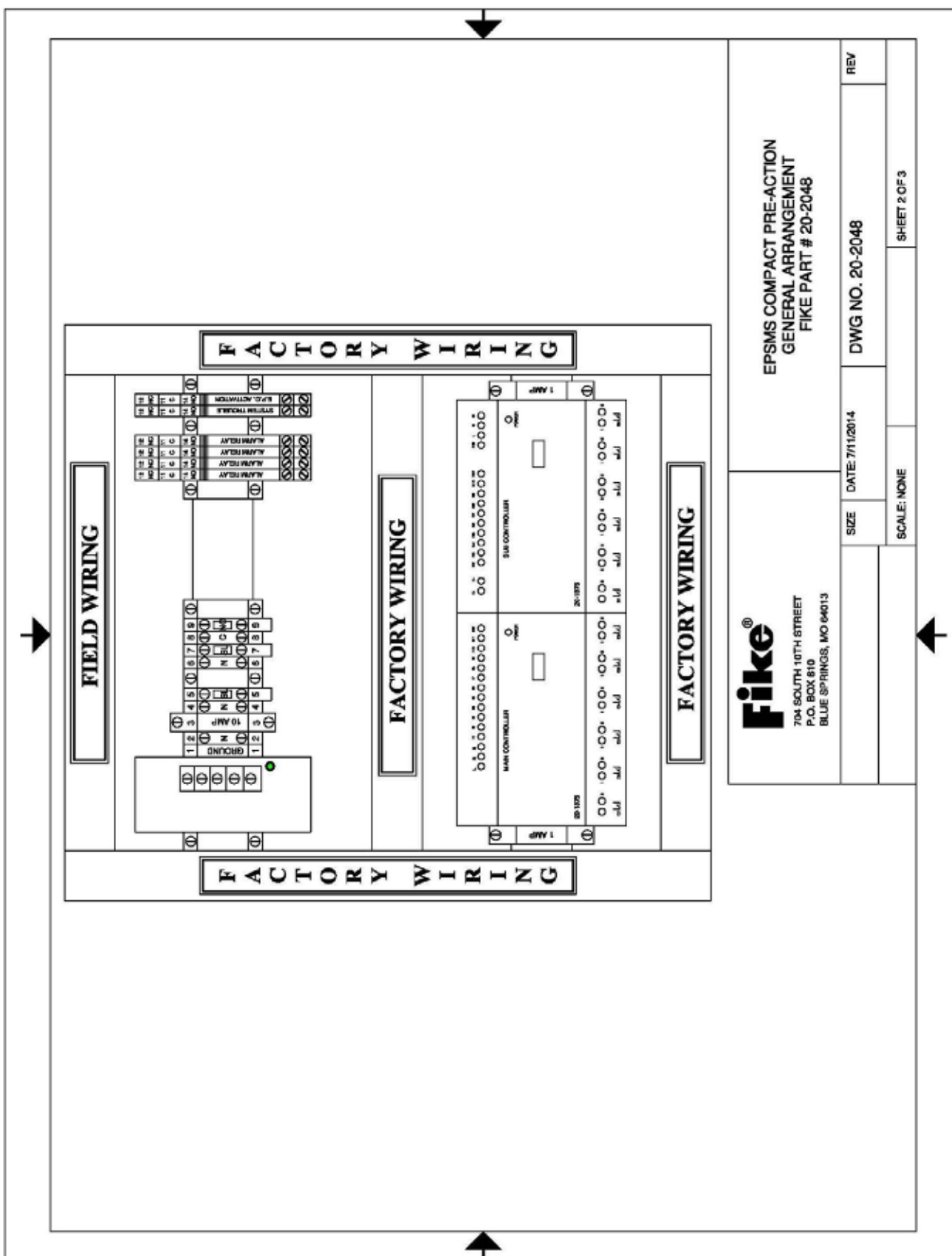


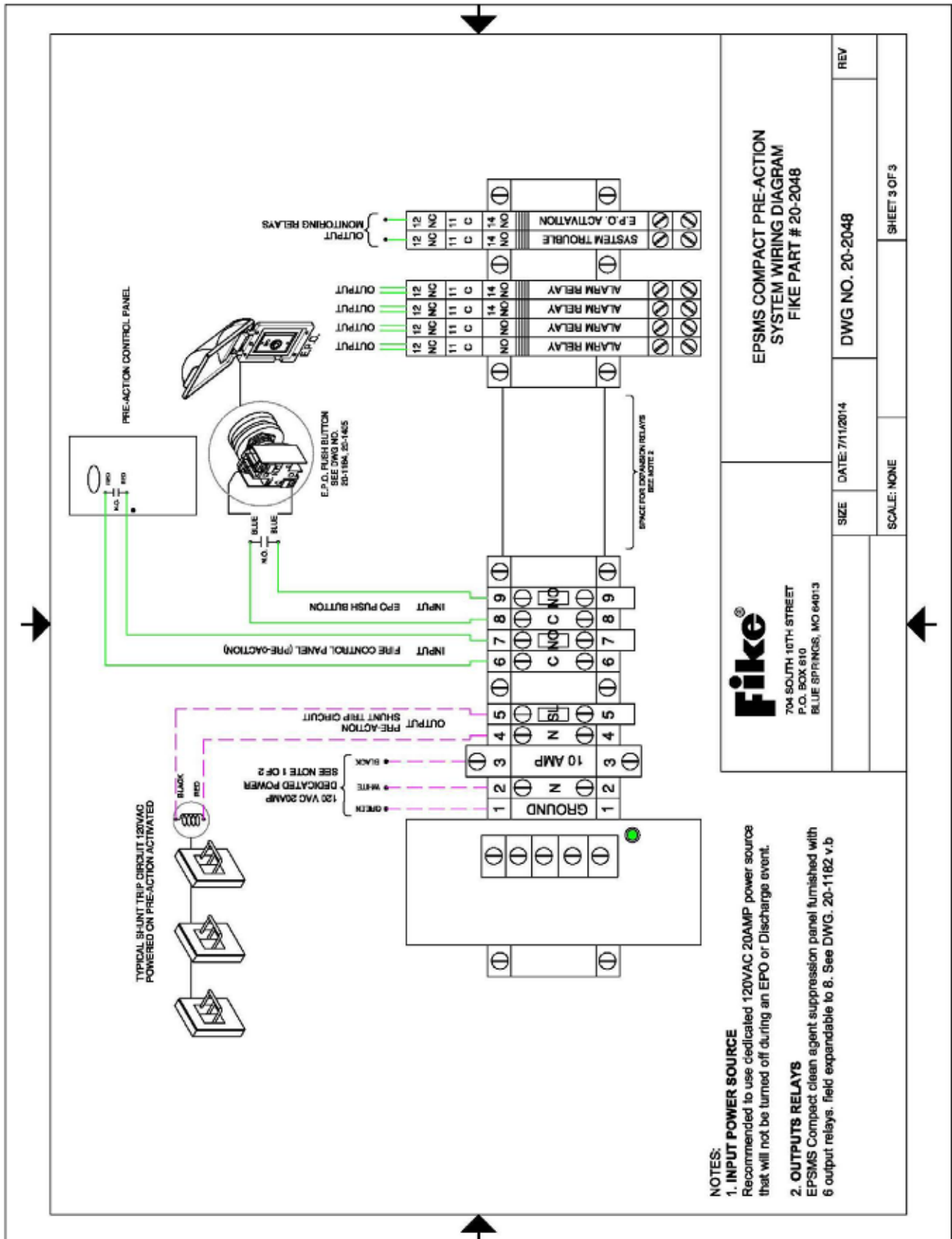
<b>Fike®</b> 704 SOUTH 10TH STREET P.O. BOX 810 BLUE SPRINGS, MO 64013				EPSMS COMPACT CLEAN AGENT SUPPRESSION GENERAL ARRANGEMENT FIKE PART # 20-2047			
SIZE		DATE: 7/11/2014		DWG NO. 20-2047		REV	
SCALE: NONE						SHEET 2 OF 3	

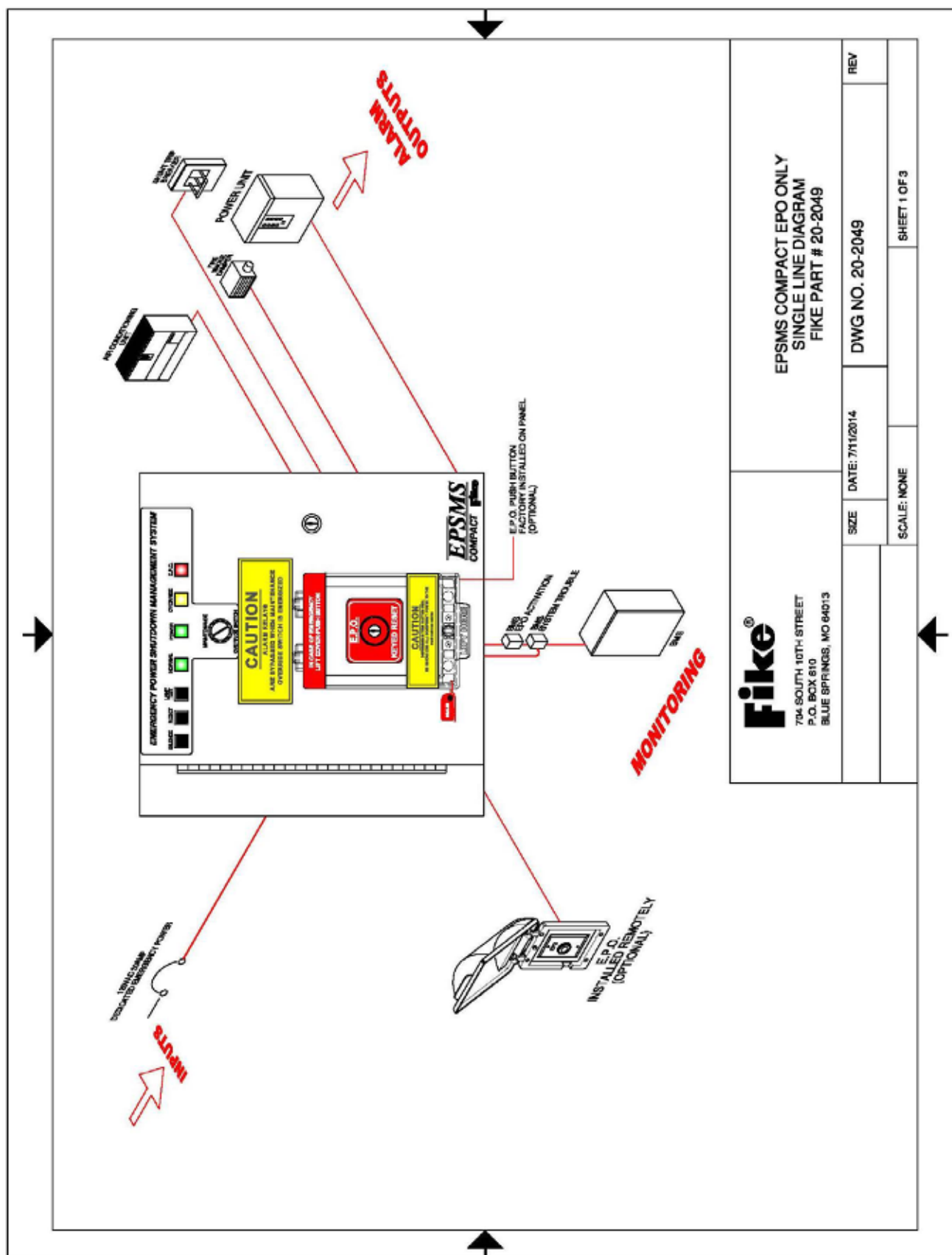


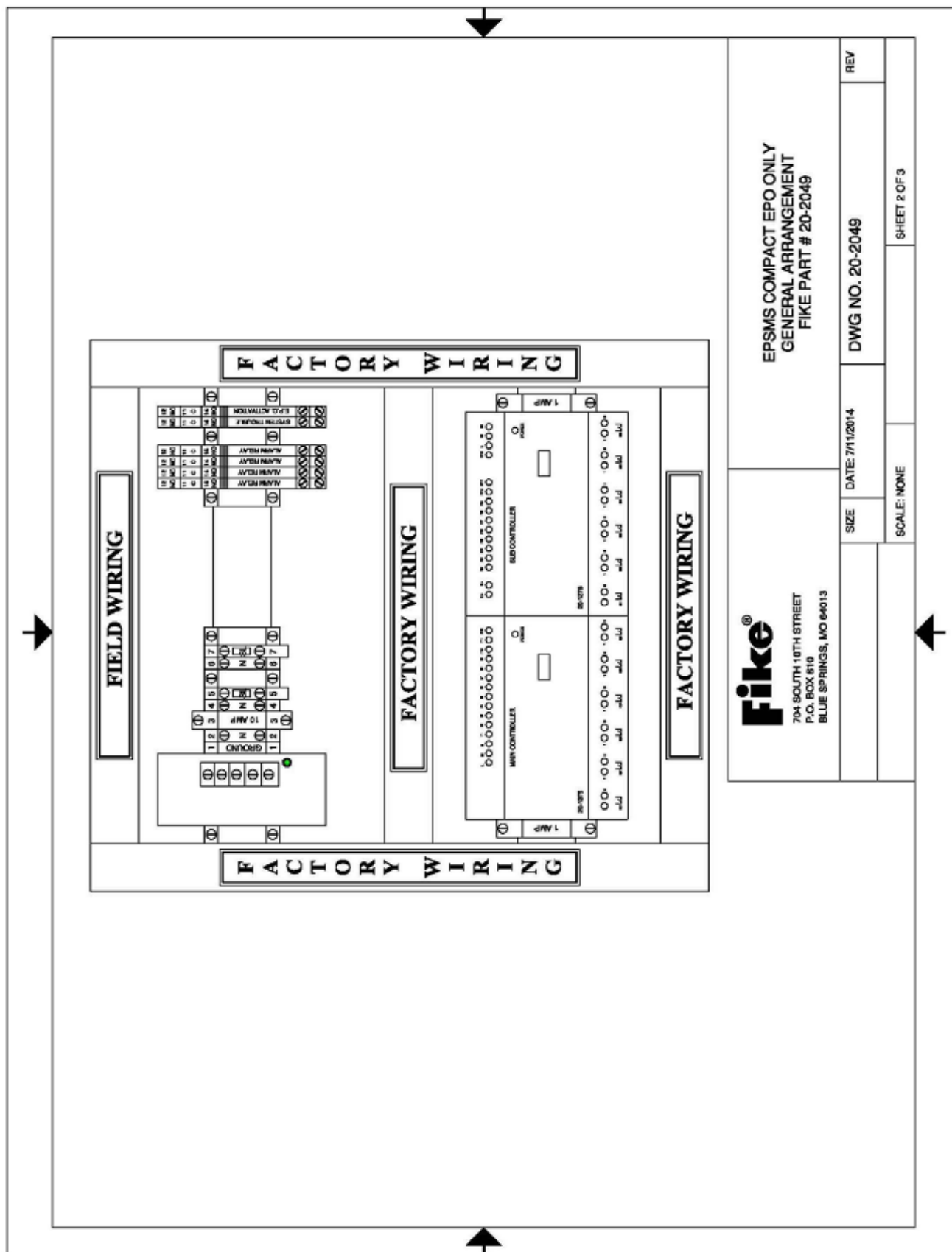


<b>Fike®</b> 704 SOUTH 10TH STREET P.O. BOX 610 BLUE SPRINGS, MO 64013		EPSMS COMPACT PRE-ACTION SINGLE LINE DIAGRAM FIKE PART # 20-2048		REV
		DATE: 7/11/2014	DWG NO. 20-2048	SHEET 1 OF 3
SIZE		SCALE: NONE		

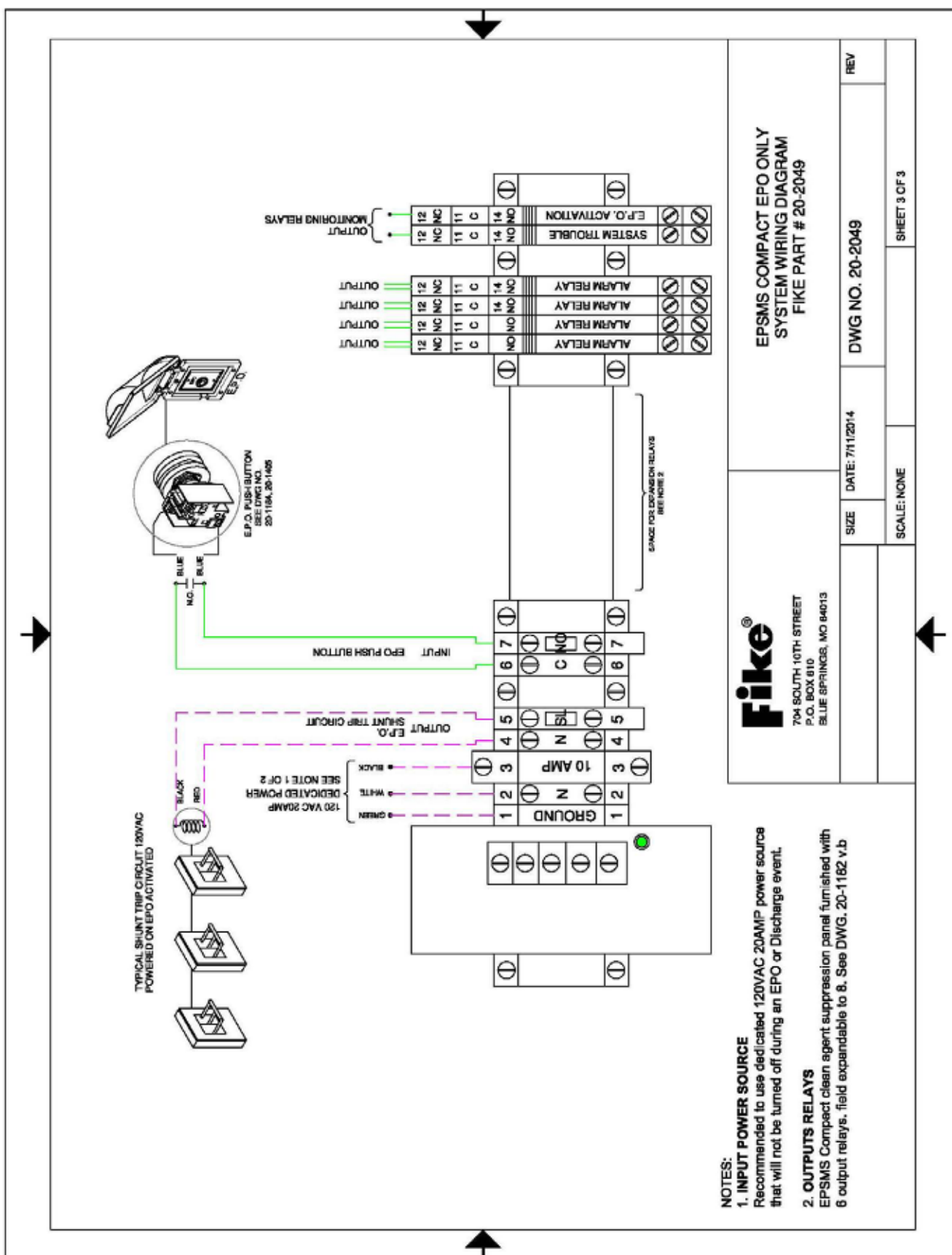


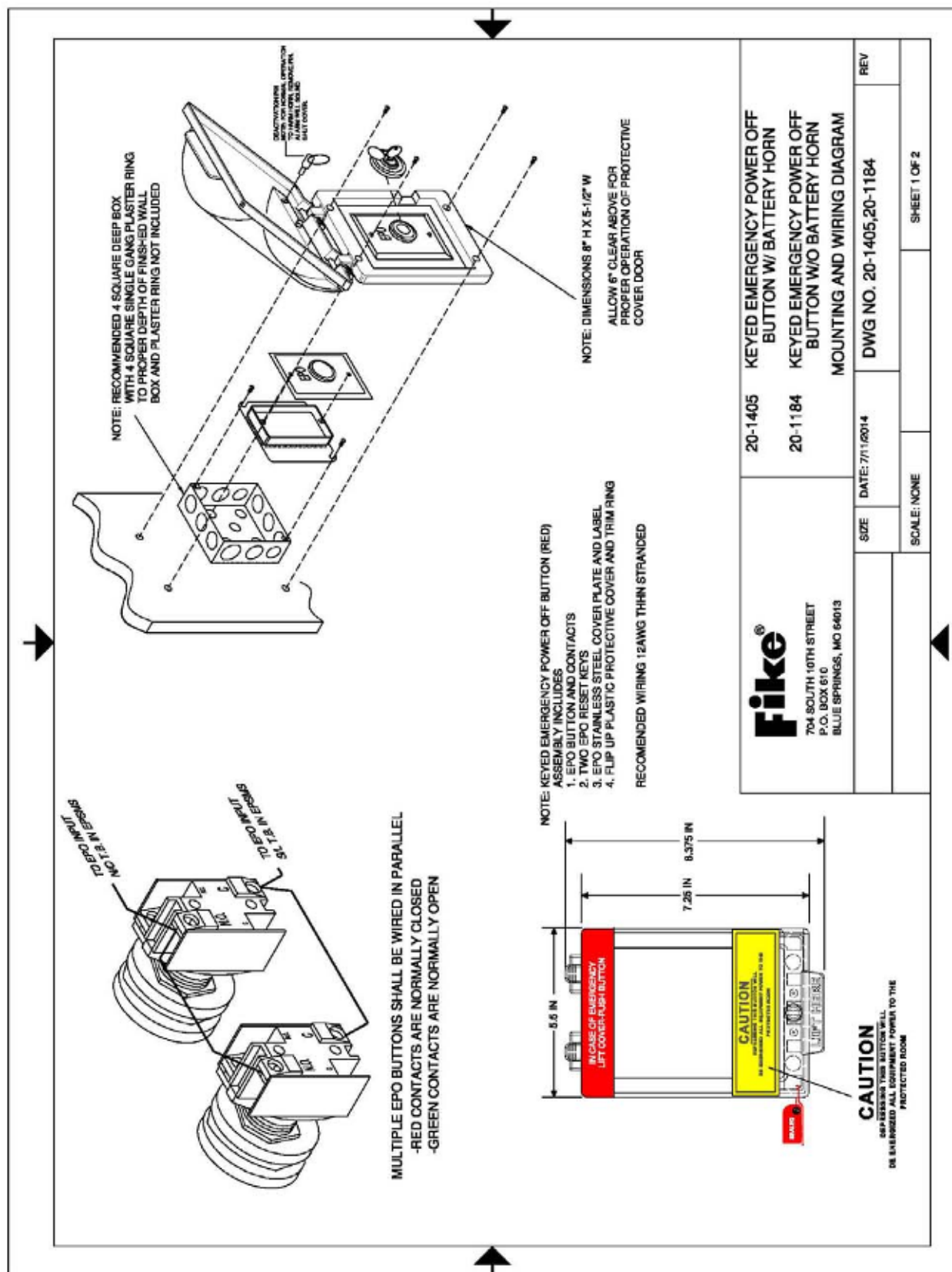


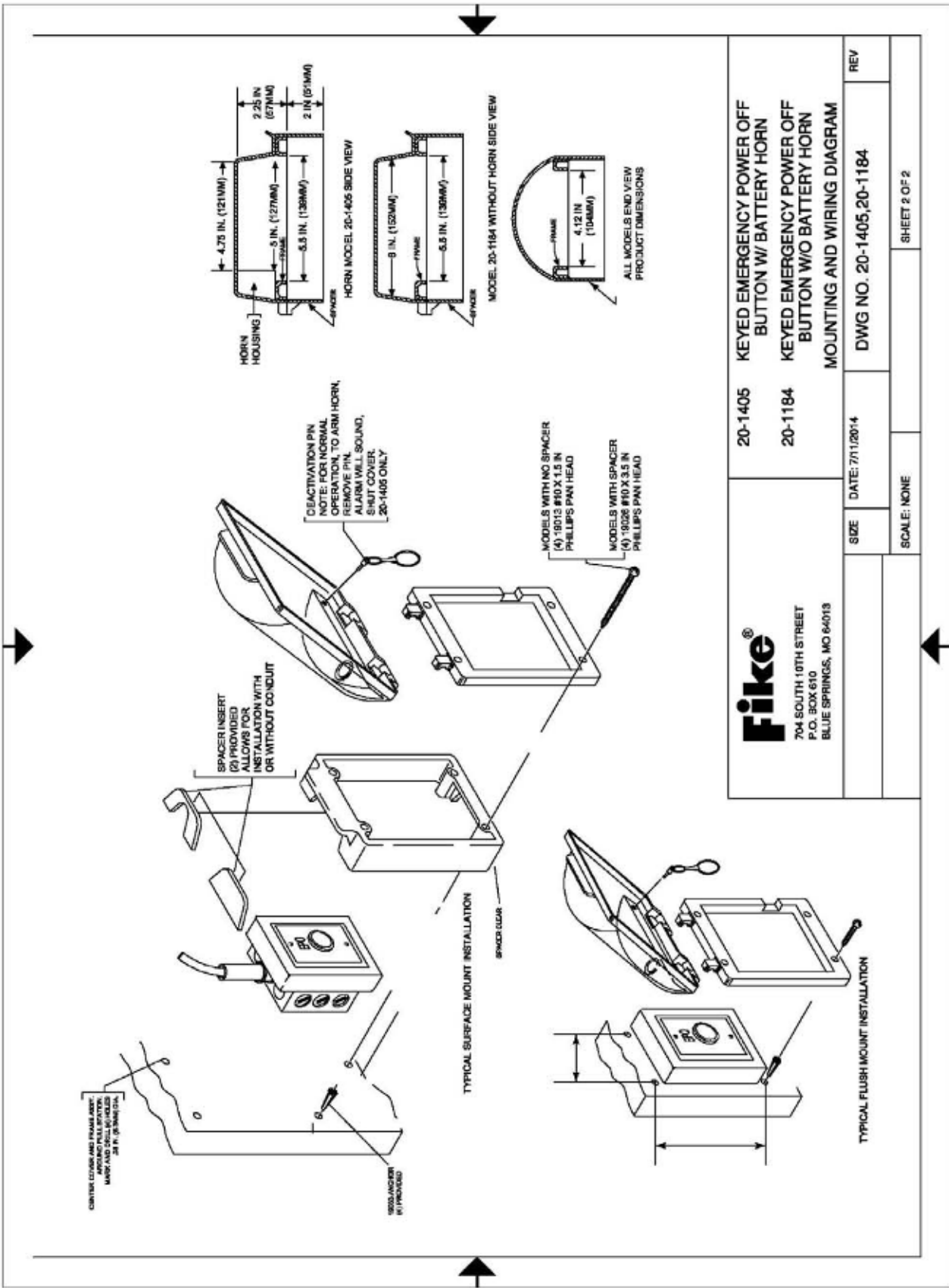




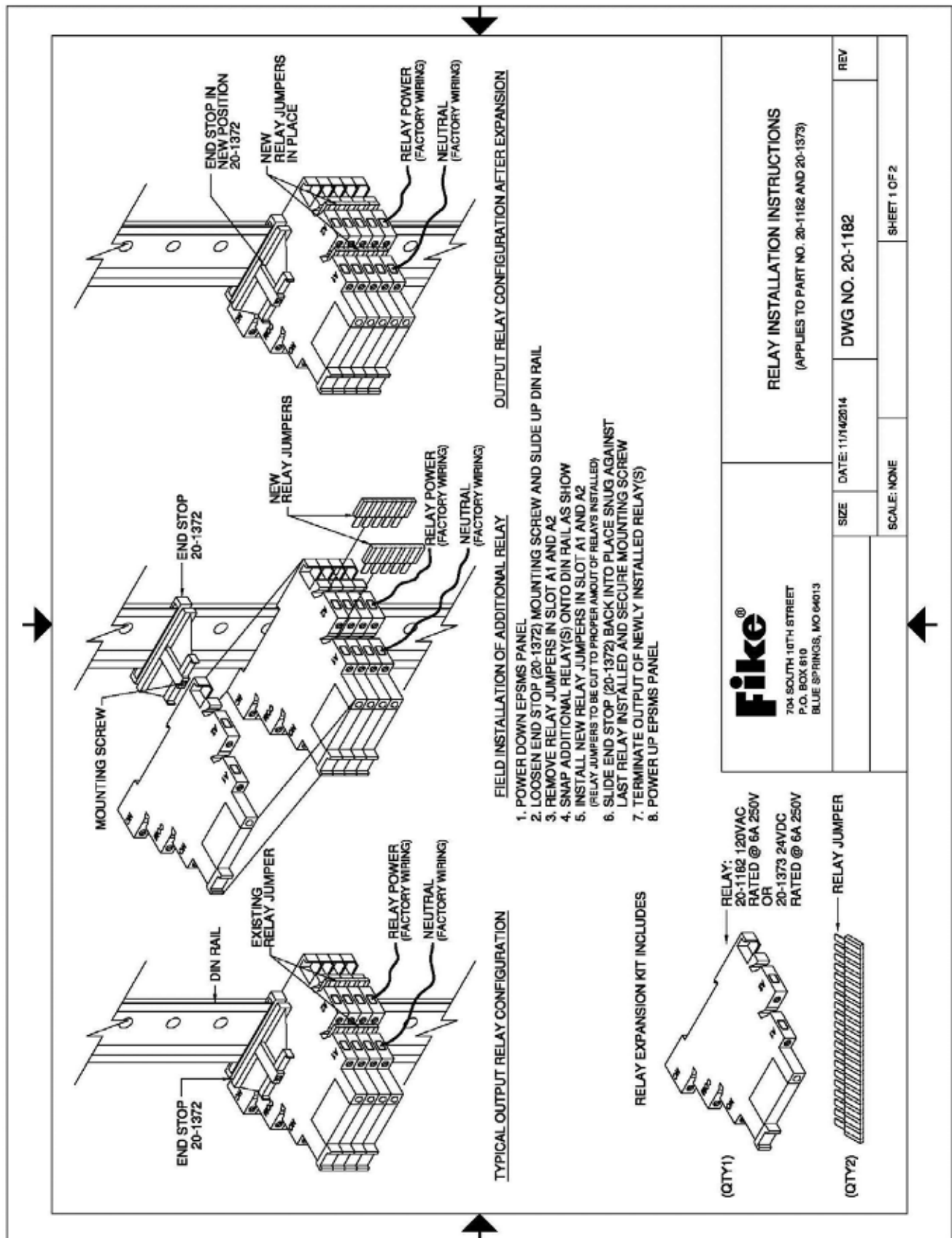
<b>Fike®</b> 704 SOUTH 10TH STREET P.O. BOX 810 BLUE SPRINGS, MO 64013		EPSMS COMPACT EPO ONLY GENERAL ARRANGEMENT FIKE PART # 20-2049		DWG NO. 20-2049		REV	
		DATE: 7/11/2014		SCALE: NONE		SHEET 2 OF 3	







<b>Fike®</b> 704 SOUTH 10TH STREET P.O. BOX 610 BLUE SPRINGS, MO 64013	20-1405	KEYED EMERGENCY POWER OFF BUTTON W/ BATTERY HORN	DATE: 7/1/2014	DWG NO. 20-1405,20-1184	REV
	20-1184	KEYED EMERGENCY POWER OFF BUTTON W/O BATTERY HORN	SCALE: NONE		
MOUNTING AND WIRING DIAGRAM					
SHEET 2 OF 2					



STANDARD RELAY CONFIGURATION AND MAXIMUM NUMBER OF RELAYS OFFERED

EPSMS COMPACT MODEL	OUTPUT SHUTDOWN RELAYS			MONITORING RELAYS			EXPANDABLE TO MAX.
	SMOKE ACTIVATION	DISCHARGE ACTIVATION	PRE-ACTION ACTIVATION	EPO ACTIVATION	SYSTEM TROUBLE	EPO ACTIVATED	TOTAL STANDARD
Base 20-2047	2	2		Note 1	1	1	6
Pre-Action 20-2048			4	Note 1	1	1	6
EPO Only 20-2049				4	1	1	6

Note 1: All output shutdown relays change state upon EPO Activation  
Note 2: Relays may be field arranged into any combination of output or monitoring type. Table shows standard arrangement as shipped. See relay installation instructions to change relay purpose.

<b>Fike®</b> 704 SOUTH 10TH STREET P.O. BOX 810 BLUE SPRINGS, MO 64013		<b>RELAY INSTALLATION INSTRUCTIONS</b> (APPLIES TO PART NO. 20-1182 AND 20-1373)	
SIZE	DATE: 11/14/2014	DWG NO. 20-1182	REV
SCALE: NONE		SHEET 2 OF 2	

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## **SECTION 5: TECHNICAL SPECIFICATIONS**

**5A: SECTION 212200 – CLEAN AGENT FIRE EXTINGUISHING SYSTEM SPECIFICATIONS**

## **SECTION 212200 - Clean-Agent Fire-Extinguishing System**

### **Clean Agent Fire Extinguishing utilizing 3M™ Novec™ 1230 Fire Protection Fluid**

#### **SECTION 1 – GENERAL SPECIFICATIONS**

##### **I. SCOPE**

This specification outlines the requirements for a "Total Flooding" clean agent fire extinguishing system utilizing Viking VSH1230 with 3M Novec 1230 fluid at 725 psi and using an ARC-100 addressable detection and control system.

##### **II. APPLICABLE STANDARDS AND PUBLICATIONS**

The design, equipment, installation, testing and maintenance of the Viking Clean Agent Suppression System shall be in accordance with the applicable requirements set forth in the latest edition of the following codes and standards.

- A. NFPA 2001 - Clean Agent Fire Extinguishing Systems.
- B. CBC - California Building Code
- C. CEC - California Electrical Code
- C. NFPA 72 – National Fire Alarm and Signaling Code.
- D. FM - Factory Mutual Approval Guide.
- E. UL - Fire Protection Equipment Directory.
- F. Department of Transportation (DOT) Title 49 Code of Federal Regulations
- G. NEMA – Enclosures for Industrial Controls and Systems.
- H. Authority Having Jurisdiction (AHJ)

The standards listed, as well as all other applicable codes, standards, and good engineering practices shall be used as "minimum" design standards.

##### **III. REQUIREMENTS**

The Suppression System installation shall be made in accordance with the drawings, specifications and applicable standards. Should a conflict occur between the drawings and specifications, the specifications shall prevail.

##### **IV. EXCLUSIONS**

The work listed below shall be provided by others, or under other sections of this specification:

- A. 120 VAC power supply to the system control panel.
- B. Connection to local/remote fire alarm systems or listed central alarm station(s).
- C. Seal Room to Maintain Integrity.

**V. QUALITY ASSURANCE**

**A. MANUFACTURER**

- 1) The manufacturer of the suppression system hardware and detection components shall be Viking Corporation. (No Substitution Allowed)
- 2) The name of the manufacturer Viking shall appear on all major components.
- 3) All devices, components and equipment shall be the products of the same manufacturer.
- 4) All devices, components and equipment shall be new, standard products of the manufacturer's latest design and suitable to perform the functions intended.
- 5) All devices and equipment shall be UL Listed and/or FM Approved.

**B. INSTALLER**

- 1) The installing contractor shall be trained by the supplier to design, install, test and maintain fire suppression systems.
- 2) The installing contractor shall employ a NICET certified special hazard designer, Level III or above, who will be responsible for this project.
- 3) The installing contractor shall be an experienced firm regularly engaged in the installation of automatic Clean Agent, or similar, fire suppression systems in strict accordance with all applicable codes and standards.
- 4) The installing contractor must have a minimum of five (5) years experience in the design, installation and testing of Clean Agent, or similar, fire suppression systems. A list of systems of a similar nature and scope shall be provided on request.
- 5) The installing contractor shall show evidence that his company carries a minimum \$2,000,000.00 liability and completed operations insurance policy. These limits shall supersede limits required in the general conditions of the specifications.
- 6) The installing contractor shall maintain, or have access to, a Clean Agent recharging station. The installing contractor shall provide proof of this ability to recharge the largest Clean Agent system within 24 hours after a discharge including the amount of bulk agent storage available.
- 7) The installing contractor shall be an authorized stocking distributor of the Clean Agent system equipment so that immediate replacement parts are available from inventory.
- 8) The installing contractor shall show proof of emergency service available on a twenty-four-hour-a-day, seven-day-a-week basis.

**C. SUBMITTALS**

- 1) The installing contractor shall submit the following design information and drawings for approval prior to starting installation on this project.
  - a. Shop drawings indicating detailed layout of system, locating each component (e.g. agent cylinder, control panel, electric/manual pull station, audible and visual alarms). Include

control diagrams, wiring diagrams, written sequence of operation or cause and affect matrix along with battery calculations, and pipe locations including size and length. Refer to NFPA 2001.

- b. Product data for each piece of equipment comprising the system including storage cylinders, control valves and pilot controls, control panels, nozzles, manual stations, detectors, alarm bells or horns, switches, and annunciators.
  - c. If shop drawings include changes from approved design drawings, the contractor shall provide design calculations derived from the VSH "DesignManager" computer program VSH1230 Module and verified by both Underwriters Laboratories and Factory Mutual. Analysis shall include calculations to verify system terminal pressures, nozzle flow rates, orifice code number, piping pressure losses, component flow data, and pipe sizes considering actual and equivalent lengths of pipe and elevation changes. Designers using this software shall be trained and certified by Viking Corporation. Software must be able to calculate up to 87% of the agent in the pipe distribution network.
  - d. Manufacturer's installation and operation manual.
- 2) Submit drawings, calculations and system component data sheets for approval to the local fire prevention agency, owner's insurance underwriter, and all other authorities having jurisdiction before starting installation. Submit approved plans to the architect/engineer for record.

## SECTION 2 – SYSTEM REQUIREMENTS

### I. SYSTEM DESCRIPTION AND OPERATION

- A. The fire protection system shall be a Viking VSH1230 Total Flooding System utilizing Novec 1230 fluid at 725 psi. System is a fixed installation where equipment is designed and installed to provide fire extinguishing capability for hazards described. The system shall be supplied by Viking Corporation. (No Exceptions)

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- B. The system shall provide a minimum agent design concentration of 4.7% by volume for Class A hazards in all areas and/or protected spaces, at the minimum anticipated temperature within the protected area. The system should be designed to discharge its liquid contents in 10 seconds or less. System design shall not exceed 10% for normally occupied spaces, adjusted for maximum space temperature anticipated, with provisions for room evacuation before agent release. Concentration may vary depending on the AHJ but may never be less than 4.7%.
- C. The system shall be complete in all ways. It shall include all mechanical and electrical installation, all detection and control equipment, agent storage cylinders, Novec 1230 fluid, discharge nozzles, pipe and fittings, manual release and abort stations, audible and visual alarm devices, auxiliary devices and controls, shutdowns, alarm interface, caution/advisory signs, functional checkout and testing, training and all other operations necessary for a functional, UL Listed and/or FM Approved Clean Agent Suppression System for use with Novec 1230 fluid.
- D. The system(s) shall be actuated by VESDA aspirating smoke detectors installed for maximum area coverage per manufacturer guidelines.(Ref. NFPA 72 and FSSA Detection & Control Guide).
- F. Automatic operation of each protected area shall follow the sequence of operations defined in the approved design drawings.

### II. MATERIALS AND EQUIPMENT

#### A. GENERAL REQUIREMENTS

- 1) The VSH1230 Clean Agent System materials and equipment shall be standard products of the supplier's latest design and suitable to perform the functions intended. When one or more pieces of equipment must perform the same function(s), they shall be duplicates produced by one manufacturer.
- 2) All devices and equipment shall be UL Listed and/or FM approved.
- 3) The fire suppression agent shall be 3M Novec 1230 fire protection fluid; clean dry, non-corrosive, non-damaging, non-deteriorating, and meeting the requirements of NFPA 2001. The agent shall be suitable for use in normally occupied spaces. Agent shall be listed as "Acceptable" on the EPA's SNAP list.

#### B. CLEAN AGENT STORAGE AND DISTRIBUTION

- 1) Each system shall have its own supply of clean agent.
- 2) Systems shall be designed in accordance with the manufacturer's guidelines.

- 3) Each supply shall be located within the hazard area, or as near as possible, to reduce the amount of pipe and fittings required to, install the system.
- 4) The clean agent shall be stored in seamless Viking Agent Storage Cylinder Assemblies. Cylinders shall be super-pressurized with dry nitrogen to an operating pressure of 725 psi @ 70°F (50 bar @ 21°C). Cylinders shall be of high-strength low alloy steel construction and conform to NFPA 2001.
- 6) Cylinders shall have a threaded protection ring on the tank collar and ¼" steel protection cap for handling and shipment.
- 7) Valve shall be constructed of forged brass and operate by means of pressure differential. Valve shall be constructed as to not require rebuild after discharge, Valve shall allow for means to pressurize cylinder without need for valve operation.
- 8) The primary cylinder assembly(s) shall be actuated by a resettable electric actuator or by pneumatic means from a PAE pilot cylinder. Non-resettable or explosive devices shall not be permitted.
  - a. All solenoids shall be supervised by a Solenoid Monitor Switch. Viking part number 922290D & 922291D
- 9) The cylinders shall be mounted per mounting details shown in approved design drawings. The cylinders and racks shall be arranged to allow a service aisle for cylinder removal and cylinder weighing.
- 10) Each cylinder assembly shall have a contact pressure gauge with integrated low pressure switch to provide visual and electrical supervision of the cylinder pressure. The low pressure switch shall be wired to the control panel to provide an audible and visual supervisory condition signal in the event the cylinder pressure drops below 10% working pressure. The pressure gauge shall be color-coded to provide an easy, visual indication of cylinder pressure.
- 11) Each cylinder assembly shall have a pressure relief provision that automatically operates before the internal pressure exceeds 1290 psi (89 bar) for cylinders with 1-1/2" valves and 1276 psi (88 bar) for cylinders with 2" valves.
- 12) When more than one cylinder is connected to a common manifold, a check valve shall be provided with each cylinder.
- 13) Engineered discharge nozzles shall be provided within the manufacturer's guidelines to distribute the Novec 1230 fluid throughout the protected spaces. The nozzles shall be designed to provide proper agent quantity and distribution. Nozzles shall be available in ½ inch through 2 inch pipe sizes. Each size shall be available in 180° and 360° distribution patterns.
  - a. Nozzles shall be permanently marked as to part number and orifice diameter.
  - b. Nozzles shall be of the type utilizing internal orifice plates.
  - c. Nozzles should be approved to be used in the upright or pendant position.
  - d. Nozzles shall be approved for an extended effective nozzle height of 17.9 feet
  - e. 180° Nozzles shall have 35.77 ft. radius of coverage
  - f. Back to back 180° nozzles shall be approved for installation
  - g. Nozzle flow rate shall be capable of 476 pounds.
  - h. System vertical tank to nozzle height shall be capable of 53.8' feet

If nozzles are only located **above** the tank outlet, then the maximum elevation difference between the tank and outlet and the furthest horizontal pipe run or discharge nozzle (whichever is furthest) shall not exceed 53.8 ft.

If nozzles are only located **below** the tank outlet, then the maximum elevation difference between the tank and outlet and the furthest horizontal pipe run or discharge nozzle (whichever is furthest) shall not exceed 53.8 ft.

If nozzles are only located **above and below** the tank outlet, then the maximum elevation difference between the discharge nozzles shall not exceed 53.8 ft.

- 14) Distribution piping, and fittings, shall be installed in accordance with the manufacturer's requirements, NFPA 2001 and approved piping standards and guidelines. All distribution piping shall be installed by qualified individuals using accepted practices and quality procedures. All piping shall be adequately supported and anchored at all directional changes and nozzle locations. The piping shall be laid out to give maximum flow and to avoid possible mechanical, chemical or other damage. Installation shall follow drawings as closely as possible. System designer must be consulted for anything other than minor deviations in pipe routing.
- a. Black or galvanized steel pipe shall be either ASTM A53 seamless or electric welded, Grade A or B or ASTM A-106, Grade A, B, or C. ASTM A-120, ordinary cast-iron pipe, aluminum pipe, or non-metallic pipe shall not be used. Stainless steel pipe shall be 304, 316, 304L, or 316L for threaded connections or 304L or 316L for welded connections.
  - b. Threaded fittings must comply with NFPA 2001 and be at a minimum class 300 malleable iron, class 300 ductile iron. Cast iron and Class 150 pound fittings shall not be used.
  - c. Grooved fittings and couplings must comply with NFPA 2001. Piping shall be rolled or cut grooved in accordance with the fitting or coupling manufacturer's guidelines.
  - d. Gaskets must be compatible with Novec 1230 fluid (typically EPDM having a temperature range of -30°F to 230°F [-34°C to 110°C]). Gasket lubricant must be in accordance with manufacturer's specifications.
  - e. The minimum allowable working pressure at 70°F (21.1°C) for pipe and fittings in closed sections of pipe must be greater than or equal to the maximum operating pressure of the discharge pipe safety relief valve.
  - f. Reductions in pipe sizes may be accomplished using threaded or grooved concentric reducing fittings, steel or stainless steel concentric swage fittings, or steel or stainless steel reducing bushings. All such fittings must comply with NFPA 2001. Pipe reductions can be made using machined or forged steel hex bushings. Malleable and/or cast iron bushings are NOT to be used.
  - g. All piping shall be reamed, blown clear and swabbed with suitable solvents to remove burrs, mill varnish and cutting oils before assembly.
  - h. All screwed pipe shall be coated with Teflon tape.
  - i. Piping shall be pneumatically tested in a closed circuit for a period of 10 minutes at 40 psi (2.76 bar) per the latest edition of NFPA 2001. At the end of 10 minutes, the pressure drop shall not exceed 20 percent of the test pressure. The pressure test shall be permitted to be omitted if the total piping contains no more than one change in

direction fitting between the storage container and the discharge nozzle, and where all piping is physically tested for tightness.

**C. CONTROL PANEL**

- 1) The control panel shall be a ARC-100 Addressable release Control Panel and its components shall be UL Listed and/or FM Approved for release.
- 2) The Control System shall perform all functions necessary to operate the system detection, actuation and auxiliary functions as outlined.
- 3) The Control System shall be capable of providing sufficient battery standby power supplies, providing from 24 hours standby.
- 4) The Control System shall support Single Detector Release and Manual Release detection/actuation methods.
- 5) The Control System shall provide the following capabilities and functions:
  - a. The FSCP shall include one (1) Signaling Line Circuit (SLC) that will power, supervise, monitor, and control a maximum of 100 analog addressable devices which may be made up of any combination of sensors and modules. Sub-points allow for more than 100 analog addressable software points. The SLC shall have the capability to be wired in an NFPA Style 4, 6, or 7 (Class A, B or X) configuration.
  - b. The FSCP shall have 3 form C relays dedicated to Alarm, Trouble, and Supervisory conditions. These relays shall have a contact rating of 3 Amps at 24VDC.
  - c. The FSCP shall have a power supply capable of providing a minimum of 5 amps of 24 VDC power to devices requiring auxiliary power and/or notification appliances.
  - d. The FSCP shall have two (2) programmable Notification Appliance Circuits rated at no less than 3 amps per circuit and capable of being wired in a Class A or Class B configuration.
  - e. The FSCP NAC circuits shall include the capability to automatically synchronize notification appliances from multiple manufacturers simultaneously on the same FACP without the need for a synchronization module. Systems that do not allow for multiple brands of strobes to be synchronized together on the same panel are not acceptable.
  - f. The FSCP shall have two (2) programmable I/O Circuits rated at 1 amp per circuit and capable of being wired in a Class B configuration.

**D. DETECTORS**

- 1) The detectors shall be spaced and installed in accordance with the manufacturer's specifications and the guidelines of NFPA 72.
- 2) Smoke detectors shall be 24VDC air sampling (VESDA VEP-A00-P).
- 3) The detector screen and cover assembly shall be easily removable for field cleaning of the detector chamber.
- 5) Tamper resistant security lock.

**E. MANUAL RELEASE (ELECTRIC)**

- 1) The electric manual release station shall be a dual action device which provides a means of manually discharging the clean agent fire extinguishing system when used in conjunction with the ARC-100 control system.
- 2) The manual release station shall be Notifier NBG-12RLA.
- 3) The manual release station shall be a dual action device requiring two distinct operations to initiate a system actuation.
- 4) The manual release station shall bypass the time delay and abort functions, shall cause the system to discharge and shall cause all release and shutdown devices to operate in the same manner as if the system had operated automatically.
- 5) A manual release station shall be located at each exit from the protected hazard.

**F. MANUAL RELEASE (MECHANICAL)**

- 1) Mechanical Manual Release shall be made available in the event all battery back-up and commercial power is lost. Viking P/N 887668 Manual Release shall be installed atop the electric actuator. Consideration should be given for convenience of operation and egress from the hazard area(s).

**G. ABORT STATION**

- 1) The optional Abort Station shall be "Dead Man" type and shall be integrated in the electric manual release station NBG-12RLA.

**H. AUDIBLE and VISUAL ALARMS**

- 1) Audible alarm and visual signal devices shall operate from the ARC-100 Control Panel.
- 2) Alarms shall operate on 24 VDC nominal polarized.
- 3) Audible alarms shall provide continuous or interrupted tones with an output sound level of at least 90 dBA measured at 10 feet from the device.
- 4) A Strobe device shall be placed outside, and above, each exit door

**I. BATTERIES**

- 1) Shall be 12.0 volt, Sealed, Lead Acid type (2 required).
- 2) Battery shall have sufficient capacity to power the fire alarm system for not less than twenty-four hours plus 5 minutes of alarm upon a normal AC power failure.
- 3) The batteries are to be completely maintenance free.

**J. ELECTRICAL INSTALLATION**

- 1) Installation shall be in accordance with the NFPA 70 (NEC), NFPA 72, NFPA 2001, local and state codes, as shown on the drawings, and as recommended by the major equipment manufacturer.
- 2) All conduit, junction boxes, conduit supports and hangers shall be concealed in finished areas and may be exposed in unfinished areas. Conduit installation shall be in accordance

with The National Electrical Code (NEC), local and state requirements. Smoke detectors shall not be installed prior to the system programming and test period. If construction is ongoing during this period, measures shall be taken to protect smoke detectors from contamination and physical damage.

- 3) All fire detection and alarm system devices, control panels and remote annunciators shall be flush mounted when located in finished areas and may be surface mounted when located in unfinished areas.

## **SECTION 3 – DOCUMENTATION AND TESTING**

### **I. SYSTEM INSPECTION AND CHECKOUT**

After the system installation has been completed, the entire system shall be checked out, inspected and functionally tested by qualified, trained personnel, in accordance with the manufacturer's recommended procedures and NFPA standards.

- A. All containers and distribution piping shall be checked for proper mounting and installation.
- B. All electrical wiring shall be tested for proper connection, continuity and resistance to earth.
- C. The complete system shall be functionally tested, in the presence of the owner or his representative, and all functions, including system and equipment interlocks, must be operational at least five (5) days prior to the final acceptance tests.
  - 1) Each detector shall be tested in accordance with the manufacturer's recommended procedures, and test values recorded.
  - 2) All system and equipment interlocks, such as door release devices, audible and visual devices, equipment shutdowns, local and remote alarms, etc. shall function as required and designed.
  - 3) Each control panel circuit shall be tested for trouble by inducing a trouble condition into the system.

### **II. TRAINING REQUIREMENTS**

Prior to final acceptance, the installing contractor shall provide operational training to each shift of the owner's personnel. Each training session shall include control panel operation, manual and (optional) abort functions, trouble procedures, supervisory procedures, auxiliary functions and emergency procedures.

### **III. OPERATION AND MAINTENANCE**

Prior to final acceptance, the installing contractor shall provide complete operation and maintenance instruction manuals, four (4) copies for each system, to the owner. All aspects of system operation and maintenance shall be detailed, including piping isometrics, wiring diagrams of all circuits, a written description of the system design, sequence of operation and drawing(s) illustrating control logic and equipment used in the system. Checklists and procedures for emergency situations, troubleshooting techniques, maintenance operations and procedures shall be included in the manual.

### **IV. AS-BUILT DRAWINGS**

Upon completion of each system, the installing contractor shall provide four (4) copies of system "As-Built" drawings to the owner. The drawings shall show actual installation details including all equipment locations (e.g. control panel(s), agent container(s), detectors, alarms, manuals and aborts, etc.) as well as piping and conduit routing details. Show all room or facilities modifications, including door and/or damper installations completed.

### **V. ACCEPTANCE TESTS**

- A. At the time "As-Built" drawings and maintenance/operations manuals are submitted, the installing contractor shall submit a "Test Plan" describing procedures to be used to test the control system(s). The Test Plan shall include a step-by-step description of all tests to be performed and shall indicate the type and location of test apparatus to be employed. The tests shall demonstrate

that the operational and installation requirements of this specification have been met. All tests shall be conducted in the presence of the owner and shall not be conducted until the Test Plan has been approved.

- B. The tests shall demonstrate that the entire control system functions as designed and intended. All circuits shall be tested: automatic actuation, solenoid and manual actuation, HVAC and power shutdowns, audible and visual alarm devices and manual override of abort functions. Supervision of all panel circuits, including AC power and battery power supplies, shall be tested and qualified.
- C. A room pressurization test shall be conducted, in each protected space, to determine the presence of openings which would affect the agent concentration levels. The test(s) shall be conducted using the Door Fan system with integrated computer program. All testing shall be in accordance with NFPA 2001.
- D. If room pressurization testing indicates that openings exist which would result in leakage and/or loss of the extinguishing agent, the installing contractor shall be responsible for coordinating the proper sealing of the protected space(s) by the general contractor or his sub-contractor or agent. The general contractor shall be responsible for adequately sealing all protected space(s) against agent loss or leakage. The installing contractor shall inspect all work to ascertain that the protected space(s) have been adequately and properly sealed. THE SUPPRESSION SYSTEM INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUCCESS OF THE ROOM PRESSURIZATION TESTS. If the first room pressurization test is not successful, in accordance with these specifications, the installing contractor shall direct the general contractor to determine, and correct, the cause of the test failure. The installing contractor shall conduct additional room pressurization tests, at no additional cost to the owner, until a successful test is obtained. Copies of successful test results shall be submitted to the owner for record. Upon acceptance by the owner, the completed system(s) shall be placed into service.

## **VI. SYSTEM INSPECTIONS**

- A. The installing contractor shall provide two (2) inspections of each system, installed under this contract, during the one-year warranty period. The first inspection shall be at the six-month interval, and the second inspection at the 12-month interval, after system acceptance. Inspections shall be conducted in accordance with the manufacturer's guidelines and the recommendations of NFPA 2001.
- B. Documents certifying satisfactory system(s) operation shall be submitted to the owner upon completion of each inspection.

## **VII. WARRANTY**

All components furnished and installed under this contract shall be warranted against defects in design, materials and workmanship for the full warranty period which is standard with the manufacturer, but in no case less than one (1) year from the date of system acceptance.

**5B: SECTION 260XXX - ELECTRICAL SYSTEM SPECIFICATIONS**

## SECTION 260000 – GENERAL ELECTRICAL REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SCOPE

- A. Basic electrical requirements specifically applicable to Division 26 Sections.
- B. Work includes but is not necessarily limited to the following:
  - 1. Labor, materials, services, equipment, and appliances required for completion of tasks as indicated on drawing or in specification or as inherently necessary to provide complete and operational electrical systems including:
    - a. All temporary construction power including test power, temporary heat and lighting;
    - b. Incidental items not indicated on the drawings nor mentioned in the Specifications that belong to the work described, or are required to provide complete and operable systems, as though called out here in every detail;
    - c. Cleaning, cutting, patching, repairing and painting;
    - d. Testing and commissioning;
    - e. The Contractor shall coordinate this Section with all other Sections of the Specification.

#### 1.3 DRAWINGS AND SPECIFICATIONS

- A. Drawings accompanying these Specifications show intent of Work to be done. Specifications shall identify quality and grade of installation and where equipment and hardware is not particularly specified, Contractor shall provide submittals for all products and install them per manufacturers' recommendations, and in a workmanlike manner.
- B. Examine Drawings and Specifications for elements in connection with this Work; determine existing and new general construction conditions and be familiar with all limitations caused by such conditions.
- C. In the event of a conflict or inconsistency between items indicated on the plans and/or specifications or with code requirements, the note, specification or code which prescribes and establishes the more complete job or the higher standard prevail.
- D. Plans are intended to show general arrangement and extent of Work contemplated. Exact location and arrangement of parts shall be determined after the Owner has reviewed equipment, as Work progresses, to conform in best possible manner with surroundings, and as directed by the Owner's Representative.
- E. For purposes of clearness and legibility, the electrical drawings are essentially diagrammatic. The size and location of equipment is shown to scale where possible. The contractor shall verify all

conditions, data information as indicated on the drawings and in the specification sections where electrical work interfaces with other trades.

- F. Contract Documents are intended to show the scope and general arrangement of the Work under this Contract. Drawings are not intended to be scaled for roughing in measurements or to serve as shop drawings. Where job conditions require minor changes or adjustments in the indicated locations or arrangement of the Work, such changes shall be made without change in the Contract amount.
- G. The contractor shall maintain as built drawings to reflect all changes made during construction and any deviations from the electrical drawings. This includes deviations from circuit numbers and any addition, deletion or relocation of fixtures/outlets shown on working drawings.

#### 1.4 UTILITIES

- A. Location and sizes of electrical, mechanical and plumbing service facilities are shown in accordance with data secured from existing record drawings and site observations. Data shown are offered as an estimating guide without guarantee of accuracy. Check and verify all data given, and verify exact location of all utility services pertaining to Work prior to excavation or performing Work.

#### 1.5 APPLICABLE REFERENCE STANDARDS, CODES AND REGULATIONS

- A. Meet requirements of all state codes having jurisdiction.
- B. State of California Code of Regulations:
  - 1. Title 8, Chapter 4. Division of Industrial Safety, Subchapter 5. Electrical Safety Orders (Cal/OSHA):
    - a. Low-Voltage Electrical Safety Orders (Sections 2299 - 2599)
    - b. High-Voltage Electrical Safety Orders (Sections 2700 - 2989)
  - 2. Title 19, State Fire Marshal Regulations
  - 3. Current California Building Code (CBC), Title 24, Part 2
  - 4. Current California Electrical Code, Title 24, Part 3
  - 5. Current California Mechanical Code, Title 24, Part 4
  - 6. Current California Plumbing Code, Title 24, Part 5
  - 7. Current California Energy Code, Title 24, Part 6
  - 8. Current California Fire Code, Title 24, Part 9
  - 9. Current California Standards Code, Title 24, Part 12
- C. Additional Referenced Standards:
  - 1. ANSI American National Standards Institute
  - 2. IEEE Institute of Electrical and Electronic Engineers
  - 3. NEMA National Electrical Manufacturer's Association
  - 4. NFPA National Fire Protection Association Standards
  - 5. UL Underwriters Laboratories
- D. Codes and ordinances having jurisdiction over Work are minimum requirements; but, if Contract Documents indicate requirements, which are in excess of those minimum requirements, then

requirements of the Contract Documents shall be followed. Nothing in these drawings and specifications shall be construed to permit work not conforming to governing codes or regulations. Should there be any conflicts between Contract Documents or codes or any ordinances having jurisdiction, report these to the Owner's Representative.

- E. Obtain permits, and request inspections from authority having jurisdiction.

#### 1.6 PROJECT AND SITE CONDITIONS

- A. The arrangement of and connection to equipment shown on the Drawings is based upon information available and is not intended to show exact dimensions peculiar to a specific manufacturer. The Drawings are, in part, diagrammatic and some features of the illustrated equipment installations may require revision to meet actual equipment installation requirements. Structural supports, housekeeping pads, piping connections and adjacent equipment may have to be altered to accommodate the equipment provided. No additional payment will be made for such revisions or alterations.
- B. Examine all Drawings and Specifications to be fully cognizant of all work required under this Division.
- C. Examine site related work and surfaces before starting work of any Section.
- D. Install Work in locations shown on approved Drawings, unless prevented by Project conditions.
- E. Prepare drawings showing proposed rearrangement of Work to meet Project conditions, including changes to Work specified in other Sections. Obtain permission from the Owner's Representative before proceeding.

#### 1.7 COOPERATION WITH WORK UNDER OTHER DIVISIONS

- A. Cooperate with other trades to facilitate general progress of Work. Allow all other trades every reasonable opportunity for installation of their work.
- B. Work under this Division shall follow general building construction closely. Set pipe sleeves and inserts and verify that openings for chases and pipes are provided.
- C. Work with other trades in determining exact location of outlets, conduits, pipes, and pieces of equipment to avoid interference with lines required to maintain proper installation of Work.
- D. Make such progress in the Work to not delay work of other trades.

#### 1.8 DISCREPANCIES

- A. The contractor shall check all drawings furnished to him immediately upon their receipt and shall promptly notify the owner of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings in general govern small scale drawings. The contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby. Where no figures or notations are given, the plans shall be followed

- B. Omissions from the Drawings or Specifications or the erroneous description of details of work which are manifestly necessary to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or erroneously described details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.
- C. If any part of the Specifications or Drawings appears unclear or contradictory, apply to Owner's Representative for interpretation and decision as early as possible, including during bidding period. Do not proceed with such work without Owner Representatives decision. Beginning work of any Section constitutes acceptance of conditions.

#### 1.9 CHANGES

- A. The Contractor shall be responsible to make and obtain approval from the Owner's Representative for all necessary adjustments in piping and equipment layouts as required to accommodate the relocations of equipment and/or devices, which are affected by any approved authorized changes or Product substitutions. All changes shall be clearly indicated on the "Record" drawings.

#### 1.10 SUBMITTALS

- A. Refer to Division 01 for additional requirements.
- B. The manufacturer, contractor or supplier shall include a written statement that the submitted equipment, hardware or accessory complies with the requirement of that particular specification section.
- C. The manufacturer shall resubmit the specification section showing compliance with each respective paragraphs and specified items and features in that particular specification section.
- D. All exceptions shall be clearly identified by referencing respective paragraph and other requirements along with proposed alternative.
- E. Note that prior to acceptance of submittals for review, a submittal schedule shall be submitted to the Owner's Representative.
- F. Submit all Division 26 shop drawings and product data grouped and referenced by the specification technical section number in one complete submittal package.
- G. Shop Drawings:
  - 1. Include installation details of equipment indicating proposed location, layout and arrangement, accessories, piping, and other items that must be shown to assure a coordinated installation.
  - 2. Indicate adequate clearance for operation, maintenance, and replacement of operating equipment devices.
  - 3. If equipment is rejected, revise drawings to show acceptable equipment and resubmit.
  - 4. Whenever more than one (1) manufacturer's product is specified, the first named product is the basis of design used in the Drawings and the use of alternate-named manufacturer's products or substitutes may require modifications to the design.
  - 5. The Contractor shall be responsible for all equipment ordered and/or installed prior to receipt of shop drawings returned from the Owner's Representative bearing the Owner's

Representative stamp of "Reviewed". All corrections or modifications to the equipment as noted on the shop drawings shall be performed and equipment removed from the job site at the request of the Owner's Representative without additional compensation.

6. Manufacturer's Data: For each manufactured item, provide current manufacturer's descriptive literature of cataloged products, certified equipment drawings, diagrams, performance and characteristic curves if applicable, and catalog cuts.
7. Standard Compliance: When materials or equipment provided by the Contractor must conform to the standards of organizations such as American National Standards Institute (ANSI) or UL, submit proof of such conformance to the Owner Representative for approval. If an organization uses a label or listing to indicate compliance with a particular standard, the label or listing will be acceptable evidence, unless otherwise specified. In lieu of the label or listing, submit a certificate from an independent testing organization, which is competent to perform acceptance testing and is approved by the Owner Representative. The certificate shall state that the item has been tested in accordance with the specified organization's test methods and that the item conforms to the specified organization's standard.
8. Certified Test Reports: Before delivery of materials and equipment, certified copies of all test reports specified in individual sections shall be submitted for approval.
9. Certificates of Compliance or Conformance: Submit manufacturer's certifications as required on products, materials, finish, and equipment indicated in the technical sections. Certifications shall be documents prepared specifically for this Contract. Pre-printed certifications and copies of previously submitted documents will not be acceptable. The manufacturer's certifications shall name the appropriate products, equipment, or materials and the publication specified as controlling the quality of that item. Certification shall not contain statements to imply that the item does not meet requirements specified, such as "as good as"; or "achieve the same end use and results as materials formulated in accordance with the referenced publications"; or "equal or exceed the service and performance of the specified material." Certifications shall simply state that the item conforms to the requirements specified. Certificates shall be printed on the manufacturer's letterhead and shall be signed by the manufacturer's official authorized to sign certificates of compliance or conformance.

- H. The Contractor shall submit all passcodes and passwords for any hardware and software required for the operations and troubleshooting in all systems and components no less than fourteen (14) calendar days prior to Final Completion.

#### 1.11 PROJECT RECORD DOCUMENTS

- A. Refer to Division 01 for additional requirements.

1. All changes, deviations and information recorded on the "Project Record Drawings" set during Construction shall be redrafted using the latest version of AutoCAD or Revit, where applicable.
2. Submit completed shop drawings to the Owner prior to completion in digital format.
3. Contractor hand-marked or drafted redlined "Project Record Drawings" will not be accepted.

#### 1.12 PRODUCT ALTERNATIVES OR SUBSTITUTIONS

- A. Refer to General Conditions and Division 01 for additional requirements.

**1.13 OPERATING INSTRUCTIONS**

- A. Furnish approved operating instructions for systems and equipment indicated in the technical sections for use by operation and maintenance personnel.

**1.14 MANUFACTURER'S RECOMMENDATIONS**

- A. Where installation procedures or any part thereof are required to be in accordance with manufacturer's recommendations, furnish printed copies of the recommendations prior to installation. Installation of the item shall not proceed until recommendations are received. Failure to furnish recommendations shall be cause for rejection of the equipment or material.

**1.15 DELIVERY AND STORAGE**

- A. Refer to Division 01 for additional requirements.
- B. Handle, store, and protect equipment and materials in accordance with the manufacturer's recommendations and with the requirements of NFPA 70B P, Appendix I, titled "Equipment Storage and Maintenance During Construction." Replace damaged or defective items with new items.

**1.16 GUARANTEE**

- A. Except as may be specified under other sections in the Specifications, guarantee all equipment furnished under the Specifications for a period of one year from date of project acceptance against defective workmanship and material and improper installation. Upon notification of failure, correct deficiency immediately and without cost to the Owner.
- B. Standard warranty of manufacturer shall apply for replacement of parts after expiration of the above period. Manufacturer shall furnish replacement parts to the Owner for their service agency as directed.

**PART 2 - PRODUCTS**

**2.1 COMPETITIVE PRODUCTS**

- A. Unless otherwise noted, any reference in the Specification to any article, device, product, material, fixture, form, or type of construction by name, make, or catalog number shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may at his option propose substitutions for such material in accordance with the substitution procedure outlined in the Contract Documents.

**2.2 MATERIALS**

- A. Provide all new materials and equipment, free from any defects, in first-class condition, and suitable for the space provided. Provide materials and equipment approved by UL authority having jurisdiction approved testing agency, wherever standards have been established by that agency.

- B. Where two or more units of the same class of material or equipment are required, provide products of a single manufacturer. Component parts of units or equipment need not be products of the same manufacturer.
- C. Unless otherwise indicated, provide materials and equipment which are the standard products of manufacturers regularly engaged in the production of such materials and equipment. Provide the manufacturers' latest standard design that conforms to these Specifications.
- D. Provide materials and equipment with manufacturers' standard finish system, except where otherwise specified. Provide manufacturers' standard finish color, except where specific color is indicated. If manufacturer has no standard color, finish equipment with ANSI Number 61, light gray color.
- E. Environmental and Seismic Conditions: Material and Equipment shall be designed to insure satisfactory operation and operational life in the environmental and seismic conditions which will prevail where they are being installed. Electrical equipment and enclosures shall be designed, constructed and certified to withstand external loading conditions as prescribed by the California Building Code for the locations of the equipment. Supplied equipment shall either be shake table tested and certified or comprehensive seismic calculations shall be provided. All seismic calculations and structural drawings shall bear the seal of a Structural Professional Engineer currently licensed in the State of California.

### PART 3 - EXECUTION

#### 3.1 GENERAL

- A. Obtain and pay for all permits and inspections, including any independent testing required to verify standard compliance, and deliver certificates for same to the Owner's Representative.

#### 3.2 WORK RESPONSIBILITIES

- A. The drawings indicate diagrammatically the desired locations or arrangement of piping, equipment, etc., and are to be followed as closely as possible. Proper judgment must be exercised in executing the work to secure the best possible installation in the available space and to overcome local difficulties due to space limitations or interference with structural conditions.
- B. The Contractor is responsible for the correct placing of Work and the proper location and connection of Work in relation to the work of other trades. Advise appropriate trade as to locations of access panels.
- C. In the event changes in the indicated locations or arrangements are necessary, due to developed conditions in the construction or rearrangement of furnishings or equipment, such changes shall be made without extra cost, providing the change is ordered before the conduit runs, etc. and work directly connected to same is installed and no extra materials are required.
- D. Where equipment is furnished by others, verify dimensions and the correct locations of this equipment before proceeding with the roughing-in of connections.
- E. All scaled and figured dimensions are approximate of typical equipment of the class indicated. Before proceeding with any work, carefully check and verify all dimensions, sizes, etc. with the

drawings to see that the equipment will fit into the spaces provided without violation of applicable codes.

- F. Should any changes to the Work indicated on the Drawings or described in the Specifications be necessary in order to comply with the above requirements, notify the Owner immediately and cease work on all parts of the contract, which are affected until approval for any required modifications to the construction has been obtained from the Owner.
- G. Be responsible for any cooperative work, which must be altered due to lack of proper supervision or failure to make proper provisions in time. Such changes shall be under direction of the Owner and shall be made to his satisfaction. Perform all Work with competent and skilled personnel.
- H. The electrical drawings do not indicate all fittings, hardware, or appurtenances required for a complete operating installation.
- I. Wiring diagrams are not intended to indicate the exact course of raceways.
- J. One-line and riser diagrams are only schematics and do not show physical arrangements of equipment.
- K. All workmanship, including aesthetic as well as electrical aspects of the Work, shall be of the highest quality consistent with the best practices of the trade.
- L. Replace or repair, without additional compensation, any Work, which, in the opinion of the Owner, does not comply with these requirements.

### 3.3 CLEANING & PAINTING OF EQUIPMENT

- A. Refer to Division 09 for additional requirements where provided.
- B. Factory Applied:
  - 1. Electrical equipment shall have factory-applied painting systems, which shall, as a minimum, meet the requirements of NEMA ICS 6 corrosion-resistance test, except equipment specified to meet requirements of ANSI C37.20 shall have a finish as specified in ANSI C37.20.
  - 2. Refer to individual sections of this Division for more stringent requirements.
- C. Field Applied: Paint electrical equipment as required to touch up, to match finish on other equipment in adjacent spaces, or to meet safety criteria.
- D. After installation, all metal finishes shall be polished and cleaned of all dirt, rust, cement, plaster, grease, and paint.

END OF SECTION 260000

## SECTION 260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Building wires and cables rated 600 V and less.
  - 2. Connectors, splices, and terminations rated 600 V and less.
- B. Related Requirements:
  - 1. Section 260533 "Raceways and Boxes for Electrical Systems"
  - 2. Section 260553 "Identification for Electrical Systems."

#### 1.3 DEFINITIONS

- A. ASTM: American Society of Testing Materials.
- B. ICEA: Insulated Cable Engineers Association.
- C. IEEE: Institute of Electrical & Electronics Engineers.
- D. NEMA: National Electrical Manufacturers Association.
- E. NETA ATS: InterNational Electrical Testing Association - Acceptance Testing Specification.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: Submit manufacturer's technical data for each type of product, indicating conductor/cable construction, insulation material, thickness of insulation, jacket, cable stranding, and voltage rating of each type of conductor/cable specified, splices and terminations. Indicate date and place of manufacture for each conductor/cable, cable, splice and termination.
- B. Manufacturer's ISO certification.

#### 1.5 QUALITY ASSURANCE

- A. General Requirements: The low voltage power conductors and cable shall be copper, minimum 600V rated unless otherwise indicated. Aluminum conductors and cables shall not be accepted unless otherwise indicated.

- B. Materials and installation shall meet or exceed requirements in the following referenced standards and shall be listed and labelled by UL.
  - 1. ICEA S-95-658/ NEMA WC 70.
  - 2. UL 1072.
  - 3. IEEE.
  - 4. ASTM.
  - 5. NEMA.
- C. Conductors and cables shall be of the same manufacturer and shipped to the job site in original unbroken reels.
- D. Conductors and cables shall be manufactured with in twelve (12) months of installation. Date of manufacture shall be clearly marked on conductors or conductor reels.
- E. Manufacturer shall have minimum ten (10) years experience in the manufacturer of conductors and cables similar to those specified on this project.
- F. Manufacturer shall have ISO 9001 and ISO 9002 certification.
- G. All conductors and cables shall be new and supplied by a local distributor.
- H. If alternate manufacturer of products other than what are specified in this section are submitted, all necessary documents not limited to cut sheets, technical information, test reports from recognized testing labs and factory test reports shall be submitted to the satisfaction of the owner/engineer to ensure quality and conformance to the specifications. Additional testing shall be undertaken if it is concluded by the owner/engineer that the submitted test reports are either insufficient or do not include all tests necessary for product acceptance. The tests shall be conducted by a recognized lab acceptable to the owner/engineer and all tests shall be witnessed by owner's/engineer's personnel. All testing procedures and test results shall be satisfactory to the owner/engineer. Contractor shall be responsible for arranging the tests, for transportation, food and lodging for minimum of one owner's/engineer's representative to witness the test at the testing lab. Include all costs for the above in the bid.
- I. Conductors, cables, splices and terminations shall be manufactured within twelve (12) months of installation. Each item shall have a permanent marking on the product or the original manufacturers' package indicating the date of manufacture unless otherwise noted.

## PART 2 - PRODUCTS

### 2.1 CONDUCTORS AND CABLES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following manufacturers:
  - 1. General Cable Technologies Corporation.
  - 2. Southwire Incorporated
  - 3. Alpha Wire.
  - 4. Belden Inc.
  - 5. Encore Wire Corporation..

- B. Conductor Material: Electrical grade, soft drawn annealed copper, 98 percent conductivity, and fabricated in accordance with ASTM and ICEA standards. Minimum size is number 12 for branch circuits, number 14 stranded for control wiring. Aluminum conductors are not permitted. **Copper** Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- C. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type XHHW-2.
- D. Provide separate neutral with each branch circuit serving outlets. When dedicated neutrals are provided, use color spiral to match associated phase.

## 2.2 CONNECTORS AND SPLICES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following manufacturers:
  - 1. Ideal Industries, Inc.
  - 2. IlSCO
  - 3. NSi Industries LLC.
  - 4. O-Z/Gedney; a brand of Emerson Industrial Automation.
  - 5. 3M; Electrical Markets Division.
  - 6. TE Connectivity - Raychem.
- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.
- C. Copper conductors shall be terminated in copper or bronze mechanical connectors or lugs or tool applied compression connections made of copper for all connections except those on wiring devices.
- D. Splices in wires No. 10 and smaller shall be made with twist-on splicing connector in accordance with UL486-C. Connections in wires No. 8 and larger shall be made with compression type connectors in accordance with UL486-A and wrapped with insulated tape in accordance with UL501. Insulating tape shall be applied in a minimum of two layers of half wrap or built to match the overall insulation of the wire.
- E. Pressure type connectors are not permitted.

## 2.3 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: UL Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.

## PART 3 - EXECUTION

### 3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

**3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS**

- A. Branch Circuits Concealed in Ceilings, Walls, and Partitions: XHHW-2.
- B. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type XHHW-2, single conductors in raceway
- C. Branch Circuits Installed Below Raised Flooring: Type XHHW-2, single conductors in raceway
- D. Branch Circuits in Cable Tray: TC rated Type XHHW-2, single conductors larger than No. 1/0 AWG
- E. Cord Drops and Portable Appliance Connections: Type SO, hard service cord with stainless-steel, wire-mesh, strain relief device at terminations to suit application.

**3.3 INSTALLATION OF CONDUCTORS AND CABLES**

- A. All conductors and cables shall be installed in a raceway.
- B. Before installing conductors and cables in existing conduits, verify the continuity of each conduit; each surface conduit is properly supported per code and clear of any debris.
- C. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- D. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- E. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- F. Install exposed cables parallel and perpendicular to surfaces of exposed structural members and follow surface contours where possible.
- G. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

**3.4 CONNECTIONS**

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm) of slack.

**3.5 IDENTIFICATION**

- A. Each conductor shall be factory color coded by conductor manufacturer. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor and identify as spare conductor.

**3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS**

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

**3.7 FIRESTOPPING**

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly.

**3.8 FIELD QUALITY CONTROL**

- A. Perform the following tests and inspections:
  - 1. Perform each visual and mechanical inspection and electrical tests stated in latest NETA Acceptance Testing Specification section 7.3.2 (Inspection and Test Procedures-Cables, Low Voltage-600V Maximum). Certify compliance with test parameters per NETA tables.
- B. Test and Inspection Reports: Prepare a written report to record the following:
  - 1. Procedures used.
  - 2. Results that comply with requirements. Include color scan images.
  - 3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- C. Cables will be considered defective if they do not pass tests and inspections.

**END OF SECTION 260519**

## SECTION 260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes: Grounding systems and equipment.

#### 1.3 Definitions:

- A. NETA ATS: InterNational Electrical Testing Association - Acceptance Testing Specification.
- B. NETA MTS: InterNational Electrical Testing Association - Maintenance Testing Specification.
- C. NFPA : National Fire Protection Association.
- D. IEEE: Institute of Electrical and Electronics Engineers

#### 1.4 ACTION SUBMITTALS

- A. Product Data: Submit manufacturer's technical catalog cuts for each type of product indicated.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports. Submit written test reports including the following:
  - 1. Test procedures used.
  - 2. Test results that comply with requirements.
  - 3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.

#### 1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For grounding to include in emergency, operation, and maintenance manuals. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:

#### 1.7 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

- B. Comply with UL 467 for grounding and bonding materials and equipment.

## **PART 2 - PRODUCTS**

### **2.1 GROUNDING ELECTRODES, CONDUCTORS, CONNECTOR, BUS:**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following, or equal:
  - 1. Grounding Connectors:
    - a. Erico - Pentair Electrical Fastening Solutions
    - b. Burndy – A Hubbell Company.
    - c. Ideal Industries, Inc.
    - d. O-Z/Gedney Co. - A brand of Emerson Industrial Automation.
    - e. Thomas & Betts - A Member of the ABB Group.
  - 2. Grounding Conductors and cables:
    - a. Southwire
    - b. American Insulated Wire
    - c. Okonite

### **2.2 CONDUCTORS**

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
  - 1. Solid Conductors: ASTM B 3.
  - 2. Stranded Conductors: ASTM B 8.
  - 3. Tinned Conductors: ASTM B 33.
  - 4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.
  - 5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
  - 6. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
  - 7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.

### **2.3 CONNECTORS**

- A. Listed and labeled by UL for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors, Rods and Pipes: Copper or copper alloy, pressure type with at least two bolts.

1. Pipe Connectors: Clamp type, sized for pipe.

C. Bus-bar Connectors: Mechanical type, cast silicon bronze, solderless compression-type wire terminals, and long-barrel, two-bolt connection to ground bus bar.

## **2.4 GROUNDING ELECTRODES**

## **PART 3 - EXECUTION**

### **3.1 APPLICATIONS**

A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.

B. Isolated Grounding Conductors: Green-colored insulation with continuous yellow stripe. On feeders with isolated ground, identify grounding conductor where visible to normal inspection, with alternating bands of green and yellow tape, with at least three bands of green and two bands of yellow.

C. Conductor Terminations and Connections:

1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
2. Connections to Structural Steel: Welded connectors.

### **3.2 EQUIPMENT GROUNDING**

A. Install insulated equipment grounding conductors with all feeders and branch circuits in the same conduit containing phase and neutral conductors. Comply with NFPA 70, Article 250, for types, sizes, and quantities of equipment grounding conductors, unless specific types, larger sizes, or more conductors than required by NFPA 70 are indicated.

B. Air-Duct Equipment Circuits: Install insulated equipment grounding conductor to duct-mounted electrical devices operating at 120 V and more, including air cleaners, heaters, dampers, humidifiers, and other duct electrical equipment. Bond conductor to each unit and to air duct and connected metallic piping.

C. Isolated Equipment Enclosure Circuits: For designated equipment supplied by a branch circuit or feeder, isolate equipment enclosure from supply circuit raceway with a nonmetallic raceway fitting listed for the purpose. Install fitting where raceway enters enclosure and install a separate insulated equipment grounding conductor. Isolate conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service unless otherwise indicated.

D. Signal and Communication Equipment: In addition to grounding and bonding required by NFPA 70, provide a separate grounding system complying with requirements in TIA/ATIS J-STD-607-A.

1. For telephone, alarm, voice and data, and other communication equipment, provide No. 4 AWG minimum insulated grounding conductor in raceway from grounding electrode

system to each service location, terminal cabinet, wiring closet, and central equipment location.

2. Service and Central Equipment Locations and Wiring Closets: Terminate grounding conductor on a 1/4-by-4-by-12-inch (6.3-by-100-by-300-mm) grounding bus.
3. Terminal Cabinets: Terminate grounding conductor on cabinet grounding terminal.
4. All metallic conduits and cable tray shall be continuously bonded to maintain low resistance ground path and bonded back to the central equipment by the use of bonding jumpers where needed.

### 3.3 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
  1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
  2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
- C. Grounding for Steel Building Structure: Install a driven ground rod at base of each corner column and at intermediate exterior columns at distances not more than 60 feet (18 m) apart.

### 3.4 LABELING

- A. Comply with requirements in Section 260553 "Identification for Electrical Systems" for instruction signs. The label or its text shall be green.
- B. Install labels at the telecommunications bonding conductor and grounding equalizer and at the grounding electrode conductor where exposed.
  1. Label Text: "If this connector or cable is loose or if it must be removed for any reason, notify the facility manager."

### 3.5 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
  1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
  2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.
- C. Grounding system will be considered defective if it does not pass tests and inspections.

- D. Prepare test and inspection reports.
- E. Report measured ground resistances that exceed the following values:
  - 1. Power and Lighting Equipment or System with Capacity of 500 kVA and Less: 10 ohms.
  - 2. Power Distribution Units or Panelboards Serving Electronic Equipment: 3 ohm(s).
- F. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify EOR promptly and include recommendations to reduce ground resistance.

END OF SECTION 260526

## SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Hangers and supports for electrical equipment and systems.
  - 2. Construction requirements for concrete bases.
- B. Related Sections include the following:

#### 1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. RMC: Rigid metal conduit.

#### 1.4 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For the following:
  - 1. Steel slotted support systems.
- B. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following:

1. Trapeze hangers. Include Product Data for components.
2. Steel slotted channel systems. Include Product Data for components.
3. Equipment supports.

1.6 QUALITY ASSURANCE

- A. Comply with NFPA 70.

1.7 COORDINATION

- A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified together with concrete Specifications.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Allied Tube & Conduit: Part of Atkore International
    - b. Cooper B-Line, Inc.; a division of Eaton Inc.
    - c. ERICO International Corporation.
    - d. GS Metals Corp.
    - e. Thomas & Betts Corporation: A Member of the ABB Group.
    - f. Unistrut; Part of Atkore International.
    - g. Wesanco, Inc.
  2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
  3. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
  4. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
  5. Channel Dimensions: Selected for applicable load criteria.
  6. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Allied Tube & Conduit: a part of Atkore , International.
    - b. B-Line, Inc.; an Eaton Business.
    - c. Fabco Plastics Wholesale Limited.
    - d. Seasafe, Inc.
  7. Fittings and Accessories: Products of channel and angle manufacturer and designed for use with those items.
  8. Fitting and Accessory Materials: Same as channels and angles.
  9. Rated Strength: Selected to suit applicable load criteria.

- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
  - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - 1) Hilti Inc.
    - 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
    - 3) MKT Fastening, LLC.
    - 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
  - 2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
    - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
      - 2) Empire Tool and Manufacturing Co., Inc.
      - 3) Hilti Inc.
      - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
      - 5) MKT Fastening, LLC.
  - 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
  - 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
  - 5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
  - 6. Toggle Bolts: All-steel springhead type.
  - 7. Hanger Rods: Threaded steel.

## 2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

## **PART 3 - EXECUTION**

### **3.1 APPLICATION**

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by NFPA 70 and consistent with existing support spacing at building. Minimum rod size shall be 1/4 inch in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted or other support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
  - 1. Secure raceways and cables to these supports with two-bolt conduit clamps and single-bolt conduit clamps.

### **3.2 SUPPORT INSTALLATION**

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.
- C. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
  - 1. To Wood: Fasten with lag screws or through bolts.
  - 2. To New Concrete: Bolt to concrete inserts.
  - 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
  - 4. To Existing Concrete: Expansion anchor fasteners.
  - 5. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
  - 6. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.
- D. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

### **3.3 INSTALLATION OF FABRICATED METAL SUPPORTS**

- A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

**3.4 PAINTING**

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
  - 1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 260529

## SECTION 260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Metal conduits, tubing, and fittings.
  - 2. Metal wireways and auxiliary gutters.
  - 3. Surface raceways.
  - 4. Boxes, enclosures, and cabinets.

#### 1.3 DEFINITIONS

- A. EMT: Electrical metal tubing
- B. ENT: Electrical non-metallic tubing
- C. GRC: Galvanized rigid steel conduit.
- D. IMC: Intermediate metal conduit.
- E. LFMC: Liquidtight flexible metal conduit
- F. RNC: Rigid non-metallic conduit

#### 1.4 QUALITY ASSURANCE:

- A. Each conduit shall bear manufacturer's trademark and UL label.
- B. Each type of conduit and fittings shall be of a single manufacturer. Multiple manufacturer's of the same material are not acceptable.
- C. Comply with California Electric Code (CEC)

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.

- B. Seismic Qualification Certificates: For enclosures, cabinets, and conduit racks and their mounting provisions, including those for internal components, from manufacturer.
1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
  2. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
  3. Detailed description of conduit support devices and interconnections on which the certification is based and their installation requirements.

## PART 2 - PRODUCTS

### 2.1 METAL CONDUITS, TUBING, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Allied Tube & Conduit; a Tyco International Ltd. Co.
  2. Electri-Flex Company.
  3. O-Z/Gedney; a brand of EGS Electrical Group.
  4. Republic Conduit.
  5. Robroy Industries.
  6. Thomas & Betts Corporation.
  7. Western Tube and Conduit Corporation.
  8. Wheatland Tube Company; a division of John Maneely Company.
- B. Listing and Labeling: Metal conduits, tubing, and fittings shall be UL listed and labeled as defined in NFPA 70, and marked for intended location and application.
- C. GRC: Comply with ANSI C80.1 and UL 6.
- D. EMT: Comply with ANSI C80.3 and UL 797.
- E. FMC: Comply with UL 1; zinc-coated steel.
- F. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
- G. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
1. Fittings for EMT:
    - a. Material: Steel.
    - b. Type: Setscrew.
  2. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.
  3. Coating for Fittings for PVC-Coated Conduit: Minimum thickness of 0.040 inch, with overlapping sleeves protecting threaded joints.
- H. PVC-Coated Fittings:
1. Fittings shall be Form 8 with a V-Seal tongue-in-groove gasket and supplied with plastic encapsulated stainless steel cover screws. Form 8 fittings shall be UL Type 4X listed and IEC IP69 certified. Fittings shall be from the same manufacturer as the conduit in order to

maintain system continuity and warranty. PVC Coated fittings for hazardous locations must be UL 1203 listed.

- I. Joint Compound for IMC, GRC, or ARC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

## 2.2 METAL WIREWAYS AND AUXILIARY GUTTERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Cooper B-Line, Inc.
  2. Hoffman; a Pentair company.
  3. Mono-Systems, Inc.
  4. Square D; a brand of Schneider Electric.
- B. Description: Sheet metal, complying with UL 870 and NEMA 250, Type 1 unless otherwise indicated, and sized according to NFPA 70.
  1. Metal wireways installed outdoors shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- D. Wireway Covers: Screw-cover type unless otherwise indicated.
- E. Finish: Manufacturer's standard enamel finish.

## 2.3 SURFACE RACEWAYS

- A. Listing and Labeling: Surface raceways and tele-power poles shall be UL listed and labeled as defined in NFPA 70, and marked for intended location and application.
- B. Surface Metal Raceways: Galvanized steel with snap-on covers complying with UL 5. Manufacturer's standard enamel finish in color selected by Architect.
  4. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Hubbell Wiring Systems
    - b. Wiremold / Legrand.
    - c. Mono-Systems, Inc.
    - d. Panduit Corp.

## 2.4 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Cooper Technologies Company; Cooper Crouse-Hinds.
  2. EGS/Appleton Electric.
  3. FSR Inc.
  4. Hoffman; a Pentair company.
  5. Hubbell Incorporated; Killark Division.
  6. O-Z/Gedney; a brand of EGS Electrical Group.
  7. RACO; a Hubbell Company.
  8. Robroy Industries.
  9. Thomas & Betts Corporation.
  10. Wiremold / Legrand.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.
- D. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- E. Box extensions used to accommodate new building finishes shall be of same material as recessed box.
- F. Gangable boxes are prohibited.
- G. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 1 with continuous-hinge cover with flush latch unless otherwise indicated.
1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
  2. Interior Panels: Steel; all sides finished with manufacturer's standard enamel.
- H. Cabinets:
1. NEMA 250, Type 1 galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
  2. Hinged door in front cover with flush latch and concealed hinge.
  3. Key latch to match panelboards.
  4. Metal barriers to separate wiring of different systems and voltage.
  5. Accessory feet where required for freestanding equipment.
  6. Nonmetallic cabinets shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

### PART 3 - EXECUTION

#### 3.1 RACEWAY APPLICATION

- A. Indoors: Apply raceway products as specified below unless otherwise indicated:
1. Exposed, Not Subject to Physical Damage: EMT.
  2. Exposed, Not Subject to Severe Physical Damage: EMT.
  3. Exposed and Subject to Severe Physical Damage: GRC. Raceway locations include the following:
    - a. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.

4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
  5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
  6. Damp or Wet Locations: GRC.
  7. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4 stainless steel in damp or wet locations.
- B. Minimum Raceway Size: 3/4-inch trade size.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
  2. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with this type of conduit. Patch and seal all joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Use sealant recommended by fitting manufacturer and apply in thickness and number of coats recommended by manufacturer.
  3. EMT: Use setscrew, steel fittings. Comply with NEMA FB 2.10.
  4. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.
- D. Install surface raceways only where indicated on Drawings where specific details and field conditions are noted.
- E. Do not install nonmetallic conduit where ambient temperature exceeds 120 deg F.

### 3.2 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- C. Complete raceway installation before starting conductor installation.
- D. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
- E. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches of changes in direction.
- F. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
- G. Support conduit within 12 inches of enclosures to which attached.
- H. Stub-ups to Above Recessed Ceilings:

1. Use EMT, IMC, or RMC for raceways.
  2. Use a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure.
- I. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- J. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with this type of conduit. Patch and seal all joints, nicks, and scrapes with PVC touch-up compound after installing conduits and fittings. Use sealant recommended by fitting manufacturer and apply in thickness and number of coats recommended by manufacturer. Coat field-cut threads on PVC-coated raceway with a corrosion-preventing conductive compound prior to assembly. All installers shall be certified by the manufacturer and be able to present a valid unexpired installer certification card prior to installation beginning.
- K. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- L. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated throat metal bushings on 1-1/2-inch trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- M. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- N. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- O. Cut conduit perpendicular to the length. For conduits 2-inch trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- P. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 250lbs (113 kgs) tensile strength. Leave at least 12 inches of slack at each end of pull wire. Provide acrylic identification tags (2"X4") at each end indicating the source. Cap underground raceways designated as spare above grade alongside raceways in use.
- Q. Surface Raceways:
1. Install surface raceway with a minimum 2-inch radius control at bend points.
  2. Secure surface raceway with screws or other anchor-type devices at intervals not exceeding 48 inches and with no less than two supports per straight raceway section. Support surface raceway according to manufacturer's written instructions. Tape and glue are not acceptable support methods.
- R. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.
- S. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:

1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
  2. Where otherwise required by NFPA 70.
- T. Expansion-Joint Fittings:
1. Install in each run of aboveground RNC that is located where environmental temperature change may exceed 30 deg F and that has straight-run length that exceeds 25 feet. Install in each run of aboveground RMC and EMT conduit that is located where environmental temperature change may exceed 100 deg F and that has straight-run length that exceeds 100 feet.
  2. Install fitting(s) that provide expansion and contraction for at least 0.00041 inch per foot of length of straight run per deg F of temperature change for PVC conduits. Install fitting(s) that provide expansion and contraction for at least 0.000078 inch per foot of length of straight run per deg F of temperature change for metal conduits.
  3. Install expansion fittings at all locations where conduits cross building or structure expansion joints.
  4. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at time of installation. Install conduit supports to allow for expansion movement.
- U. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches of flexible conduit for, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
1. Use LFMC in damp or wet locations-
- V. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a raintight connection between box and cover plate or supported equipment and box.
- W. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- X. Locate boxes so that cover or plate will not span different building finishes.
- Y. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- Z. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.
- AA. Set metal floor boxes level and flush with finished floor surface.
- BB. Set nonmetallic floor boxes level. Trim after installation to fit flush with finished floor surface.
- 3.3 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS
- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

**3.4 FIRESTOPPING**

- A. Install firestopping at penetrations of fire-rated floor and wall assemblies.

**3.5 PROTECTION**

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
  - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
  - 2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

**END OF SECTION 260533**

## SECTION 260544 - SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
  - 2. Grout.
  - 3. Silicone sealants.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

### PART 2 - PRODUCTS

#### 2.1 SLEEVES

- A. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies: Galvanized-steel sheet; 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint, with tabs for screw-fastening the sleeve to the board.
- B. Sleeves for Rectangular Openings:
  - 1. Material: Galvanized sheet steel.
  - 2. Minimum Metal Thickness:
    - a. For sleeve cross-section rectangle perimeter less than 50 inches (1270 mm) and with no side larger than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).
    - b. For sleeve cross-section rectangle perimeter 50 inches (1270 mm) or more and one or more sides larger than 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

#### 2.2 GROUT

- A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.

- B. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- C. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

## **2.3 SILICONE SEALANTS**

- A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.

## **PART 3 - EXECUTION**

### **3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS**

- A. Comply with NECA 1.
- B. Comply with NEMA VE 2 for cable tray and cable penetrations.
- C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
  - 1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
    - a. Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.
    - b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.
  - 2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
  - 3. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed or unless seismic criteria require different clearance.
  - 4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.
- D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:
  - 1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
  - 2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.

**END OF SECTION 260544**

## SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Color and legend requirements for raceways, conductors, and warning labels and signs.
2. Labels.
3. Bands and tubes.
4. Tapes and stencils.
5. Tags.
6. Signs.
7. Cable ties.
8. Paint for identification.
9. Fasteners for labels and signs.

#### 1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for electrical identification products.

### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Comply with NFPA 70.
- B. Comply with ANSI Z535.4 for safety signs and labels.
- C. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

#### 2.2 COLOR AND LEGEND REQUIREMENTS

A. Raceways and Cables Carrying Circuits at 600 V or Less:

1. Black letters on an orange field.
2. Legend: Indicate voltage and system or service type.

- B. Color-Coding for Phase- and Voltage-Level Identification, 600 V or Less: Use colors listed below for ungrounded service' feeder and branch-circuit conductors.
1. Color shall be factory applied.
  2. Colors for 208/120-V Circuits:
    - a. Phase A: Black.
    - b. Phase B: Red.
    - c. Phase C: Blue.
  3. Colors for 480/277-V Circuits:
    - a. Phase A: Brown.
    - b. Phase B: Orange.
    - c. Phase C: Yellow.
  4. Color for Neutral: White.
  5. Color for Equipment Grounds: Green.
  6. Colors for Isolated Grounds: Green with white stripe.
- C. Warning Label Colors:
1. Identify system voltage with black letters on an orange background.
- D. Equipment Identification Labels:
1. Black letters on a white field for equipment connected to normal power and Red letters on a white field for equipment connected to emergency/standby power unless otherwise indicated

## 2.3 LABELS

- A. Vinyl Wraparound Labels: Preprinted, flexible labels laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing label ends.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. HellermannTyton.
    - c. Marking Services, Inc.
    - d. Panduit Corp.
    - e. Seton Identification Products.
- B. Snap-around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeves, with diameters sized to suit diameters and that stay in place by gripping action.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. HellermannTyton.
    - c. Marking Services, Inc.

- d. Panduit Corp.
  - e. Seton Identification Products.
- C. Self-Adhesive Wraparound Labels: Preprinted, 3-mil-thick, polyester flexible label with acrylic pressure-sensitive adhesive.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. Grafoplast Wire Markers.
    - c. Ideal Industries, Inc.
    - d. Marking Services, Inc.
    - e. Panduit Corp.
    - f. Seton Identification Products.
  - 2. Self-Lamination: Clear; UV-, weather- and chemical-resistant; self-laminating, protective shield over the legend. Labels sized such that the clear shield overlaps the entire printed legend.
  - 3. Marker for Labels: Machine-printed, permanent, waterproof, black ink recommended by printer manufacturer.
- D. Self-Adhesive Labels: Vinyl, thermal, transfer-printed, 3-mil-thick, multicolor, weather- and UV-resistant, pressure-sensitive adhesive labels, configured for intended use and location.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. Grafoplast Wire Markers.
    - c. HellermannTyton.
    - d. Ideal Industries, Inc.
    - e. Marking Services, Inc.
    - f. Panduit Corp.
    - g. Seton Identification Products.
  - 2. Minimum Nominal Size:
    - a. 1-1/2 by 6 inches for raceway and conductors.
    - b. 3-1/2 by 5 inches for equipment.
    - c. As required by authorities having jurisdiction.

## 2.4 BANDS AND TUBES

- A. Snap-around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeves, 2 inches long, with diameters sized to suit diameters and that stay in place by gripping action.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. HellermannTyton.
    - c. Marking Services, Inc.

- d. Panduit Corp.
- B. Heat-Shrink Preprinted Tubes: Flame-retardant polyolefin tubes with machine-printed identification labels, sized to suit diameter and shrunk to fit firmly. Full shrink recovery occurs at a maximum of 200 deg F. Comply with UL 224.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. Panduit Corp.

## 2.5 TAPES AND STENCILS

- A. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Carlton Industries, LP.
    - b. HellermannTyton.
    - c. Ideal Industries, Inc.
    - d. Marking Services, Inc.
    - e. Panduit Corp.
- B. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; not less than 3 mils thick by 1 to 2 inches wide; compounded for outdoor use.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. Carlton Industries, LP.
    - c. emedco.
    - d. Marking Services, Inc.
- C. Tape and Stencil: 4-inch-wide black stripes on 10-inch centers placed diagonally over orange background and is 12 inches wide. Stop stripes at legends.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. HellermannTyton.
    - b. LEM Products Inc.
    - c. Marking Services, Inc.
    - d. Seton Identification Products.
  - 2. Tag: Type IID:
    - a. Reinforced, detectable three-layer laminate, consisting of a printed pigmented woven scrim, a solid aluminum-foil core, and a clear protective film that allows

- inspection of the continuity of the conductive core; bright-colored, continuous-printed on one side with the inscription of the utility, compounded for direct-burial service.
- b. Width: 6 inches.
- c. Overall Thickness: 5 mils.
- d. Foil Core Thickness: 0.35 mil.
- e. Weight: 34 lb/1000 sq. ft..
- f. Tensile according to ASTM D 882: 300 lbf and 12,500 psi.

- D. Stenciled Legend: In nonfading, waterproof, black ink or paint. Minimum letter height shall be inchunless otherwise indicated. If requested by Architect, match Owner's existing legend type, size etc.

## 2.6 TAGS

- A. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch, with stamped legend, punched for use with self-locking cable tie fastener.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. Carlton Industries, LP.
    - c. emedco.
    - d. Marking Services, Inc.
    - e. Seton Identification Products.

## 2.7 SIGNS

- A. Baked-Enamel Signs:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Carlton Industries, LP.
    - b. Champion America.
    - c. emedco.
    - d. Marking Services, Inc.
  - 2. Preprinted aluminum signs, high-intensity reflective, punched or drilled for fasteners, with colors, legend, and size required for application.
  - 3. 1/4-inch grommets in corners for mounting.
  - 4. Nominal Size: 7 by 10 inches.
- B. Metal-Backed Butyrate Signs:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Brady Corporation.
    - b. Champion America.
    - c. emedco.
    - d. Marking Services, Inc.

2. Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs, with 0.0396-inch galvanized-steel backing, punched and drilled for fasteners, and with colors, legend, and size required for application.
3. 1/4-inch grommets in corners for mounting.
4. Nominal Size: 10 by 14 inches.

C. Laminated Acrylic or Melamine Plastic Signs:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Brady Corporation.
  - b. Carlton Industries, LP.
  - c. emedco.
  - d. Marking Services, Inc.
2. Engraved legend.
3. Thickness:
  - a. For signs up to 20 sq. in., minimum 1/16 inch thick.
  - b. For signs larger than 20 sq. in., 1/8 inch thick.
  - c. Engraved legend with black letters on white face background for equipment connected to normal power and red letters on white face background for equipment connected to emergency/standby power. Verify with Architect if legend has to match Owner's existing signs.
  - d. Punched or drilled for mechanical fasteners with 1/4-inch grommets in corners for mounting.
  - e. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

2.8 CABLE TIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. HellermannTyton.
  2. Ideal Industries, Inc.
  3. Marking Services, Inc.
  4. Panduit Corp.
- B. General-Purpose Cable Ties: Fungus inert, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.
  1. Minimum Width: 3/16 inch.
  2. Tensile Strength at 73 Deg F according to ASTM D 638: 12,000 psi.
  3. Temperature Range: Minus 40 to plus 185 deg F.
  4. Color: Black, except where used for color-coding.
- C. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.
  1. Minimum Width: 3/16 inch.
  2. Tensile Strength at 73 Deg F according to ASTM D 638: 12,000 psi.

3. Temperature Range: Minus 40 to plus 185 deg F.
4. Color: Black.

D. Plenum-Rated Cable Ties: Self-extinguishing, UV stabilized, one piece, and self-locking.

1. Minimum Width: 3/16 inch.
2. Tensile Strength at 73 Deg F according to ASTM D 638: 7000 psi.
3. UL 94 Flame Rating: 94V-0.
4. Temperature Range: Minus 50 to plus 284 deg F.
5. Color: Black.

## 2.9 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Retain paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Self-Adhesive Identification Products: Before applying electrical identification products, clean substrates of substances that could impair bond, using materials and methods recommended by manufacturer of identification product.

### 3.2 INSTALLATION

- A. Verify and coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and operation and maintenance manual. Use consistent designations throughout Project.
- B. Install identifying devices before installing acoustical ceilings and similar concealment.
- C. Verify identity of each item before installing identification products.
- D. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and operation and maintenance manual.
- E. Apply identification devices to surfaces that require finish after completing finish work.
- F. Install signs with approved legend to facilitate proper identification, operation, and maintenance of electrical systems and connected items.
- G. System Identification for Raceways and Cables under 600 V: Identification shall completely encircle cable or conduit. Place identification of two-color markings in contact, side by side.

1. Secure tight to surface of conductor, cable, or raceway.
- H. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.
- I. Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch-high letters for emergency instructions at equipment used for power transfer. Refer to drawings for additional information.
- J. Elevated Components: Increase sizes of labels, signs, and letters to those appropriate for viewing from the floor.
- K. Accessible Fittings for Raceways: Identify the covers of each junction and pull box of the following systems with the wiring system legend and system voltage. System legends shall be as follows:
  1. "EMERGENCY POWER."
  2. "POWER."
  3. "UPS."
- L. Vinyl Wraparound Labels:
  1. Secure tight to surface of raceway or cable at a location with high visibility and accessibility.
  2. Attach labels that are not self-adhesive type with clear vinyl tape, with adhesive appropriate to the location and substrate.
- M. Self-Adhesive Wraparound Labels: Secure tight to surface at a location with high visibility and accessibility.
- N. Self-Adhesive Labels:
  1. On each item, install unique designation label that is consistent with wiring diagrams, schedules, and operation and maintenance manual.
  2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high label; where two lines of text are required, use labels 2 inches high.
- O. Heat-Shrink, Preprinted Tubes: Secure tight to surface at a location with high visibility and accessibility.
- P. Marker Tapes: Secure tight to surface at a location with high visibility and accessibility.
- Q. Self-Adhesive Vinyl Tape: Secure tight to surface at a location with high visibility and accessibility.
  1. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding.
- R. Tape and Stencil: Comply with requirements in painting Sections for surface preparation and paint application.
- S. Nonmetallic Preprinted Tags:
  1. Place in a location with high visibility and accessibility.
  2. Secure using general-purpose UV-stabilized in all areas except use plenum-rated cable ties in plenum areas.

T. Baked-Enamel Signs:

1. Attach signs that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on minimum 1-1/2-inch-high sign; where two lines of text are required, use signs minimum 2 inches high.

U. Metal-Backed Butyrate Signs:

1. Attach signs that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high sign; where two lines of text are required, use labels 2 inches high.

V. Laminated Acrylic or Melamine Plastic Signs:

1. Attach signs that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high sign; where two lines of text are required, use labels 2 inches high.

W. Cable Ties: General purpose, for attaching tags, except as listed below:

1. Outdoors: UV-stabilized nylon.
2. In Spaces Handling Environmental Air: Plenum rated.

### 3.3 IDENTIFICATION SCHEDULE

- A. Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment. Install access doors or panels to provide view of identifying devices.
- B. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, pull points, and locations of high visibility. Identify by system and circuit designation.
- C. Accessible Fittings for Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive labels containing the wiring system legend and system voltage. System legends shall be as follows:
1. "EMERGENCY POWER."
  2. "POWER."
  3. "UPS."
- D. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use self-adhesive wraparound labels to identify the phase.
1. Locate identification at changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
- E. Power-Circuit Conductor Identification, More Than 600 V: For conductors in vaults, pull and junction boxes, manholes, and handholes, use nonmetallic preprinted tags colored and marked to indicate phase, and a separate tag with the circuit designation.

- F. Control-Circuit Conductor Identification: For conductors and cables in pull and junction boxes, manholes, and handholes, use self-adhesive labels with the conductor or cable designation, origin, and destination.
- G. Control-Circuit Conductor Termination Identification: For identification at terminations, provide heat-shrink preprinted tubes with the conductor designation.
- H. Auxiliary Electrical Systems Conductor Identification: Self-adhesive vinyl tape that is uniform and consistent with system used by manufacturer for factory-installed connections.
  - 1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
- I. .
- J. Instructional Signs: Self-adhesive labels, including the color code for grounded and ungrounded conductors.
- K. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Metal-backed, butyrate warning signs.
  - 1. Apply to exterior of door, cover, or other access.
  - 2. For equipment with multiple power or control sources, apply to door or cover of equipment, including, but not limited to, the following:
    - a. Power-transfer switches.
    - b. Controls with external control power connections.
- L. Operating Instruction Signs: Laminated acrylic or melamine plastic signs.
- M. Emergency Operating Instruction Signs: Laminated acrylic or melamine plastic signs with white legend on a red background with minimum 3/8-inch-high letters for emergency instructions at equipment used for power transfer.
- N. Equipment Identification Labels:
  - 1. Indoor Equipment: Laminated acrylic or melamine plastic sign.
  - 2. Equipment to Be Labeled:
    - a. Panelboards: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be in the form of a engraved, laminated acrylic or melamine label.
    - b. Enclosures and electrical cabinets.
    - c. Access doors and panels for concealed electrical items.
    - d. Emergency system boxes and enclosures.
    - e. Push-button stations.
    - f. Contactors.
    - g. Remote-controlled switches, dimmer modules, and control devices.
    - h. Battery racks.
    - i. Monitoring and control equipment.

END OF SECTION

**5C: SECTION 281720 AIR SAMPLING SMOKE DETECTION SPECIFICATIONS**

## **SECTION 281720 – Air Sampling Smoke Detection**

### **1 General**

#### **1.1 Scope**

This document provides specification details of the VESDA-E VEP Air-sampling Smoke Detection (ASD) products to assist in their installation and commissioning. VESDA-E VEP range provides a single pipe and four pipe products. VESDA VEP ASD is referred to as ASD throughout this document.

#### **1.2 ASD System Information**

A Very Early Warning Fire Detection System like the VESDA-E VEP System shall be installed throughout the areas nominated on the drawings.

The ASD system shall consist of highly sensitive short wavelength LASER-based Smoke Detectors with aspirators connected to networks of sampling pipes.

When required, an optional Display unit may be provided to monitor each ASD detector.

#### **1.3 Approvals and Standards**

The ASD must be of a type submitted to, tested, approved, and/or listed to the Standards mentioned below by a Nationally Recognized Testing Laboratory (NRTL):

1. UL268 and UL268A: UL (Underwriters Laboratories Inc), USA.  
FM3230 (Factory Mutual), FM 3611-3810-3600 Class I, Division 2, Groups A, B, C, D (3020906), USA.  
Category 7259: CSFM (California State Fire Marshal), USA.

#### **1.4 Codes, Standards or Regulations**

The ASD shall be installed to comply with one or more of the following codes or standards:

1. NFPA 2001 – Clean Agent Fire Extinguishing Systems.

#### **1.5 Quality Assurance**

##### **1.5.1 Manufacturer**

1. The manufacturer shall have a minimum of 35 years production experience in the design and manufacture of high sensitivity air sampling smoke detection systems.

The manufacturer shall be certified as meeting ISO 9001:2008 for manufacturing.

##### **1.5.2 Equipment Supplier**

1. The equipment supplier shall be authorized trained by the manufacturer to calculate/design, install, test and maintain the ASD system.
2. The equipment supplier shall be able to produce a certificate of training from the manufacturer.

##### **1.5.3 Installer**

1. The equipment installer shall be authorized and trained by the manufacturer and shall have the ability to design a system based on code requirements.
2. The installer shall be capable of providing calculations, design, and testing documents upon request.

#### **1.5.4 Warranty**

1. The manufacturer shall guarantee the product by warranty for a period of two years.
2. Any damage to the ASD due to poor handling or operating outside its operation limits will void its warranty.
3. The installation and programming of the ASD shall be completed by a factory-trained installer.

#### **1.5.5 Training**

The manufacturer and their representatives shall make available adequate accreditation training to all personnel involved in the supply, installation, commissioning, operation and maintenance of the ASD system.

#### **1.6 Documentation**

The following documentation shall be supplied:

1. Product data and site drawings shall be submitted and shall include pipe layout, operational calculations and performance criteria. Tools such as ASPIRE may be used to generate this material.
2. A copy of the manufacturer's installation, operation and maintenance manuals shall be supplied upon completion of the installation.
3. System commissioning data shall be supplied (in a format recommended by the manufacturer and per the instructions provided by the manufacturer) within 30 days of completion of the installation.

### **2 System Description**

#### **2.1 ASD System Features**

The ASD system shall:

1. Consist of a highly sensitive, short wavelength LASER-based, particle imaging and light scattering smoke detector, aspirator, and filter.
2. Be modular, with each detector having a display with indicator LEDs and a reset control button and/or optionally with a LCD Display showing detector status including fault categories and smoke alarm and level per sector.
3. Consist of an air sampling pipe network to transport air to the detection system, supported by calculations from a computer-based design modelling tool.
4. Be tested and approved to cover up to 1,000 sq. m. (10,760 sq. ft.) for the single pipe VEP, or up to 2,000 sq. m. (21,520 sq. ft.) for four pipe VEP.
5. Be approved to provide Very Early Warning Fire Detection (VEWFD) / Class A, Early Warning Fire Detection (EWFD) / Class B and Standard Fire Detection (SFD) / Class C.
6. Provide four output levels corresponding to Alert, Action, Fire 1 and Fire 2. These levels shall be programmable and able to be set at sensitivities ranging from 0.005-20% obs/m (0.0016–6.25% obs/ft) with a resolution of 0.0002% obs/m (0.00006%obs/ft).
7. Report any fault on the detector by using configurable fault relay outputs, via a peer-to-peer network or by communications to a monitoring software tool running on a PC or hand-held device such as a tablet or smart phone.
8. Be self-monitoring for filter contamination.
9. Incorporate a flow sensor in each pipe inlet and provide staged airflow faults against flow fault thresholds that may be determined and set for each pipe individually.

#### **2.2 Detection Technology**

### 2.2.1 Light Source

The Detection Chamber shall employ a highly sensitive, short wavelength LASER light source.

### 2.2.2 Detection Method

The detection sensing method shall use both a two-dimensional image sensing array and at least five (5) photodiodes spaced inside the chamber to detect various scattering angles.

The output data from the sensing method shall include particle size and mass scattering measures, a particle counting method shall be employed for the purposes of:

1. Minimizing the effect of large dust particles on the true smoke obscuration.
2. Monitoring contamination of the filter (dust & dirt, etc.) to automatically notify the user when maintenance is required.

### 2.2.3 Absolute Calibration

The detection chamber shall be factory calibrated and shall not use adaptive algorithms or drift compensation techniques to adjust the sensitivity or detector output from that established during commissioning.

## 3 Products

### 3.1 Manufacturer

Air Sampling Smoke Detection System: Acceptable Manufacturer.

Xtralis, 4 North Drive, 236 – 262 East Boundary Road, East Bentleigh VIC 3165, Australia.

### 3.2 Manufactured Units(s)

The VESDA-E VEP ASD system can be supplied in the following configurations:

Part Number	Description
VEP-A00-1P	VESDA-E VEP with LEDs, 1 pipe, coverage area 1,000 sq. m. (10,760 sq. ft.)
VEP-A00-P	VESDA-E VEP with LEDs, 4 pipes, coverage area 2,000 sq. m. (21,520 sq. ft.)

### 3.3 Detector Features

The detector shall incorporate the following features:

1. The Detector, Filter, Aspirator and Relay Outputs shall be housed in a plastic enclosure and shall be arranged in such a way that air is drawn from the fire risk area by an aspirator and a sample passed through a sample filter and detection chamber.
1. The Detector shall employ a short wavelength LASER light source and incorporate particle imaging and light scattering using a two-dimensional image sensing array and scatter pattern measurement using photodiodes.
2. The detector shall have an obscuration sensitivity range of 0.005-20% obs/m (0.0016–6.25% obs/ft) with a resolution of 0.0002%obs/m (0.00006%obs/ft).
3. The Detector shall have four independent field programmable smoke alarm thresholds across its sensitivity range with a configurable time delays for each threshold between 0-60 seconds.
4. The detector shall employ modular construction allowing field replacement of the filter, chamber and aspirator.
5. The detector shall allow future hardware expansion via stackable modules placed either on top or below the detector.

6. The Detector shall also incorporate facilities to transmit the following fault categories:
  - Detector
  - Air flow
  - Filter
  - System
  - Zone
  - Network
  - Power
  - Chamber
  - Module
7. The detector shall support the generation and transmission of urgent and minor faults. Minor faults shall be considered as servicing or maintenance signals. Urgent faults indicate the unit may not be able to detect smoke.
8. The single and four pipe VEP shall include one and four sampling pipe inlets respectively, and must contain a flow sensor for each pipe inlet. Both Minor and Urgent flow faults can be reported
9. The flow sensors in each pipe shall use ultrasonic flow sensing technology.
10. The filter shall be a disposable filter cartridge and shall be capable of filtering particles in excess of 20 microns from the air sample.
11. A second filter shall be ultrafine, removing more than 99% of contaminant particles of 0.3microns or larger, to provide a clean air barrier around the detector's optics to prevent contamination and increased service life.
12. The aspirator shall be a purpose-designed impeller air pump. With applicable transport time as per the local codes:
  - The single pipe VEP shall allow a linear pipe length of up to 100m (328ft) and branched pipe networks with a total length of up to 130m (427ft).
  - The four pipe VEP shall allow a linear pipe length of up to 280m (919ft) and branched pipe networks with a total length of up to 560m (1,837ft).
13. The Assembly must contain seven (7) relays for alarm and fault conditions. The relays shall be software programmable to the required functions. The relays must be rated 2 Amp at 30 VDC. Remote relays shall be offered as an option and either configured to replicate those on the detector or programmed differently.
14. The detector shall have built-in event and smoke logging. It shall store smoke levels, alarm conditions, operator actions and faults. The date and time of each event shall be recorded. Each detector shall allow storage of up to 20,000 events and does not require the presence of a display in order to do so.
15. The detector shall incorporate a galvanically isolated General Purpose Input (GPI) which activates in the event of an applied voltage of 5 to 50VDC and can be assigned by configuration to activate one of several functions (Reset, Disable, Reset/Disable, Stand-by, Mains OK, Day/Night).
16. The detector shall incorporate a monitored voltage-free input, to be used with isolated relay contacts, which is supervised using a 10k Ohm terminating resistor.

### **3.4 Displays**

Both single and four pipe VEP detectors shall provide an LED user interface with a button to support ACKNOWLEDGE, RESET and DISABLE commands; four LEDs to indicate Alert, Action, Fire 1 and Fire2 alarm events; one trouble LED; one disable / standby LED; and power On / Off indication. All LEDs shall have appropriate symbols without any text.

The VEP detector shall optionally have a display module located in a remote mounting box or a 19 inch remote rack.

### **3.5 Monitoring**

#### **AIR SAMPLING SMOKE DETECTION**

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The system shall have available software to monitor all devices connected to a system. Such software shall be provided to run on:

1. PC-based, Android-based or iOS-based hardware.
1. A dedicated monitoring device mounted remotely from any detector.

### **3.6 Configuration and Programming**

Configuration and programming may be performed using a Windows® application such as VSC running on a PC via a direct connection to a detector or through IP (Ethernet/WiFi) networks.

Configuration and programming tool shall support the following features at a minimum:

1. Programming of any device on the VESDAnet system.
2. Viewing of the status of any device in the system.
3. Adjustment of the alarm thresholds per sector of a nominated detector.
4. Setting of Day/Night, weekend and holiday sensitivity threshold settings per sector.
5. Initiation of AutoLearn™, to automatically configure the detector's smoke and flow threshold settings to suit the environment.
6. Multi-level password control.
7. Programmable latching or non-latching relay operation.
8. Programmable energized or de-energized relays.
9. Programmable high and low flow settings for airflow supervision.
10. Programmable aspirator speed control for the four pipe VEP.
11. Programmable maintenance intervals.
12. Facilities for referencing with time dilution compensation.
13. Testing of relays assigned to a specific zone to aid commissioning.

### **3.7 Security**

The following security measures shall be provided:

1. Connectivity via wireless access shall support WPA2 encryption with an encryption key.
2. Access to a detector via Ethernet or WiFi shall be protected using a detector password specific to the detector and in addition to the WiFi encryption key.
3. All software connecting to a detector or peripheral shall support an authentication protocol to verify that it has been supplied by the manufacturer of the system.

### **3.8 Upgrading**

There shall be provision for field upgrading the firmware in the system using a USB memory key connected directly to the detector, avoiding the need for a separate PC for this function.

## **4 Application**

### **4.1 Detection Alarm Levels**

The system shall have four (4) independently programmable alarm thresholds. The four alarm levels may be used as follows:

1. Alarm Level 1 (Alert) - Activate a visual and audible alarm in the fire risk area.
2. Alarm Level 2 (Action) - Activate the electrical/electronic equipment shutdown relay and activate visual and audible alarms in the Security Office or other appropriate location.
3. Alarm Level 3 (Fire 1) - Initiate an alarm condition in the Fire Alarm Control Panel to call the Fire

Brigade and activate all warning systems.

4. Alarm Level 4 (Fire 2) - Activate a suppression system and/or other suitable countermeasures.

#### 4.2 Initial Detection Alarm Settings

Initial settings for the alarm levels shall be determined by the requirements of the protected environment. However, the setting for Fire 1 (Alarm Level 3) shall always appear as 100% on the bar graph scale. Default settings of the unit shall be:

1. Alarm Level 1 (Alert) 0.08% obs/m (0.025% obs/ft)
2. Alarm Level 2 (Action) 0.14% obs/m (0.0448% obs/ft)
3. Alarm Level 3 (Fire 1) 0.20% obs/m (0.0625% obs/ft)
4. Alarm Level 4 (Fire 2) 2.0% obs/m (0.625% obs/ft)

#### 4.3 Initial (Factory Default) Settings for Alarm/Fault Delays

1. Alarm Level 1 (Alert) 10 seconds
2. Alarm Level 2 (Action) 10 seconds
3. Alarm Level 3 (Fire 1) 10 seconds
4. Alarm Level 4 (Fire 2) 10 seconds
5. Air Flow Fault 5 seconds

#### 4.4 Faults

The Detector Fault relay shall be connected to the appropriate alarm zone on the Fire Suppression Control Panel (FSCP) in such a way that a Detector Fault would register a fault condition on the FSCP. The Minor Fault and Isolate relays shall also be connected to the appropriate control system.

(Check local Codes, Standards or Regulations to determine whether compliance with this set up is required).

#### 4.5 Power Supply and Batteries

The system shall be powered from a regulated supply of nominally 24V DC. The battery charger and battery shall comply with the relevant Codes, Standards or Regulations. Typically 24 hours standby battery backup is required followed by 5 minutes in an alarm condition.

Local Power Supply Standards that may apply:

1. UL 1481 Listed - provided the power supply and standby batteries have been appropriately sized / rated to accommodate the system's power requirements.

#### 4.6 Sampling Pipe Design

##### 4.6.1 Sampling Pipe

The sampling pipe shall comply with the following requirements:

1. The sampling pipe shall be smooth bore. Normally, pipe with an outside diameter (OD) of 25mm or 1.05" and internal diameter (ID) of 21mm or ¾" should be used. It should be marked along its length with "Xtralis Aspirating Smoke Detection Pipe", while for American pipes, it should be marked "VESDA Smoke Detector Sampling Tube".
2. The pipe material should be suitable for the environment in which it is installed, or should be the material as required by the specifying body. For example, in the US, VESDA pipe material shall be UL 1887 Plenum rated CPVC).
3. All joints in the sampling pipe must be air tight and made by using solvent cement, except at entry to the detector.

4. The pipe shall be identified as Air Sampling/Aspirating Smoke Detector Pipe (or similar wording) along its entire length at regular intervals not exceeding the manufacturer's recommendation or that of local codes and standards.
5. All piping should be supported at centers of the lesser of 1.5m (5ft) apart or that specified by local codes or standards.
6. The end of each trunk or branch pipe shall be fitted with an end-cap and made air-tight by using solvent cement. Use of a hole in the end-cap will be dependent on the network design (see ASPIRE calculations).

#### **4.6.2 Sampling Holes**

The sampling holes shall comply with the following requirements:

1. Sampling holes shall not be separated by more than the maximum distance allowed for conventional point detectors as specified in the local codes and standards. Intervals may vary according to calculations. For AS1670.1-2004 the maximum allowable distance is 10.2m. For FIA the maximum allowable distance is 10.6m. For NFPA the maximum allowable distance is 30ft.
2. Each sampling hole shall be identified in accordance with Codes or Standards.
3. Consideration shall be given to the manufacturer's recommendations and standards in relation to the number of sampling holes and the distance of the sampling holes from the ceiling or roof structure and forced ventilation systems.
4. Sample point size and indeed the entire pipe design and installation design shall be supported by ASPIRE calculations.

### **5 Execution**

#### **5.1 System Installation**

The contractor shall install the entire detection system in accordance with the national and local codes and manufacturer's System Design Manual.

##### **5.1.1 ASD Detector Mounting**

1. The detector shall be capable of vertical mounting with sample air inlet port(s) directed up toward the ceiling (normal mounting) or down towards the floor (inverted mounting).
2. The detector shall be capable of mounting directly to a wall using screw fasteners or by using a stainless steel mounting bracket.
3. Where a mounting bracket is used, it shall be marked or engraved with the correct locations of inlet port sample pipe(s) and cutting guide and electrical conduit locations.

##### **5.1.2 The Capillary Sampling Network**

The capillary sampling network shall comply with the following requirements:

1. Where false ceilings are installed, the sampling pipe shall be installed above the ceiling, and Capillary Sampling Points shall be installed on the ceiling and connected by means of a capillary tube.
2. The typical internal diameter of the capillary tube shall be 5mm or 3/8", the maximum length of the capillary tube shall be 8m (26 ft) unless otherwise specified in consultation with the manufacturer.
3. The Capillary tube shall terminate at a Ceiling Sampling Point specifically designed and approved by the manufacturer. The performance characteristics of the Sampling Points shall be taken into account during the system design.

##### **5.1.3 Air Sampling Pipe Network Calculations**

Air Sampling Pipe Network Calculations shall be provided by Air Sampling Pipe Network modelling program such as ASPIRE. Pipe network calculations shall be supplied with the proposed pipe layout design to indicate the following performance criteria.

#### 5.1.3.1 Transport Time

Wherever possible the transport time (i.e. the time taken by smoke sampled to reach the detector) for the least favorable sampling point shall be less than 60 seconds for open hole sampling and less than 90 seconds for capillary tubes. Longer transport times may be tolerated where long pipe runs are required and local codes and standards permit.

Local codes and standards may also apply. For example:

- |    |         |              |             |
|----|---------|--------------|-------------|
| 4. | NFPA 72 | The Americas | 120 Seconds |
| 5. | NFPA 76 | The Americas | 60 Second   |

#### 5.1.3.2 Balance %

1. The balance is the ratio of lowest sampling hole flow rate to the highest, expressed as a percentage. The sampling hole balance for the pipe shall not be less than 70% as indicated by ASPIRE.
2. Tools such as ASPIRE calculate the balance for a protected area as part of the outputs for modelled pipe sampling network.

### 5.2 Testing and Acceptance

#### 5.2.1 Final Tests

The contractor shall:

1. Introduce smoke into the detector assembly to provide a basic Go / No-Go functional test.
2. Verify that the transport time from the farthest sampling hole does not exceed the local code requirements using a smoke signal rise displayed in VSC / VSM or the LCD display.
3. Activate the appropriate Fire Alarm zones and advise all concerned that the system is fully operational. Fill out the logbook and commissioning report accordingly.
4. Repeat the final test until the alarm time and activation is not satisfactory.

### I. WARRANTY

All components furnished and installed under this contract shall be warranted against defects in design, materials and workmanship for the full warranty period which is standard with the manufacturer, but in no case less than one (1) year from the date of system acceptance.

**5D: FIRE SUPPRESSION AND VESDA CUTSHEETS**



# OCFA Clean Agent Fire Suppression System

Fire Protection Cut Sheets



[www.p2sinc.com](http://www.p2sinc.com)

November 2021

## Features

- 100 addresses available on this analog addressable system
- Additional system capacity achieved via multi-point SLC modules
- 99 software zones
- NFPA 72 Compliant Smoke Sensitivity Test Built-In
- System Operates as Class A or Class B for SLC, P-Link and NACs
- 5 Amp Power Supply, Expandable to 310 amps
- 2 NACS, Regulated, Rated at 3 Amps each, expandable to 188
- 2 Input/Output (I/O) Circuits for system flexibility rated at 1 Amp each, ideal for manual release and abort
- Strobe Synchronization and System Wide Sync for Gentex®, AMSECO®, Cooper Wheelock® and System Sensor® strobes
- Dedicated Alarm, Supervisory and Trouble Relays
- 4,000 Event History Buffer
- Optional two line DACT with UD-1000 that can report General, Zone or Point Information
- Built in IP Communicator
- Ethernet Port for Programming and Network Connectivity
- E-Mail System Status, Reports and Event Information
- Product includes 5 year warranty



NYC Fire Dept.  
Certificate of Approval  
6256



7165-0328:0509 S735

## Description

The ARC-100 is an analog/addressable releasing fire alarm system with a total system capacity of 100 addresses. Additional capacity on the system is achieved using multi-point SLC modules. The control panel utilizes the exclusive Potter protocol that includes a complete line of sensors and modules. Each SLC may be comprised of any combination of smoke sensor, heat detectors or modules and allows for a total of 50 ohms of impedance and may use any wire compliant with the National Electrical Code (NEC).

The ARC-100 has a 5 Amp power supply with two Notification Appliance Circuits (NACs) and two Input/Output (I/O) circuits. The NACs are rated at 3 Amps each and the I/Os are rated at 1 Amp each. Each output is regulated and power limited. In addition, each output is uniquely programmable and may be configured for steady signal, strobe synchronization, constant power, door holder power, or releasing. The strobe synchronization includes Gentex, AMSECO, System Sensor and Cooper/Wheelock and with the exclusive Quadrasync each output may have a unique brand and all strobes will flash together. The I/Os are designed for inputs such as manual release stations and abort switches that will not require polling and react nearly instantaneously.

The ARC-100 is listed for releasing of fire suppression systems. The software allows cross zones, counting zones, and timers for suppression. The system is capable of multiple release outputs across multiple hazards. In addition, the PSN-1000 may be used to extend releasing capability. The NACs may be expanded using the PSN-1000 series intelligent power supplies. Each PSN-1000 adds another 10 Amps of power, 2 additional input circuits and the ARC-100 will support up to 31 power supplies. The system will synchronize the strobes system wide. In addition, the PSN-1000E has space to allow the installation of up to six loop expansion cards. The cards mount on a stacker bracket that allows access to all SLC circuit connections.

## Technical Specifications

Dimensions	16"W x 17"H x 3 7/8"D
AC Mains	3.0 Amps @ 120 VAC 50/60 HZ 2.0 Amps @ 240 VAC 50/60 HZ
Enclosure	16 gauge cold rolled steel with removable locked door with Lexan viewing window
Battery	Standby Current-130 mA Alarm Current-200 mA <ul style="list-style-type: none"> <li>• 5 Amps power for NACs, I/O, and P-Link</li> <li>• 3 Amps per NAC, regulated</li> <li>• 1 Amp per I/O circuit, regulated</li> <li>• Battery Charger range 8-55 Ah</li> <li>• Battery Charger voltage 27.3 VDC</li> <li>• P-Link maximum current of 1 Amp</li> </ul>
Temperature and Humidity Range	32° to 120° (0°C to 49°C) with a maximum humidity of 93% non-condensing.

### SLC Loop Accessories

The control panel may be connected with up to 100 addressable devices or modules in any combination. The SLC is not restricted by any special wire requirements and may be wired with any wire that complies with the NEC.

### SLC Loop Devices

Device	Description
PAD100-PD	Analog Photo Electric Smoke Detector is a smoke detector with a listed obscuration of 1.02 to 3.83 percent per foot.
PAD100-PHD	Combination Analog Photo Electric Smoke/Heat Detector – a smoke detector with a listed obscuration of 1.02 to 3.83 percent obscuration and a fixed temperature 135° Fahrenheit heat detector.
PAD100-HD	Analog Fixed (135d-185dF) or Rate-of-Rise Heat Detector (software selectable)
PAD100-DUCTR	Addressable Duct Smoke Detector with Form C Relay. Addressable Duct Smoke Detector with Form C relay rated at 10a @ 250/120VAC or 8amps at 30VDC.
PAD100-DUCT	Addressable Duct Smoke Detector.
PAD100-6B	6" round base that is mounted to an electrical box and wired for connection of one of the above sensors.
PAD100-4B	4" round base that may be mounted to an electrical box and wired for connection to the above sensors.
PAD100-IB	Isolator base that interrupts a short in a SLC and prevents the short from affecting protected devices on the loop.
PAD100-RB	Addressable Relay Base that contains one relay controlled by the SLC. Relay is rated at rated at 2 amps at 30 VDC or 0.5A at 125VAC.
PAD100-SB	Addressable Sounder Base that contains an addressable sounder module that may be configured for local, group and all call.
PAD100-CD	Addressable CO gas detector.
PAD100-DD	Addressable photo electric smoke detector for use in DUCT/DUCTR enclosure.

### Modules

Device	Description
PAD100-MIM	Micro Input Module provides a small foot print contact module for mounting inside an enclosure.
PAD100-PSSA	Single Action Addressable Pull Station.
PAD100-PSDA	Dual Action Addressable Pull Station.
PAD100-SIM	Single Input Module is a standard contact module with an LED that mounts into a 4" square electrical box.
PAD100-DIM	Dual Input Module is a device that can monitor two distinct inputs with a single device or in a Class A mode.
PAD100-TRTI	Two Relay Two Input module provides two form C relays that are individually controlled by the control panel. Each relay is rated for 2 amps at 30VDC or 0.5 amps at 125VAC. Also provides two contact inputs.
PAD100-NAC	Notification Appliance Circuit module is an addressable remote appliance circuit controlled by the panel.
PAD100-ZM	Zone Module is used to connect conventional 2-wire smoke detectors to the system.
PAD100-IM	Isolater Module interrupts a short on the SLC and prevents the short from affecting protected devices on the loop.
PAD100-RM	Relay Module that provides one form C relay controlled by the control panel. Relay is rated for 2 amps at 30VDC or 0.5 amps at 125VAC.
PAD100-LED	Module provides a single addressable LED that is controlled by the control panel.
PAD100-SM	Speaker Module provides switching for two audio channels.
PAD100-LEDK	Addressable LED and key switch that mounts in a single gang box.
PAD100-DRTS	DUCTR Remote Test Switch that mounts in a single gang box and optionally supervised. For use with the PAD100-DUCTR only.
PAD100-OROI	One Relay One Input Module provides one form C relay and one input. The relay is rated at 2 amps at 30VDC or 0.5 amps at 125VAC.

### SLC Features

The Potter protocol is a digital protocol with a proven design for reliability and noise immunity. The system does not require special cable or conductors for connection of the Signaling Line Circuit as long as the cable is compliant with NFPA 70 and NFPA 72. The system allows for Class A or Class B installations as well as “T-Taps”, with a max wiring distance of 10,000 Ft.

### Sensor Features

The sensors through the fire alarm control panel provide a real time status as to the condition of the system. The smoke detector sensitivity, heat detector temperature level and drift compensation are all programmable options. The system also allows for a day/night mode where the panel automatically adjusts the sensitivity depending on the time of day. To assist in the reduction of false alarms, the smoke detectors also have a maintenance warning that sends a trouble signal when a detector is dirty to the point that it can no longer maintain the programmed sensitivity.

### User Interface

The fire alarm control panel has a 2 x 16 LCD display to provide information to the system status. The keypad has navigation keys to allow manipulation of the Menu on board the panel. The panel is shipped standard with the following LEDs:

- AC Power - Green
- Alarm - Red
- Earth Fault - Amber
- Supervisory - Amber
- Silenced - Amber
- Trouble - Amber
- Pre-Release - Amber
- Release - Red

The common buttons include a Silence, Reset, Acknowledge, and Drill. All of the buttons are accessible once the locked door is opened.

### P-Link

The AFC-100 has a proprietary communication protocol that communicates through a RS-485 connection to field devices. Up to 32 devices may be connected to a single P-Link connection. The P-Link includes the communication terminals and regulated 24 VDC connection for the field devices. The field devices may be any of the following:

**PAD100-SLCE**-Analog/Addressable loop expansion module

**SLCE-127** -Nohmi addressable loop expansion module for retrofit applications.

**RA-6075R** – 2 x 16 LCD annunciator with a key pad in a locked metal enclosure.

**RA-6500R(F)** – 4 x 40 LCD annunciator with a key pad in a locked metal enclosure. Flush mount version available.

**LED-16(F)** – 16 LED annunciator with common indicators in a locked metal enclosure. Flush mount version available.

**PSN-1000(E)** – 10 amp, remote intelligent power supply with 6 NACs, 2 I/Os and a P-Link repeater. This panel is listed in conjunction with the AFC-100 as releasing circuits.

**CA-6075** – Class A convertor that converts the SLC, NACs and P-Link connection

**UD-1000** – UL listed, Dual line telephone alarm communicator

**DRV-50** – LED driver expander, used to connect up to 50 LEDs in a graphic display

**FCB-1000** – Fire communication bridge, provides remote mounting of the Ethernet connection

**FIB-1000** – Fiber interface module, used to extend P-Link to multi-mode fiber (2 required)

**RLY-5** – Relay module, provides 5 form C relay contacts rated at 3.0 amps 24VDC/125AC

**SPG-1000** – Serial parallel gateway, allows for the connection to a serial or parallel printer

The **FIB-1000**, **FCB-1000** and the **SPG-1000** may be installed in the stacker bracket or ordered with the optional rack mount enclosure.

**MC-1000** Multi-Connect allows up to sixty-three AFC series panels to share a single reporting technology.

**AE-2** – Two card expansion cabinet

**AE-8** – Eight card expansion cabinet

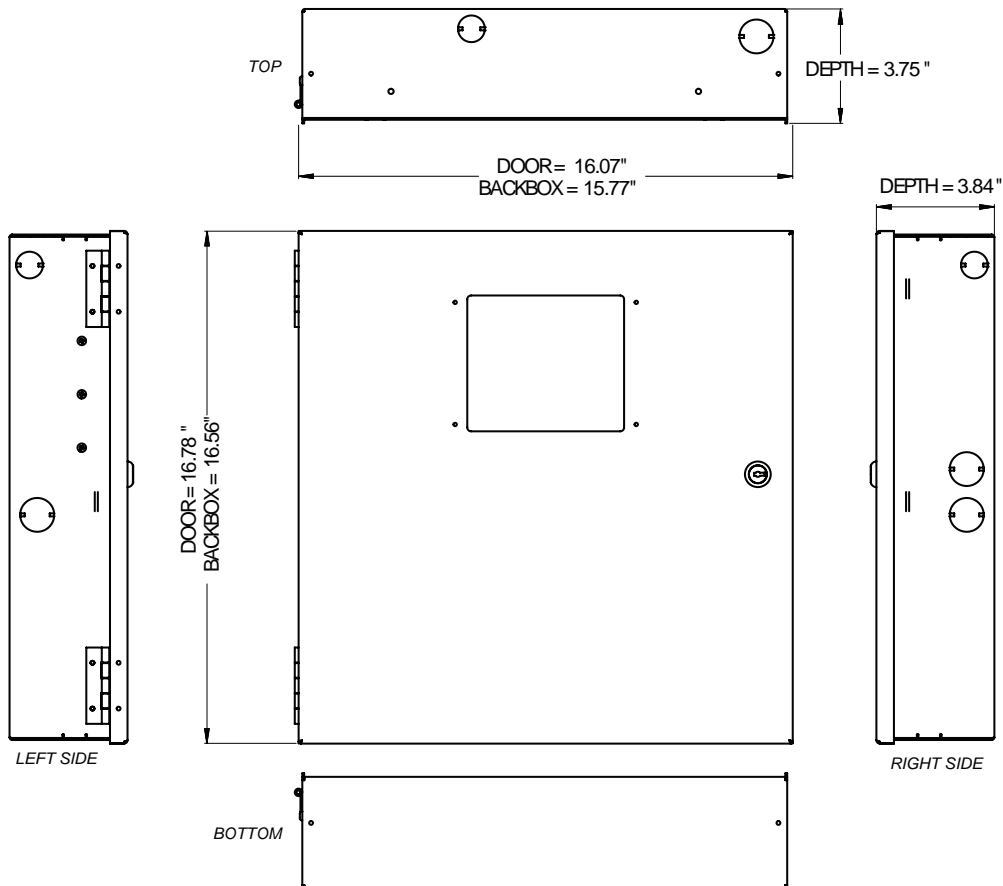
**AE-14** – Fourteen card expansion cabinet

### Ethernet/I.P. Connection

The ARC-100 is shipped standard with an Ethernet connection. This connection is the programming port and may be connected to a building Wide Area Network (WAN) or Local Area Network (LAN). Once connected to the Internet, the panel may be selectively programmed to e-mail alarm conditions, trouble conditions, supervisory conditions, test, Event History and detector status. An e-mail may be sent to the panel and the panel will e-mail the event history, detector status, configuration file or server status to an authorized E-mail account. In addition, reminders may be set to send an e-mail for service, testing or other conditions.

In addition, the Ethernet connection is UL listed as an IP communicator. The IP communicator is listed to report to the UL listed Sur-Gard III IP receiver. The IP communicator replaces the traditional less reliable alarm communicator transmitter that utilized telephone lines. The IP communicator is an active method of connection and communication to the monitoring station.

## Dimensions



DWG #593-1

## Compatible Releasing Devices

**Note:** For releasing applications please order the Potter EOLD (3005012) for circuits connected to a releasing solenoid or actuator.

## Ordering Information

Model	Description	Stock No.
ARC-100	Fire Alarm Releasing Control Panel	3992755

Brand	Description
Skinner	73218BN4UNLVN0C112CZ 73212BN4TNLVN0C322C2
Victaulic	753-E Series
Mini Max	MX123 & MX200 w/ 8876677 & 889323
Viking	11591, 11601, 11602, 13843, & 13844
TLX	PA0036
Stat-X	30E, 60E, 100E, 250E, 500E, 1000E, 1500E, & 2500E

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



# LISTING SERVICE

**LISTING No.** 7165-0328:0509

Page 1 of 2

**CATEGORY:** 7165 -- FIRE ALARM CONTROL UNIT (COMMERCIAL)

**LISTEE:** Potter Electric Signal Co 1609 Park 370 Place, Hazelwood, MO 63042 United States  
Contact: Brad Serangeli (314) 595-6900 Fax (314) 595-6999  
Email: brads@pottersignal.com

**DESIGN:** Models AFC-50, AFC-100 and AFC-1000 fire alarm control units. Automatic, Manual, waterflow and sprinkler supervisory type device and local, auxiliary, remote station (PPU), proprietary (PPU) and central station (PPU) services.

\*Model ARC-100 fire alarm control unit. Automatic, Manual, waterflow and sprinkler supervisory type device and local, auxiliary, releasing, remote station (PPU), proprietary (PPU) and central station (PPU) services.

System components:

PAD100-DIM Dual Input Module  
PAD100-LED Addressable LED Module  
PAD 100-OROI One Relay-One Input Module  
PAD 100-RM Relay Module  
PAD 100-SIM Single Input Module  
PAD 100 TRTI Two Relay-Two Input Module  
PAD 100-ZM Zone Module  
PAD 100-IM Isolator Module  
PAD 100- NAC Notification Appliance Circuit Module  
PAD 100-SM Speaker Module  
PAD 100-MIM Micro Input Module  
PAD 100-LEDK LED Key Switch Module  
PAD 100-DRTS Duct Remote Test Switch  
PAD 100-SLCE127 Point SLC Expander  
MC-1000 Multi-Connect  
PAD 100-DUCTR  
AE-2 Enclosure

Refer to listee's Installation Instruction Manual for details.

**RATING:** 24 VDC

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction.

\*Rev 12-04-17 gt



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

Date Issued: **July 01, 2021**

Listing Expires **June 30, 2022**

Authorized By: **DAVID CASTILLO,, M.E., F.P.E.**

*Fire Engineering Division*

**MARKING:** Listee's name, model designation, rating and UL label.

**APPROVAL:** Listed as fire alarm control units when use with separately listed electrically and functionally compatible initiating and indicating devices. Refer to listee's Installation Instruction Manual for details.

\*Rev 12-04-17 gt



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Date Issued: **July 01, 2021**

*Listing Expires* **June 30, 2022**

Authorized By: **DAVID CASTILLO,, M.E., F.P.E.**  
*Fire Engineering Division*

The VESDA-E VEP series of smoke detectors bring the latest and most advanced detection technology to provide very early warning and the best nuisance alarm rejection to a wide range of applications. Built on the Flair detection technology and years of application experience, VEP detectors achieve consistent performance over their lifetime via absolute calibration. In addition, the VEP delivers a range of revolutionary features that provide user value.



### Flair Detection Technology

Flair is the revolutionary detection chamber that forms the core of the VESDA-E VEP, providing higher stability and increased longevity. Direct imaging of the sampled particles using a CMOS imager combined with multiple photo-diodes allows better detection and fewer nuisance alarms.

### Installation, Commissioning and Operation

VESDA-E VEP is equipped with a powerful aspirator that enables use of a total of 130m (427ft) of sampling pipe in the one pipe model and 560m (1,837ft) of pipe in the four pipe model. Out of box operation is made possible with AutoConfig which allows airflow normalisation and AutoLearn Smoke and Flow to be initiated from within the detector. VEP is fully supported by the ASPIRE and Xtralis VSC software applications which facilitate ease of pipe network design, system commissioning and maintenance.

### VESDAnet™

VESDA devices communicate on VESDAnet which provides a robust bi-directional communication network allowing continued redundant operation even during single point wiring failures. VESDAnet enables primary reporting, centralized configuration, control, maintenance and monitoring.

### Ethernet connectivity

VESDA-E detectors offer connectivity to corporate networks via Ethernet, allowing for devices installed with Xtralis monitoring and configuration software to connect to the detector.

### Backward Compatibility

VESDA-E VEP is compatible with existing VESDA installations. The detector occupies the same mounting footprint, pipe, conduit and electrical connector positioning as VESDA VLP. VEP is also compatible with existing VESDAnet installations allowing monitoring of both VESDA-E and legacy detectors via the latest iVESDA application.

### Features

- Suitable for Class 1 Division 2 applications - Groups A,B,C & D
- One and four pipe models for different applications
- Flair detection technology delivers reliable very early warning in a wide range of environments with minimal nuisance alarms
- Multi stage filtration and optical protection with clean air barriers ensures lifetime detection performance
- Four alarm levels and a wide sensitivity range deliver optimum protection for the widest range of applications
- Intuitive LCD icon display provides instant status information for immediate response
- Flow fault thresholds per port accommodate varying airflow conditions
- Smart on-board filter retains dust count and remaining filter life for predictable maintenance
- Extensive event log (20,000 events) for event analysis and system diagnostics
- AutoLearn™ smoke and flow for reliable and rapid commissioning
- Referencing to accommodate external environmental conditions to minimise nuisance alarms
- Backward compatible with VLP and VESDAnet
- Remote monitoring with iVESDA for system review and proactive maintenance
- Ethernet for connectivity with Xtralis software for configuration, secondary monitoring and maintenance
- USB for PC configuration, and firmware upgrade using a memory

stick

- Two programmable GPIs (1 monitored) for flexible remote control
- Field replaceable sub-assemblies enable faster service and maximum uptime

### Listings / Approvals

- UL
- ULC
- CSFM
- FM
- VdS
- NF-SSI ([www.marque-nf.com](http://www.marque-nf.com))
- VNIPO
- CE
- ActivFire
- CCC
- EN 54-20, ISO 7240-20
- Four Pipe VEP
- EN 54-20, ISO 7240-20
  - Class A (40 holes / Fire 1 = 0.028% obs/m)
  - Class B (80 holes / Fire 1 = 0.027% obs/m)
  - Class C (100 holes / Fire 1 = 0.056% obs/m)

*Classification of any configuration is determined using ASPIRE.*

Regional approvals listings and regulatory compliance vary between product models. Refer to [www.xtralis.com](http://www.xtralis.com) for the latest product approvals matrix.

# VESDA-E VEP

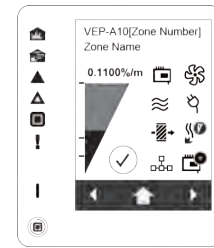
## TECHNICAL SPECIFICATIONS



### Specifications

	One Pipe VEP			Four Pipe VEP	
Supply Voltage	18-30 VDC (24 V Nominal)				
Power Consumption @ 24VDC	VEP-A00-1P	VEP-A00-P		VEP-A10-P	
Aspirator Setting	Fixed	1	5	1	5
Power (Quiescent)	8.8 W	7.0 W	8.8 W	8.2 W	10.0 W
Power (In Alarm)	9.6 W	7.8 W	9.6 W	10.4 W	11.6 W
Dimensions (WHD)	350 mm x 225 mm x 135 mm (13.8 in x 8.9 in x 5.3 in)				
Weight	4.4 kg (9.7 lbs)	4.4 kg (9.7 lbs)		4.5 kg (9.9 lbs)	
Operating Conditions	Ambient: 0°C to 39°C (32°F to 102°F) Sampled Air: -20°C to 60°C (-4°F to 140°F) Tested to: -20°C to 55°C (-4°F to 131°F) UL: -20°C to 50°C (-4°F to 122°F) Humidity: 5% to 95% RH, non-condensing				
Area Coverage	1,000 m <sup>2</sup> (10,760 sq. ft.)	2,000 m <sup>2</sup> (21,520 sq. ft.)			
Min. airflow per pipe	15 l/m				
Pipe Length (Linear)	100 m (328 ft)	280 m (919 ft)			
Pipe Length (Branched)	130 m (427 ft)	560 m (1,837 ft)			
Pipe lengths depending on number of pipes in use	1 Pipe	1 Pipe	2 Pipe	3 Pipe	4 Pipe
	100 m (328 ft)	110 m (361 ft)	100 m (328 ft)	80 m (262 ft)	70 m (230 ft)
StaX	PSU	PSU, Auto Pipe Clean			
No. of holes (A/B/C)	30/40/45	40/80/100			
Computer design tool	ASPIRE				
Pipe	Inlet: External diameter 25 mm or 1.05 in (3/4 in IPS) Exhaust: External diameter 25 mm or 1.05 in (3/4 in IPS) via adaptor				
Relays	7 programmable relays (latching or non-latching states) Contacts rated 2 A @ 30 VDC (Resistive)				
IP rating	IP40				
Cable access	4 x 26 mm (1.02 in) cable entries				
Cable termination	Screw Terminal blocks 0.2–2.5 sq mm (24–14 AWG)				
Dynamic Range	0.000%/m to 32%/m (0.0000%/ft to 10%/ft)				
Sensitivity Range	0.005 to 20% obs/m (0.0016% to 6.25% obs/ft)				
Threshold setting range	Alert: 0.005% to 2.0% obs/m (0.0016% to 0.625% obs/ft) Action: 0.005% to 2.0% obs/m (0.0016% to 0.625% obs/ft) Fire1: 0.010% to 2.0% obs/m (0.0031% to 0.625% obs/ft) Fire2: 0.020% to 20.0% obs/m (0.0063% to 6.25% obs/ft)				
Software features	Event log: Up to 20,000 events Smoke level, user actions, alarms and faults with time and date stamp AutoLearn: Detector learns Alarm Thresholds and Flow Fault thresholds by monitoring the environment.				

### 3.5" Display



LED	Description
	Fire 2
	Fire 1
	Action
	Alert
	Disabled
	Fault
	Power

### Home Page

Icon on Display	Description
	Smoke and Alarm Threshold Levels
	Detector OK
	Detector Fault
	Aspirator Fault
	Airflow Fault
	Power Fault
	Filter Fault
	Smoke Chamber Fault
	VESDAnet Fault
	StaX Module Fault

### Ordering Information

Ordering Code	Description
VEP-A00-1P	VESDA-E VEP with LEDs, 1 pipe, Plastic Enclosure
VEP-A00-P	VESDA-E VEP with LEDs, 4 pipe, Plastic Enclosure
VEP-A10-P	VESDA-E VEP with 3.5" Display, 4 pipe, Plastic Enclosure

### Approvals Compliance

Please refer to the Product Guide for details regarding compliant design, installation and commissioning.

### Spare Parts

VSP-960	VESDA-E Mounting Bracket	VSP-964-03	VESDA-E Smoke Detection Chamber – MK3
VSP-961	VESDA-E Exhaust adaptor US	VSP-965	VESDA-E Sampling Module
VSP-962	VESDA-E Filter	VSP-968	VESDA-E VEP-A00-P/1P Front Cover Plastic (LEDs)
VSP-962-20	VESDA-E Filter – 20 Pieces	VSP-969	VESDA-E VEP-A10-P Front Cover Plastic (3.5" Display)
VSP-963	VESDA-E Aspirator	VKT-850	VESDA-E VEP Demo Kit
VSP-964	VESDA-E Smoke Detection Chamber		

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
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FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



## LISTING SERVICE

**LISTING No.** 7259-1728:0122 Page 1 of 1

**CATEGORY:** 7259 -- SMOKE DETECTOR-AIR SAMPLING TYPE

**LISTEE:** XTRALIS, PTY4 North Drive, Virginia Park, 236-262 East Boundary Road, Bentleigh East, Victoria 3165 Australia  
Contact: Elizabeth Geehman +61 3 9936 7348  
Email: liz.geehman@xtralis.com

**DESIGN:** Models VESDA-E Series VEP-A00, VEP-A10, VEU-A00 and VEU-A10 air sampling type smoke detector. Models are 4-pipe air sampling smoke detectors. They detect four smoke levels and provide Alert, Action, Fire 1 and Fire 2 signals to the fire alarm control panel through relays or remote relay modules. Refer to listee's data sheet for additional detailed product description and operational considerations.

**RATING:** 24 VDC

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction.

**MARKING:** Listee's name, model number, electrical rating, and UL label.

**APPROVAL:** Listed as air sampling type smoke detectors for open areas with air velocities between 0-4000 FPM and air duct application with a maximum velocity of 4000 FPM. Refer to listee's Installation Instruction Manual for details.

05-21-14 gt



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Date Issued: **July 01, 2021**

Listing Expires **June 30, 2022**

Authorized By: **DAVID CASTILLO,, M.E., F.P.E.**  
*Fire Engineering Division*

## Features

- One Class B contact monitoring input
- Small size allows mounting in most electrical boxes
- SLC Class A, Class X & Class B
- 6" Pigtail wiring connections
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control



## Description

The PAD100-MIM is used to monitor the status of an initiating device(s) that contain a normally open set of dry contacts. The module is enclosed in a plastic case to protect against inadvertent shorts and ground faults. The case can be mounted using a single screw. The PAD100-MIM has a status indicator LED to indicate communication and alarm condition. In normal condition, the LED flashes when the device is being polled by the control panel. When the input is activated, the LED will flash at a fast rate.

## Application

The micro input module (PAD100-MIM) is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. Generally the PAD100-MIM is used to monitor pull stations and other devices where the module is installed in an electrical box or enclosure behind the device being monitored.

## Technical Specifications

Operating Voltage	24.0V
Max SLC Standby Current	200μA
Max SLC Alarm Current	200μA
IDC Input Circuit Wiring	Class B
Max Wiring Resistance of IDC	100 Ω
Max Wiring Capacitance of IDC	1μF
EOL Resistor	5.1K Ω
Operating Temperature Range	32 to 120°F (0 to 49°C)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	1.75" (44.5mm)L × 1.36" (34.5mm)W × .43" (11mm)D
Mounting Options	2-1/2" (64mm) deep single-gang box
Shipping Weight	0.3 lbs

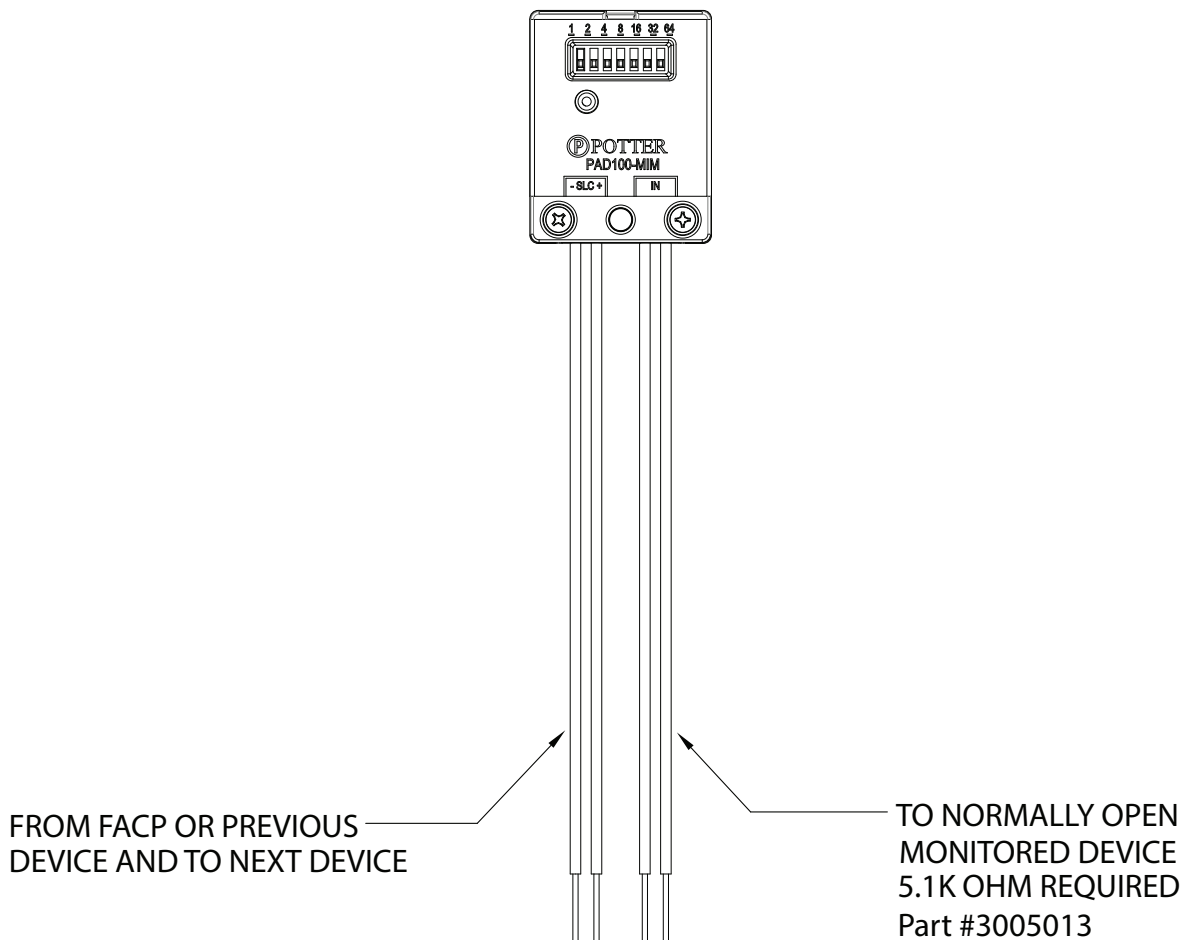
## Setting the Address

Each addressable SLC device must be assigned an address. The address is set using the DIP switch located on the front of the PAD100-MIM. Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the panel or device:

1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

## Wiring Diagram

Fig 1



## Ordering Information

Model	Description	Stock No.
PAD100-MIM	Micro Input Module	3992700

### Features

- Meets requirements of NFPA 72 and 2001
- Colored LEDs indicate system status
- Stainless steel plate mounts to single gang box
- RCDS-1: key removable in both positions
- RCDS-2001: key only removable in enabled position to comply with NFPA 2001
- Compatible with any 24VDC system



### Description

The device consists of a stainless steel faceplate, green LED, amber LED, and a switch assembly. It is designed to mount on a standard single gang electrical enclosure.

### Application

The RCDS-1 complies with the requirements of NFPA 72 (National Fire Alarm and Signaling Code):

The RCDS-2001 complies with the requirements of NFPA 2001 (Standard on Clean Agent Fire Extinguishing Systems):

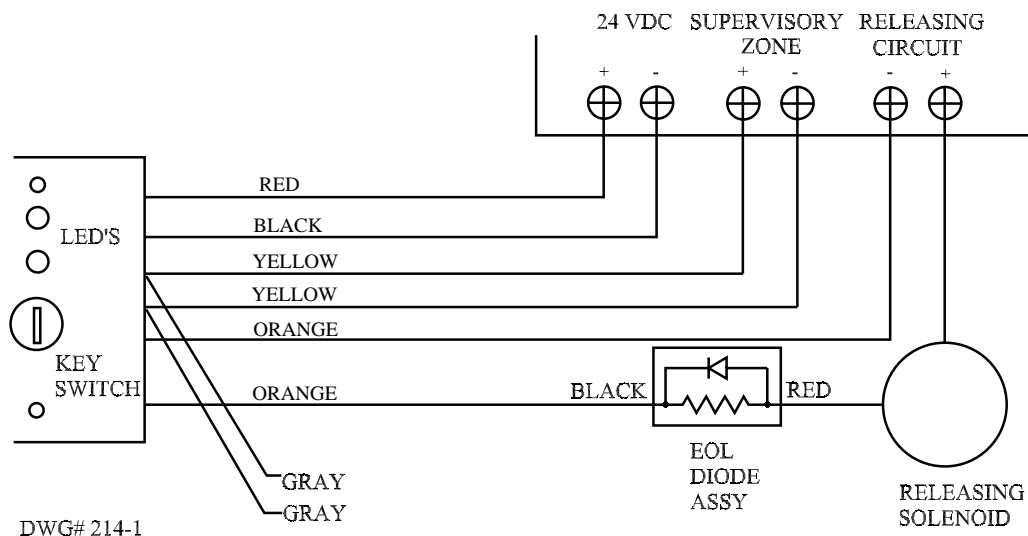
- Specifying a physical switch to disconnect the release circuit in place of a software controlled disconnect.
- Creating a supervisory condition on the associated release panel.

### Technical Specifications

Dimensions	2 3/4" W x 4-1/2" H x 2" D (Approximate) Mounts on single gang or handy box
Contact Rating	1 AMP @ 40 VDC
Power Requirements	24 VDC, 10mA
Environmental Specifications	Indoor use only Temperature range -22°F to 140°F (-30°C to 60°C)

## Installation

1. Connect the red and black leads to the 24 VDC auxiliary power terminals on the release panel. Be certain to observe polarity.
2. Connect the yellow wires to the supervisory zone on the panel.



## Operation

The green LED indicates the RCDS is in the Normal condition and the release circuit is enabled.

The amber LED indicates that the release circuit is disabled.

## Ordering Information

Model	Description	Stock No.
RCDS-1	Releasing Circuit Disable Switch	3001002
RCDS-2001	Releasing Circuit Disable Switch (Clean Agent)	3001005

## NOTICE

The connection for the supervisory circuit has 4 wires: 2 yellow and 2 gray. The 2 yellow wires are for connection to the supervisory circuit. The 2 gray wires are for connection to additional supervisory devices or the EOLR for the supervisory zone.

### Features

- Monitored output module that provides an additional supervised output
- Can be used as either a NAC or Releasing Output
- NAC can be wired Class A or Class B
- Monitors presence of 24 VDC Aux Power
- SLC Class A, Class X & Class B
- Mounts in a standard 4" or double gang box
- Wiring terminals accessible when mounted in box
- All wiring terminals accept 22 to 12 AWG
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control



### Description

The PAD100-NAC module uses one (1) address on an SLC Loop. The module provides a programmable source of power to supervise and control one (1) Class B or Class A Notification Appliance or one (1) Class B Releasing Circuit. The module requires and supervises a 24 VDC auxiliary power connection. The PAD100-NAC includes one red LED to indicate the module's status. In normal condition, the LED flashes when the device is being polled by the control panel.

### Application

The PAD100-NAC is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. The PAD100-NAC is a monitored Notification Appliance Circuit that wires to the SLC loop to provide an additional notification circuit. When used with a Potter addressable releasing panel, the PAD100-NAC can provide an additional releasing circuit.

### Setting the Address

Each addressable SLC device must be assigned an address. The address is set using the DIP switches on the PAD100-NAC module.

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the panel or device:

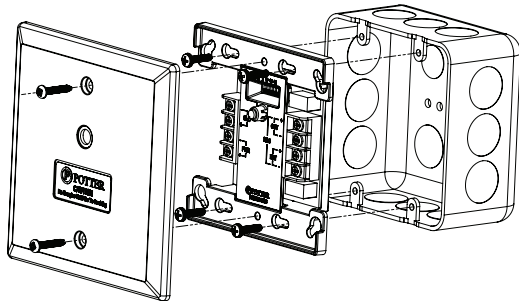
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

### Technical Specifications

Operating Voltage	24.0V
Max SLC Standby Current	200μA
Max SLC Alarm Current	200μA
Aux Power Required	16-33 VDC
Output Ratings	24 VDC, 2A
EOL Resistor	5.1K Ω
EOL Resistor Diode	Stock #3005012 Releasing Applications (Not Included)
Operating Temperature Range	32 to 120°F (0 to 49°C)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	4.17" (106mm)L × 4.17" (106mm)W × 1.14" (29mm)D
Mounting Options	Standard 4" Square or Double Gang Box
Shipping Weight	0.6 lbs

## Installation Using Compatible Electrical Box

Fig 1

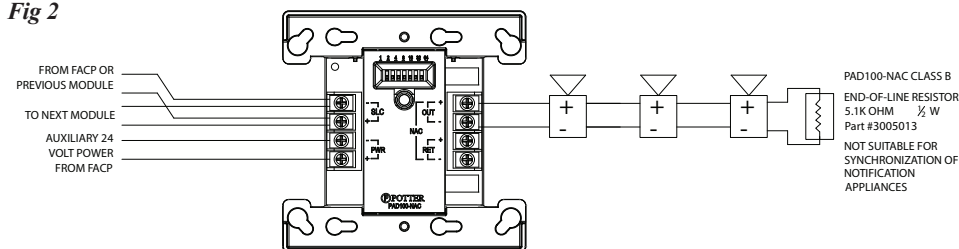


## Wiring Diagrams

### Output Connected to a Notification Appliance Circuit

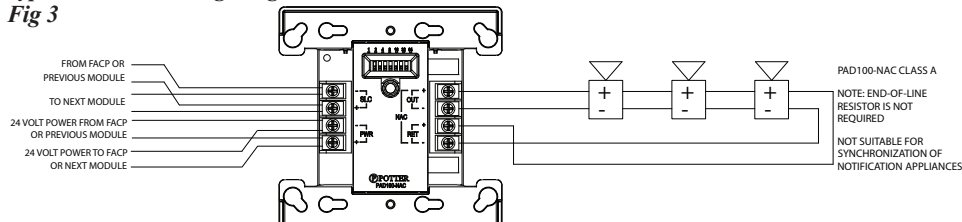
#### Typical Class B Wiring Diagram

Fig 2



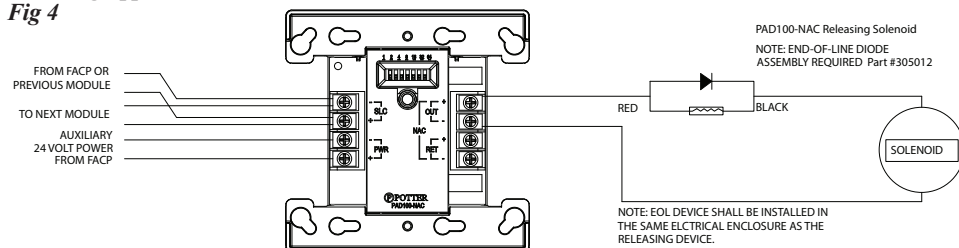
#### Typical Class A Wiring Diagram

Fig 3



### Releasing Application

Fig 4



## NOTICE

It is possible that the internal relay in the PAD100-NAC may be shipped in the non-normal / activated state. To ensure that the internal relay is set to the normal state, connect the module to the SLC loop and reset the control panel before terminating the wiring to the modules output.

## Ordering Information

Model	Description	Stock No.
PAD100-NAC	Notification Appliance Circuit	3992707

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
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FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



# LISTING SERVICE

**LISTING No.** 7300-0328:0514

Page 1 of 1

**CATEGORY:** 7300 -- FIRE ALARM CONTROL UNIT ACCESSORIES/MISC. DEVICES

**LISTEE:** Potter Electric Signal Co1609 Park 370 Place, Hazelwood, MO 63042 United States  
Contact: Brad Serangeli (314) 595-6900 Fax (314) 595-6999  
Email: brads@pottersignal.com

**DESIGN:** Model PAD100-DIM Dual Input Module  
Model PAD100-LED Addressable LED Module  
Model PAD100-OROI One Relay-One Input Module  
Model PAD100-RM Relay Module  
Model PAD100-SIM Single Input Module  
Model PAD100-TRTI Two Relay-Two Input Module  
Model PAD100-ZM Zone Module  
Model PAD100-IM Isolator Module  
Model PAD100-NAC Notification Appliance Circuit Module  
Model PAD100-SM Speaker Module  
Model PAD100-MIM Micro Input Module  
Model PAD1---LEDK Key Switch Module  
Model PAD100-DRTS Duct Remote Test Switch  
Model SLCE127 Point SLC Expander  
Model MC-1000 Multi Connect  
Model PAD100-DUCTR  
Model AE-2 Enclosure

Refer to listee's data sheet for detailed product description and operational considerations.

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction.

**MARKING:** Listee's name, model designation, rating and UL label.

**APPROVAL:** Listed as fire alarm control unit accessories for use with listee's separately listed fire alarm control panels. Refer to listee's Installation Instruction Manual for details.

09-11-18 gt



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Date Issued: **July 01, 2021**

Listing Expires **June 30, 2022**

Authorized By: **DAVID CASTILLO,, M.E., F.P.E.**  
*Fire Engineering Division*

# NBG-12LR, NBG-12LRA, and NBG-12LRAA

## Dual-Action Agent Release Stations



Releasing Panels

### General

The NBG-12LR, the NBG-12LRA and the NBG-12LRAA are Agent Release Stations designed for use with NOTIFIER Fire Alarm Control Panels with releasing capabilities and RP Series Releasing Systems.

### Features

- Non-coded, dual-action operation.
- Made with durable polycarbonate.
- Optional surface backbox.

#### NBG-12LRA/ NBG-12LRRA INCLUDES:

- Abort switch.
- Power-on indication.
- Released indication.
- Manual release (dual-action).

#### NBG-12LR INCLUDES:

- Dual-action release only.

### Applications

The NBG-12LRA and NBG-12LR are ideal for areas such as clean rooms and computer rooms where a chemical agent is used to extinguish a fire.

### Product Line Information

**NBG-12LRA:** Agent release station with abort switch, Release LED, Normal LED.

**NBG-12LRRA:** Agent release station with abort switch, Release LED, and Normal LED. For ULC applications.

**NBG-12LR:** Dual-action agent release station.

**SBA-10:** Surface backbox for NBG-12LRA, metal. Dimensions 4.5" (11.43 cm) W x 8.188" (20.8 cm) L x 1.375" (3.49 cm) D.

**SB-10:** Surface backbox for NBG-12LR, metal. Dimensions 4.125" (10.48 cm) W x 5.5" (13.97 cm) L x 1.375" (3.49 cm) D.

**SB-I/O:** Surface backbox for NBG-12LR, plastic.

**BG12TR:** Optional trim ring for semi-flush mounting.

### Agency Listings and Approvals

In some cases, certain modules may not be listed by certain approval agencies, or listing may be in progress. *Consult factory for latest listing status.*

**UL/ULC Listed:** S692

**MEA Listed:** 67-20-E

**FM Approved**

**CSFM:** 7150-0028:0199

**FDNY:** COA#6114 (NFS2-3030), COA#6121 (NFS2-640)

**U.S. Coast Guard, Lloyd's Register, American Bureau of Shipping (ABS):** For information on marine applications, see DN-60688.



Dual Action NBG-12LR



Dual Action NBG-12LR shown activated

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This document is not intended to be used for installation purposes.  
We try to keep our product information up-to-date and accurate.  
We cannot cover all specific applications or anticipate all requirements.  
All specifications are subject to change without notice.



Country of Origin: USA

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.  
[www.notifier.com](http://www.notifier.com)

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
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FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



# LISTING SERVICE

**LISTING No.** 7150-0028:0199

Page 1 of 1

**CATEGORY:** 7150 -- FIRE ALARM PULL BOXES

**LISTEE:** NotifierOne Fire-Lite Place, Northford, CT 06472-1653  
Contact: Lisa Brant (203) 484-6105 Fax (203) 484-7309  
Email: lisa.brant@honeywell.com

**DESIGN:** Models NBG-12, NBG-12S, NBG-12LR, NBG-12LRA, NBG-12LAO, NBG-12LAOB, NBG-12-LO, NBG-12LOB, NBG-12W, NBG-12LW, NBG-12NC, NBG-12WP, NBG-12LWP, NBG-12L, NBG-12LX, NBG-12LA, NBG-12PS, NBG-12LSP, NBG-12LPS, NBG-12LPSP, NBG-12SP, NOT-BG12LX, NBG-12LXSP, NBG-12LXBL and NBG-12LXP fire alarm pull boxes. All units except Model NBG-12S are dual action pull stations. Models NBG-12LR and NBG-12LRA are intended for agent releasing device. Refer to listee's data sheet for detailed product description and operational considerations.

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.

**MARKING:** Listee's name, model number, rating, and UL label.

**APPROVAL:** Listed as fire alarm pull boxes for use with separately listed compatible fire alarm control units. Models NBG-12WP, NBG-12LW, NBG-12W, NBG-12LWP, NBG-12LAO, NBG-12LO, NBG-12LAOB and NBG-12LOB are intended for outdoor use when installed with Models WBB, SB-I/O, or WP-10 back box. Refer to listee's Installation Instruction Manual for details.

These manual pull boxes meet the requirements of UL Standard 38, 1999 Edition and California amendments which the controls and operating mechanisms required to be operable at no more than 5lbs. force with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

\*Corrected 10-08-12 bh



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Date Issued: **July 01, 2021**

Listing Expires **June 30, 2022**

Authorized By: **DAVID CASTILLO, M.E., F.P.E.**  
*Fire Engineering Division*



# Indoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications

*System Sensor L-Series audible visible notification products are rich with features guaranteed to cut installation times and maximize profits with lower current draw and modern aesthetics.*

## Features

- Updated Modern Aesthetics
- Small profile devices for Horns and Horn Strobes
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and two volume selections
- Mounting plate for all standard and all compact wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert and SpectrAlert Advance devices
- Compatible with MDL3 sync module
- Strobes and Horn Strobes listed for wall mounting only
- Horns listed for wall or ceiling use

## Agency Listings



**The System Sensor L-Series** offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

## L-Series Specifications

### Architect/Engineer Specifications

#### General

L-Series standard horns, strobes, and horn strobes shall mount to a standard 2 x 4 x 1<sup>7</sup>/<sub>8</sub>-inch back box, 4 x 4 x 1<sup>1</sup>/<sub>2</sub>-inch back box, 4-inch octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 x 4 x 1<sup>7</sup>/<sub>8</sub>-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products for all standard models and a separate universal mounting plate shall be used for mounting wall compact models. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, and 185.

#### Strobe

The strobe shall be a System Sensor L-Series Model \_\_\_\_\_ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

#### Horn Strobe Combination

The horn strobe shall be a System Sensor L-Series Model \_\_\_\_\_ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The horn on horn strobe models shall operate on a coded or non-coded power supply.

#### Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize Strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4<sup>11</sup>/<sub>16</sub> x 4<sup>11</sup>/<sub>16</sub> x 2<sup>1</sup>/<sub>8</sub>-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

### Physical/Electrical Specifications

<b>Standard Operating Temperature</b>	32°F to 120°F (0°C to 49°C)
<b>Humidity Range</b>	10 to 93% non-condensing
<b>Strobe Flash Rate</b>	1 flash per second
<b>Nominal Voltage</b>	Regulated 12 DC or regulated 24 DC/FWR <sup>1</sup>
<b>Operating Voltage Range<sup>2</sup></b>	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
<b>Operating Voltage Range MDL3 Sync Module</b>	8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal)
<b>Input Terminal Wire Gauge</b>	12 to 18 AWG
<b>Wall-Mount Dimensions (including lens)</b>	5.6" L x 4.7" W x 1.91" D (143 mm L x 119 mm W x 49 mm D)
<b>Compact Wall-Mount Dimensions (including lens)</b>	5.26" L x 3.46" W x 1.91" D (133 mm L x 88 mm W x 49 mm D)
<b>Horn Dimensions</b>	5.6" L x 4.7" W x 1.25" D (143 mm L x 119 mm W x 32 mm D)
<b>Compact Horn Dimensions</b>	5.25" L x 3.45" W x 1.25" D (133 mm L x 88 mm W x 32 mm D)

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.

2. Strobe products will operate at 12 V nominal only for 15 cd and 30 cd.

## UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)				
	Candela	8–17.5 Volts	16–33 Volts	
		DC	DC	FWR
Candela Range	15	88	43	60
	30	143	63	83
	75	N/A	107	136
	95	N/A	121	155
	110	N/A	148	179
	135	N/A	172	209
	185	N/A	222	257

UL Max. Horn Current Draw (mA RMS)				
		8–17.5 Volts	16–33 Volts	
		DC	DC	FWR
Sound Pattern	dB			
Temporal	High	39	44	54
Temporal	Low	28	32	54
Non-Temporal	High	43	47	54
Non-Temporal	Low	29	32	54
3.1 KHz Temporal	High	39	41	54
3.1 KHz Temporal	Low	29	32	54
3.1 KHz Non-Temporal	High	42	43	54
3.1 KHz Non-Temporal	Low	28	29	54
Coded	High	43	47	54
3.1 KHz Coded	High	42	43	54

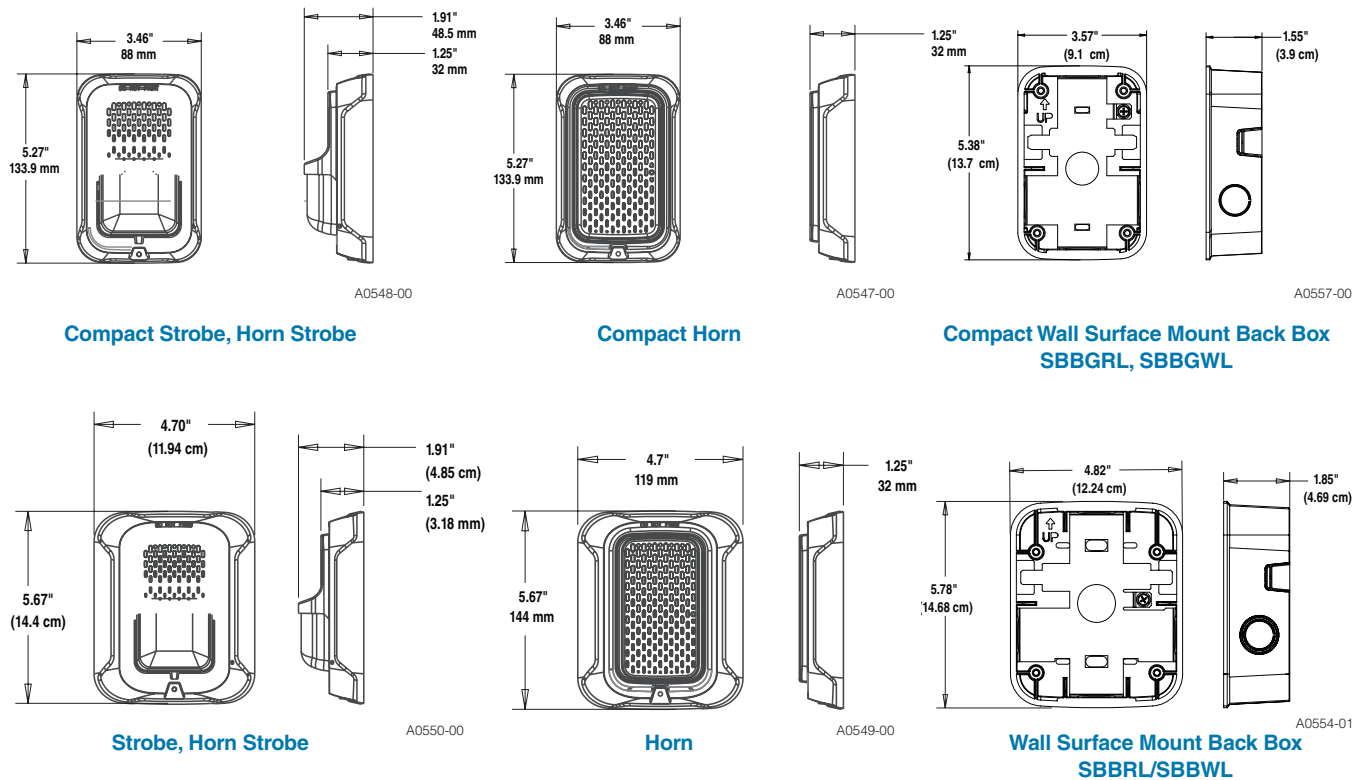
UL Max. Current Draw (mA RMS), Wall Horn Strobe, Candela Range (15–185 cd)									
DC Input	8–17.5 Volts		16–33 Volts						
	15cd	30cd	15cd	30cd	75cd	95cd	110cd	135cd	185cd
Temporal High	98	158	54	74	121	142	162	196	245
Temporal Low	93	154	44	65	111	133	157	184	235
Non-Temporal High	106	166	73	94	139	160	182	211	262
Non-Temporal Low	93	156	51	71	119	139	162	190	239
3.1K Temporal High	93	156	53	73	119	140	164	190	242
3.1K Temporal Low	91	154	45	66	112	133	160	185	235
3.1K Non-Temporal High	99	162	69	90	135	157	175	208	261
3.1K Non-Temporal Low	93	156	52	72	119	138	162	192	242
FWR Input	16–33 Volts								
	15cd	30cd	75cd	95cd	110cd	135cd	185cd		
Temporal High	83	107	156	177	198	234	287		
Temporal Low	68	91	145	165	185	223	271		
Non-Temporal High	111	135	185	207	230	264	316		
Non-Temporal Low	79	104	157	175	197	235	283		
3.1K Temporal High	81	105	155	177	196	234	284		
3.1K Temporal Low	68	90	145	166	186	222	276		
3.1K Non-Temporal High	104	131	177	204	230	264	326		
3.1K Non-Temporal Low	77	102	156	177	199	234	291		

## Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)					
Switch Position	Sound Pattern	dB	8–17.5 Volts	16–33 Volts	FWR
			DC	DC	
1	Temporal	High	84	89	89
2	Temporal	Low	75	83	83
3	Non-Temporal	High	85	90	90
4	Non-Temporal	Low	76	84	84
5	3.1 KHz Temporal	High	83	88	88
6	3.1 KHz Temporal	Low	76	82	82
7	3.1 KHz Non-Temporal	High	84	89	89
8	3.1 KHz Non-Temporal	Low	77	83	83
9*	Coded	High	85	90	90
10*	3.1 KHz Coded	High	84	89	89

\* Settings 9 and 10 are not available on 2-wire horn strobes. Temporal coding must be provided by the NAC. If the NAC voltage is held constant, the horn output remains constantly on.

## L-Series Dimensions



## L-Series Ordering Information

Model	Description
<b>Wall Horn Strobes</b>	
P2RL	2-Wire, Horn Strobe, Red
P2WL	2-Wire, Horn Strobe, White
P2GRL	2-Wire, Compact Horn Strobe, Red
P2GWL	2-Wire, Comp 2 fils act Horn Strobe, White
P2RL-P	2-Wire, Horn Strobe, Red, Plain
P2WL-P	2-Wire, Horn Strobe, White, Plain
P2RL-SP	2-Wire, Horn Strobe, Red, FUEGO
P2WL-SP	2-Wire, Horn Strobe, White, FUEGO
P4RL	4-Wire, Horn Strobe, Red
P4WL	4-Wire, Horn Strobe, White
<b>Wall Strobes</b>	
SRL	Strobe, Red
SWL	Strobe, White
SGRL	Compact Strobe, Red
SGWL	Compact Strobe, White
SRL-P	Strobe, Red, Plain
SWL-P	Strobe, White, Plain
SRL-SP	Strobe, Red, FUEGO
SWL-CLR-ALERT	Strobe, White, ALERT

Model	Description
<b>Horns*</b>	
HRL*	Horn, Red
HWL*	Horn, White
HGRL*	Compact Horn, Red
HGWL*	Compact Horn, White
<b>Accessories</b>	
TR-2	Universal Wall Trim Ring Red
TR-2W	Universal Wall Trim Ring White
SBBRL	Wall Surface Mount Back Box, Red
SBBWL	Wall Surface Mount Back Box, White
SBBGRL	Compact Wall Surface Mount Back Box, Red
SBBGWL	Compact Wall Surface Mount Back Box, White

### Notes:

All -P models have a plain housing (no "FIRE" marking on cover).

All -SP models have "FUEGO" marking on cover.

All -ALERT models have "ALERT" marking on cover.

\*Horn-only models are listed for wall or ceiling use.



3825 Ohio Avenue • St. Charles, IL 60174  
 Phone: 800-SENSOR2 • Fax: 630-377-6495  
[www.systemsensor.com](http://www.systemsensor.com)

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 AVDS865-05 • 2/22/2018

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



## LISTING SERVICE

**LISTING No.** 7300-0328:0514

Page 1 of 1

**CATEGORY:** 7300 -- FIRE ALARM CONTROL UNIT ACCESSORIES/MISC. DEVICES

**LISTEE:** Potter Electric Signal Co 1609 Park 370 Place, Hazelwood, MO 63042 United States  
Contact: Brad Serangeli (314) 595-6900 Fax (314) 595-6999  
Email: brads@pottersignal.com

**DESIGN:** Model PAD100-DIM Dual Input Module  
Model PAD100-LED Addressable LED Module  
Model PAD100-OROI One Relay-One Input Module  
Model PAD100-RM Relay Module  
Model PAD100-SIM Single Input Module  
Model PAD100-TRTI Two Relay-Two Input Module  
Model PAD100-ZM Zone Module  
Model PAD100-IM Isolator Module  
Model PAD100-NAC Notification Appliance Circuit Module  
Model PAD100-SM Speaker Module  
Model PAD100-MIM Micro Input Module  
Model PAD1---LEDK Key Switch Module  
Model PAD100-DRTS Duct Remote Test Switch  
Model SLCE127 Point SLC Expander  
Model MC-1000 Multi Connect  
Model PAD100-DUCTR  
Model AE-2 Enclosure

Refer to listee's data sheet for detailed product description and operational considerations.

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction.

**MARKING:** Listee's name, model designation, rating and UL label.

**APPROVAL:** Listed as fire alarm control unit accessories for use with listee's separately listed fire alarm control panels. Refer to listee's Installation Instruction Manual for details.

09-11-18 gt



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

Date Issued: **July 01, 2021**

Listing Expires **June 30, 2022**

Authorized By: **DAVID CASTILLO,, M.E., F.P.E.**  
*Fire Engineering Division*

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



# LISTING SERVICE

**LISTING No.** 7125-1653:0504

Page 1 of 2

**CATEGORY:** 7125 -- FIRE ALARM DEVICES FOR THE HEARING IMPAIRED

**LISTEE:** System Sensor, Unincorporated Div of Honeywell Int'l Inc. 3825 Ohio Ave, St. Charles, IL 60174  
Contact: Lisa Brant (203) 484-6105 Fax (203) 484-7309  
Email: lisa.brant@honeywell.com

**DESIGN:** System Sensor Indoor 2-wire Models:  
SRL, SWL, SGRL, SGWL, SRL-P SWL-P, SRL-SP, SWL-CLR-ALERT and SWL-ALERT  
Wall Strobes;  
SCRL, SCWL and SCWL-CLR-ALERT Ceiling Strobes.

**Wall Bezel Parts:**

BZR-F, BZR-AL, BZR-AG, BZR-EV, BZR-P, BZR-SP, BZR-PG,  
BZW-F, BZW-AL, BZW-AG, BZW-EV, BZW-P, BZW-SP, BZW-PG,  
BZGR-F, BZGR-AL, BZGR-AG, BZGR-EV, BZGR-P, BZGR-SP, BZGR-PG,  
BZGW-F, BZGW-AL, BZGW-AG, BZGW-EV, BZGW-P, BZGW-SP and BZGW-PG,

**Ceiling Bezel Parts:**

BZRC-F, BZRC-AL, BZRC-AG, BZRC-EV, BZRC-P, BZRC-SP, BZRC-PG,  
BZWC-F, BZWC-AL, BZWC-AG, BZWC-EV, BZWC-P, BZWC-SP and BZWC-PG.

**Color Lens:**

LENS-A2, LENS-B2, LENS-G2, LENS-R2, LENS-AC2, LENS-BC2, LENS-GC2 and LENS-RC2.

**Wall Trim Rings:**

TR2 and TR2W

**Ceiling Trim Rings:**

TRC2 and TRC2W.

**Wall Surface Mounted Back Boxes:**

SBBRL, SBBGRL, SBBWL and SBBGWL,

**Ceiling Surface Mounted Back Boxes:**

SBBCRL and SBBCWL

Refer to listee's data sheet for detailed product description and operational considerations.

\*Rev 04-04-19 gt



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

**Date Issued:** July 01, 2021

**Listing Expires** June 30, 2022

**Authorized By:** DAVID CASTILLO, M.E., F.P.E.

*Fire Engineering Division*

**RATING:** Regulated 12 VDC setting: 8-17.5 VDC  
Regulated 24 VDC/fwr setting: 16-33 VDC

**INSTALLATION:** In accordance with listee's printed installation instructions, NFPA 72, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction.

**MARKING:** Listee's name, model number, electrical rating, and UL label.

**APPROVAL:** Listed as two wire strobe units used for synchronous application when used with separately listed compatible fire alarm control units. Suitable for indoor use, vertical wall or horizontal ceiling mounted. \*Listed with software code, S05-0048-001 for low temperature compensation. Authority having jurisdiction should be consulted prior to installation. Refer to listee's Installation Instruction Manual for details.

\*Rev 04-04-19 gt



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Date Issued: **July 01, 2021**Listing Expires **June 30, 2022**

Authorized By: **DAVID CASTILLO,, M.E., F.P.E.**  
*Fire Engineering Division*

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



# LISTING SERVICE

**LISTING No.** 7135-1653:0503

Page 1 of 2

**CATEGORY:** 7135 -- AUDIBLE DEVICES

**LISTEE:** System Sensor, Unincorporated Div of Honeywell Int'l Inc. 3825 Ohio Ave, St. Charles, IL 60174  
Contact: Lisa Brant (203) 484-6105 Fax (203) 484-7309  
Email: lisa.brant@honeywell.com

**DESIGN:** System Sensor Indoor 2-wire and \*4-wire Models:  
HWL, HRL, HGWL and HGRL Horns;  
CHWL and CHRL Chimes;  
P2RL, P2WL, P2GRL, P2GWL, P2RL-P, P2WL-P, P2RL-SP, P2WL-SP, \*P4RL and \*P4WL  
Wall Horn Strobes;  
PC2RL, PC2WL, \*PC4RL and \*PC4WL Ceiling Horn Strobes;  
CHSRL and CHSWL Wall Chime Strobes;  
CHSCRL and CHSCWL Ceiling Chime Strobes;

**Wall Bezel Parts:**

BZR-F, BZR-AL, BZR-AG, BZR-EV, BZR-P, BZR-SP, BZR-PG,  
BZW-F, BZW-AL, BZW-AG, BZW-EV, BZW-P, BZW-SP, BZW-PG,  
BZGR-F, BZGR-AL, BZGR-AG, BZGR-EV, BZGR-P, BZGR-SP, BZGR-PG,  
BZGW-F, BZGW-AL, BZGW-AG, BZGW-EV, BZGW-P, BZGW-SP and BZGW-PG,

**Ceiling Bezel Parts:**

BZRC-F, BZRC-AL, BZRC-AG, BZRC-EV, BZRC-P, BZRC-SP, BZRC-PG,  
BZWC-F, BZWC-AL, BZWC-AG, BZWC-EV, BZWC-P, BZWC-SP and BZWC-PG.

**Color Lens:**

LENS-A2, LENS-B2, LENS-G2, LENS-R2, LENS-AC2, LENS-BC2, LENS-GC2 and  
LENS-RC2.

**Wall Trim Rings:**

\*TR-2 and \*TR-2W

**Ceiling Trim Rings:**

\*TRC-2 and \*TRC-2W.

**Wall Surface Mounted Back Boxes:**

SBBRL, SBBGRL, SBBWL and SBBGWL,

**Ceiling Surface Mounted Back Boxes:**

Revision 08-21-2017 dcc



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

**Date Issued:** July 01, 2021

**Listing Expires** June 30, 2022

**Authorized By:** DAVID CASTILLO, M.E., F.P.E.

*Fire Engineering Division*

SBBCRL and SBBCWL

MP120KL 120 VAC Adapter Mounting Plate

Refer to listee's data sheet for detailed product description and operational considerations.

- RATING:** 12 VDC regulated and 24 VDC/FWR
- INSTALLATION:** In accordance with listee's printed installation instructions, NFPA 72, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction.
- MARKING:** Listee's name, model number, electrical rating, and UL label.
- APPROVAL:** Listed as audible devices when used with separately listed compatible fire alarm control units. Suitable for indoor use, wall or ceiling mounted. Authority having jurisdiction should be consulted prior to installation. Refer to listee's Installation Instruction Manual for details.

Revision 08-21-2017 dcc



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

Date Issued: **July 01, 2021**

*Listing Expires* **June 30, 2022**

Authorized By: **DAVID CASTILLO, M.E., F.P.E.**  
*Fire Engineering Division*

# VSH1230 Component Submittal Sheets

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## Caution Labels

Two caution labels are available for indicating the presence of a Viking VSH1230 suppression system. Each caution label is made of aluminum. Label must be located in areas visible to the personnel located within or near the protected areas.

### Technical Data

Material.....Aluminum  
Thickness....0.02 in.  
Weight.....0.26 lb.  
Dimensions 10 in. x 10 in.

### Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

### Shipping Assembly

<u>Part No.</u>	<u>Description</u>
16988	WARNING: This area is protected by a VSH1230 Fire Suppression system
16988-S	Spanish Version
16989	WARNING: Do <u>NOT</u> re-enter until area is thoroughly ventilated
16989-S	Spanish Version



## Agent Tanks (Pressurized at 725 psi (50 bar))

The agent tank assemblies are manufactured in accordance with DOT and include the finished tank, shipping cap, valve assembly, and siphon tube and pressure gauge/low pressure switch. A nameplate is adhered to the finished tank displaying the agent weight and gross weight of the complete charged assembly. Tanks are super-pressurized with dry nitrogen at 725 psi (50 bar) at 70 °F (21 °C).

When ordering charged tank assemblies, the quantity of agent must be ordered with tank part number hyphen agent quantity in lbs. i.e. 888591 – 100, quantity is in 1 lb. increments.

Nominal Volume	Shipping Part No.	"A"	"B"	Dia.	Min. Fill (lb)	Max. Fill (lb)	Empty Weight (lb)
220 lb	926274 888591*	58.5 in.	34.9 in.	16.0 in.	71 lb	211 lb	218 lb
390 lb	926278 888593*	80.2 in.	53.8 in.	16.0 in.	124 lb	370 lb	289 lb
500 lb	926280 888595*	88.0 in.	67.5 in.	16.0 in.	159 lb	476 lb	395 lb
*Limited availability.							

### Technical Data

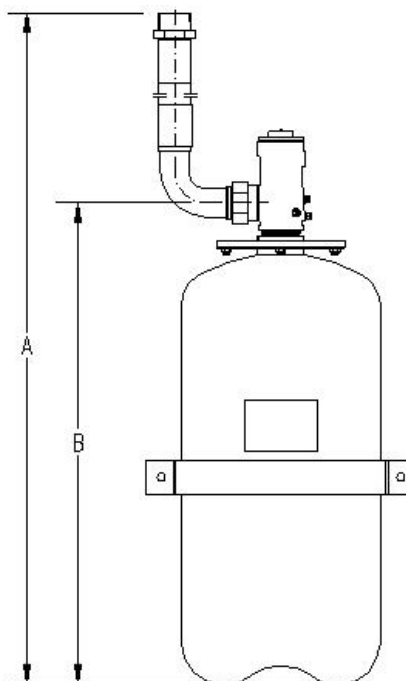
Tank Material.....Steel  
 Tank Finish.....Red  
 Nameplate.....PVC foil self adhesive  
 Valve.....Brass

### Listings/Approvals

UL Listed.....EX-5248  
 ULC Listed.....EX-5248  
 FM Approved....File No. 3035914

### Shipping Assembly

See chart above



# Mounting Bracket

The mounting bracket is required to properly and safely secure the agent tank assemblies to a rigid vertical mounting surface.

Brackets are available for 360 psi (25 bar) and 725 psi (50 bar) agent tanks. Each size tank requires only one bracket.

Size Tank Used On	Shipping Assembly Part No.	Radius (R)	"B"	Weight
60 lb.....360 psi 140 lb....360 psi	19368W/B* or 923157	5.3 in. or 5.1	4.72 in.	3.2 lb
280 lb....360 psi 390 lb....360/725 psi 220 lb....725 psi 500 lb....725 psi	887639	8.1 in.	7.87 in.	4.6 lb

## Technical Data

Material.....Steel  
Finish.....Matt-finish or powder-coated, graphite black

## Listings/Approvals

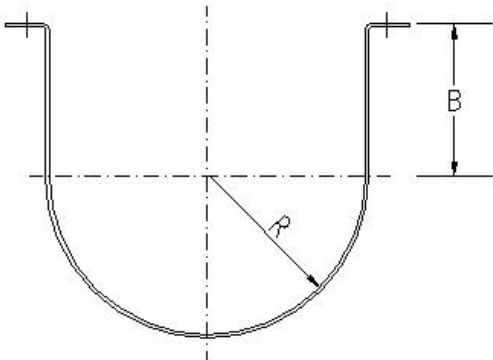
UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914



## Shipping Assembly

See chart above

\*Limited availability



# Nozzles

The Viking VSH-1230 Fire Suppression System offers several sizes of both 180° and 360° agent discharge nozzles. All nozzles are manufactured in brass and are available with NPT threads. A wide range of drilled orifice sizes are available to meet any discharge rate requirement. Orifice plates are drilled per VSH DesignManager calculations.

## 180° Nozzle

Size	Part No.		Orifice Diameter Min.....Max. (0.004 in. increments unless noted in parentheses)	“A”	“B”	SW (Across Flats)
	Brass	Stainless Steel				
½ in. NPT	889061	889065	0.118 in.....0.512 in. (0.510 & 0.512)	2.2 in.	0.9 in.	1.2 in.
1 in. NPT	889062	889066	0.118 in.....0.886 in.	3.8 in.	2.0 in.	2.0 in.
1 ½ in. NPT	889063	889067	0.118 in.....1.398 in.	3.8 in.	3.4 in.	3.4 in.
2 in. NPT	889064	889068	0.118 in.....1.752 in. (1.750 & 1.752)	3.8 in.	3.4 in.	3.4 in.

## 360° Nozzle

Size	Part No.		Orifice Diameter Min.....Max. (0.004 in. increments unless noted in parentheses)	“A”	“B”	SW (Across Flats)
	Brass	Stainless Steel				
½ in. NPT	889069	889074	0.118 in.....0.512 in. (0.510 & 0.512)	2.2 in.	0.9 in.	1.2 in.
1 in. NPT	889070	889075	0.118 in.....0.886 in.	3.8 in.	2.0 in.	2.0 in.
1 ½ in. NPT	888071	889076	0.118 in.....1.398 in.	3.8 in.	3.4 in.	3.4 in.
2 in. NPT	889073	889077	0.118 in.....1.752 in. (1.750 & 1.752)	3.8 in.	3.4 in.	3.4 in.

## Technical Data

Material.....Brass  
Finish.....Brass

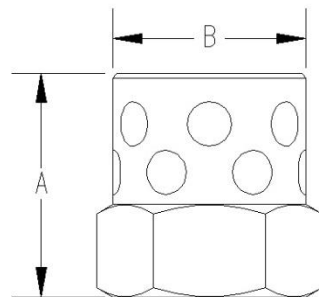
Installation height 14’ and 17’9” with adjusted design concentration  
Max Nozzle Area Coverage 1,024 ft

## Listings/Approvals

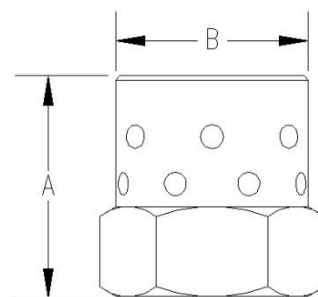
UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

See chart above



180° Nozzle - Radius 35.77 ft



360° Nozzle – Radius 22.6 ft

## Ordering Information

Order nozzle part no. – orifice code (i.e. 889061-0512)

# Tank Valves 2 1/2 in.-12UN (Replacement)

Tank valves are available for field replacement. All replacement valves have been 100% factory tested, fully assembled with all required internal components. Contact pressure gauge is not included with replacement valve.

Valves can be electrically, pneumatically, and manually actuated using the proper actuators.

Replacement valves are available for 360 psi (25 bar) and 725 psi (50 bar) systems.

### Technical Data

- Valve body.....Brass
- Bursting disc....Nickel
- Spring.....Steel
- O-rings/Seal.....NBR
- Weight.....9.7 lb.
- Outlet thread....2 1/2"-12 UN
- Outlet 2" with 17563 Swivel Adaptor
- Outlet 2" with 912076 90° Discharge Hose

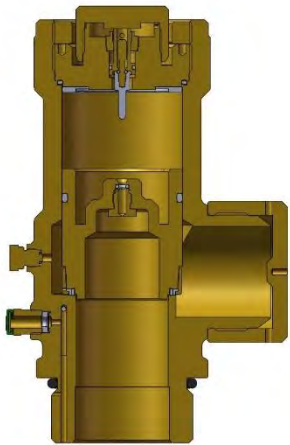
### Listings/Approvals

Use with part 17563 or 912076

- UL Listed.....EX-5248
- ULC Listed.....EX-5248
- FM Approved....File No. 3035914

### Shipping Assembly

<u>Part No.</u>	<u>Description</u>
887966	360 psi (25 bar) valve
887664	725 psi (50 bar) valve



# Tank Valves 1 7/8 in.-12UN (Replacement)

Tank valves are available for field replacement. All replacement valves have been 100% factory tested, fully assembled with all required internal components. Contact pressure gauge is not included with replacement valve.

Valves can be electrically, pneumatically, and manually actuated using the proper actuators.

Replacement valves are available for 360 psi (25 bar) and 725 psi (50 bar) systems.

Technical Data

Valve body.....Brass  
Bursting disc....Nickel  
Spring.....Steel  
O-rings/Seal.....NBR  
Weight.....19.6 lb.  
Outlet.....1 7/8-12 UN

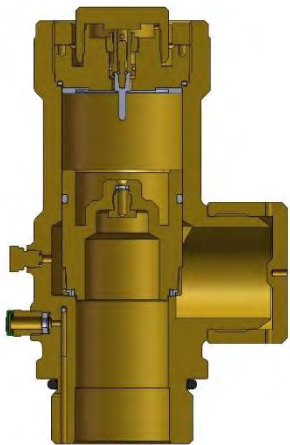
Listings/Approvals

Use with part 17562 or 912075

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
887964	360 psi (25 bar) valve



# Pneumatic Release

The pneumatic release can be use to actuate the agent tank valves. The release operates from pilot line pressure received from the control tank. When pressurized, the release pin is forced into the down position which then causes the agent tank valve to open. The release is spring loaded, therefore will reset itself when the pilot line pressure is relieved.

## Technical Data

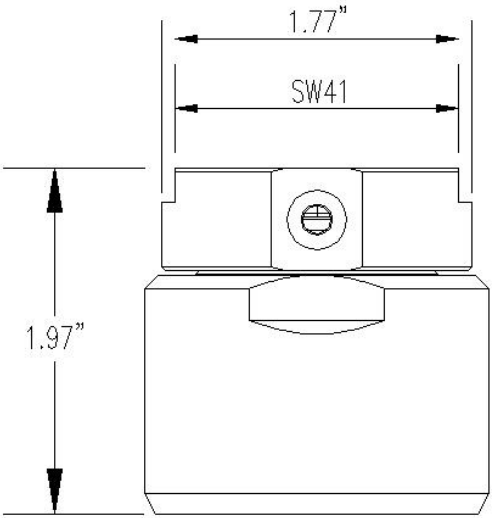
Body.....Brass  
Spring.....Stainless Steel

## Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

Part No.	Description
887669	Pneumatic release



## Manual Release

The manual release assembly contains a hand lever which can be used to manually actuate the tank valve. When the ring pin is pulled from the lever, the lever can be pushed down, moving the internal pin down, which will cause the tank valve to actuate. The release is not spring-loaded, therefore it must be reset manually after actuation. Manual reset requires pushing the pin up, back into the body of the release.

### Technical Data

Body.....Brass  
Handle.....Stainless Steel  
Spring.....Stainless Steel

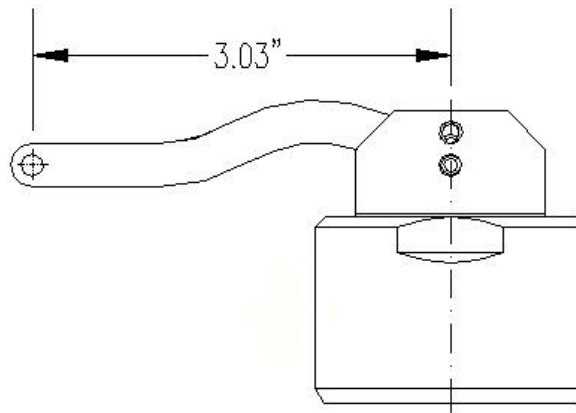
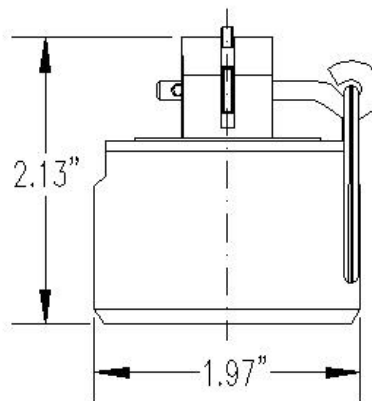
### Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

### Shipping Assembly

<u>Part No.</u>	<u>Description</u>
-----------------	--------------------

887668	Manual release
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# Manual/Pneumatic Release

The manual/pneumatic release can be used to actuate the agent tank valves. The pneumatic portion of the release operates from pilot line pressure received from the control tank. When pressurized, the release pin is forced into the down position which then causes the agent tank valve to open. The manual portion of the release contains a hand lever which can be used to manually actuate the tank valve. When the ring pin is pulled from the lever, the lever can be pushed down, moving the internal pin down, which will cause the tank valve to actuate. The release is not spring loaded, therefore it must be reset manually after actuation. Manual reset requires pushing the pin up, into the body of the release.

## Technical Data

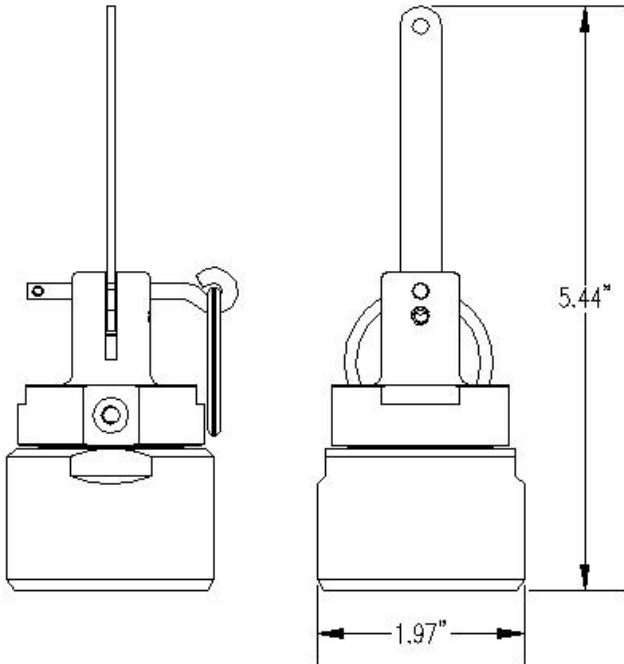
Body.....Brass  
Spring.....Stainless Steel

## Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

Part No.	Description
887670	Manual/pneumatic release



## Electric Release

The 24V electric release can be used to electrically actuate the agent tank valve. An electric signal is required from the detection panel. This signal operates an internal solenoid which actuates the release mechanism. The release mechanism then opens tank valve. Only one electric release is required on multiple tank system. The remaining tank valves are opened by agent pressure through the pilot line.

### Technical Data

Nominal Voltage.....24VDC  
Nominal Current.....0.5 A  
IP Code.....P65  
Max. Permitted Test Current...20 mA  
Electrical Inlet.....1/2 in. NPT  
Weight.....5.5 lb

### Listings/Approvals

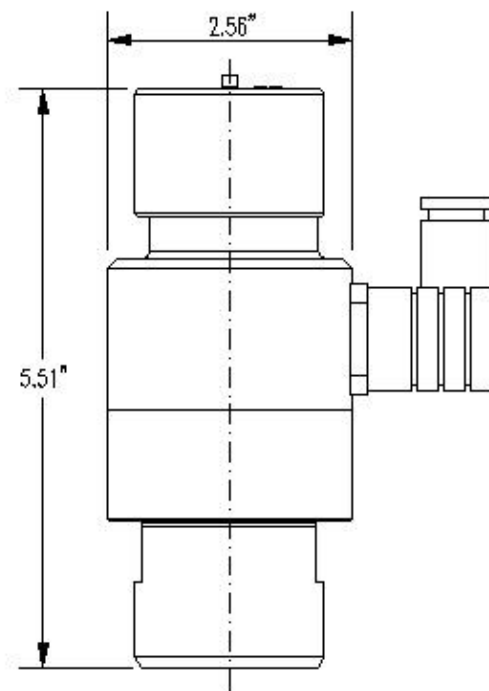
UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

### Shipping Assembly

<u>Part No.</u>	<u>Description</u>
889323D	Release without diode
17096	(see Notes) Electric release screw reset tool

### **Notes:**

- **17096 becomes 887645 effective 2020**
- **Polarity must be observed when wiring the release to control panel. The release will not operate if installed with reverse polarity.**
- **To reset the electric release, the reset tool Must be threaded into the base of the release until it stops. Remove the reset tool and visually inspect the pin inside the release. If the red marking on the pin is not visual, the release has been correctly reset.**



# Check Valve

The agent piping network for multiple tank (manifold) systems requires a check valve at each tank outlet. The check valve is required to prevent the loss of agent during a system discharge if, for some reason, a tank has been removed or disconnected from the piping network. The valve is installed between the agent tank valve and the piping manifold.

## Technical Data

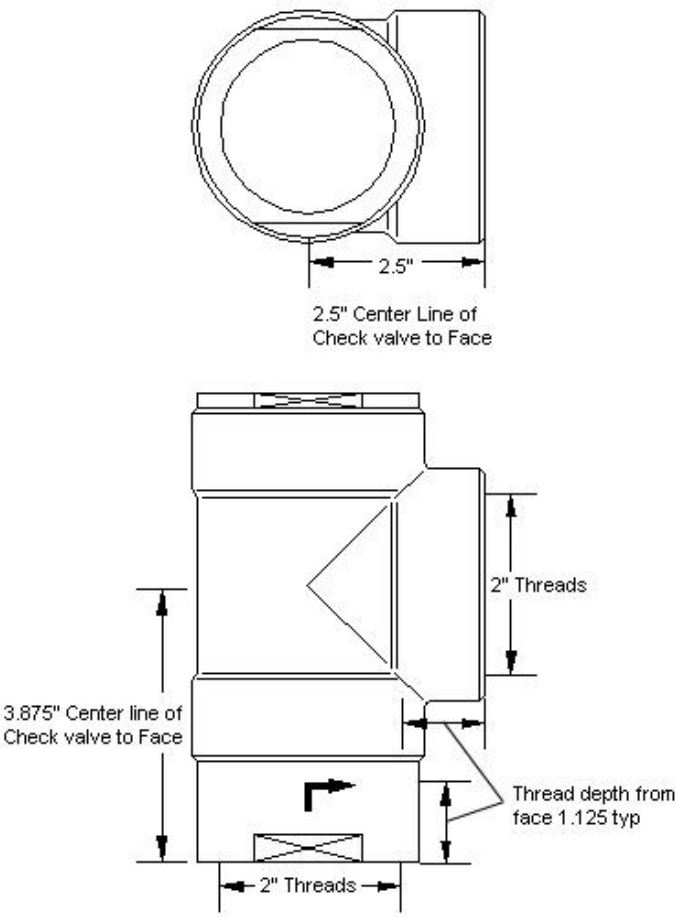
Body.....galvanized steel  
Internal components....stainless steel  
Spring.....stainless steel  
Seal.....NBR

## Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

Part No.	Description
912071	2" Check Valve



# Pilot Hose

The pilot hose is required for pneumatic actuation of multiply tanks. The pressure from the control tank, upon actuation, is routed through the pilot hose to actuate the remaining tanks in the system. The hose requires the use of an adaptor for attaching to agent tank valves.

## Technical Data

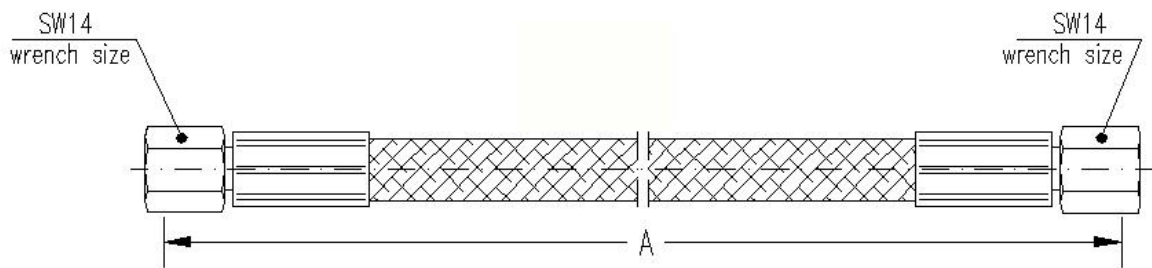
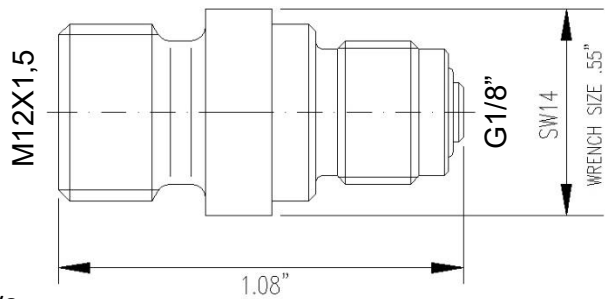
ID.....0.157 in.  
Material....Rubber  
Fittings.....Stainless Steel  
Min. bend radius....3.5 in.

## Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

Part No.	Description
887834	Hose (23.6 in. long) (A)
887835	Hose (39.4 in. long) (A)
887836	Hose (59.1 in. long) (A)
887644	Pilot Hose Adaptor M12x1.5 – G1/8



## Discharge Hose

The agent discharge hose is required to connect the tank valve to the piping network, manifold or check valve. The hose allows for a secure connection between the agent tank(s) and the piping network. Two lengths of hoses are available.

Style	Part No.	Length (A)	Length (B)	SW1	SW2	Weight-lb
90° Bend	912075	17.7 in.	4.75 in.	2.4 in.	2.0 in.	3.1 lb
90° Bend	912076	20.5 in.	6 in.	2.8 in.	2.6 in.	6.0 lb

### Technical Data

Material.....Rubber  
Fittings.....Stainless Steel

### Listings/Approvals

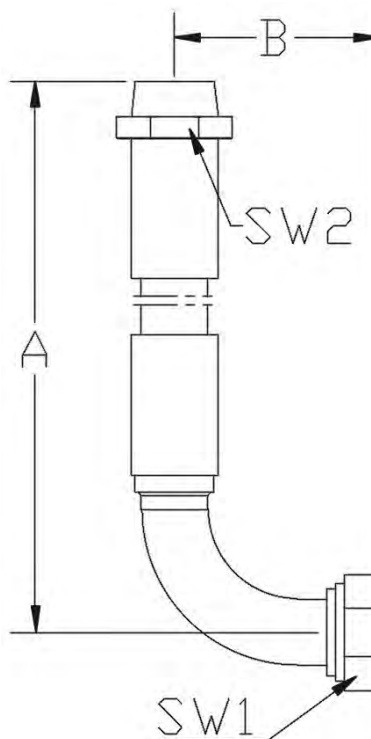
UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

### Shipping Assembly

See above

912075          1 ½" NPT Discharge Hose

912076          2" NPT Discharge Hose



# Contact Pressure Gauge/Low Pressure Switch - VSH1230

The contact pressure gauge/low pressure switch is installed in the agent tank valve. The gauge is available in either normally open (NO) or normally closed (NC) contacts. The contacts are activated by the decrease in tank pressure during a system discharge or loss of tank pressure due to a leak. Switches are available for either 360 psi (25 bar) or 725 psi (50) tanks.

## Technical Data

Material.....Aluminum  
Switching Voltage....4.5 – 24 VDC/VAC  
Switching Current.....5 – 100mA  
Contact Load.....Max. 3W, dry contact  
Switch Point 360 psi Gauge....324 psi  
Switch Point 725 psi Gauge....653 psi

## Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

<u>Part No.</u>	<u>Description</u>
889303	360 psi (25 bar) Gauge (NC at switching point; NO under pressure)
889305	725 psi (50 bar) Gauge (NC at switching point; NO under pressure)



360 psi (25 bar)



725 psi (50 bar)

# Pilot Hose/Valve Adaptor

The adaptor is required to connect pilot hose to tank valves, pneumatic/manual releases, and pneumatic releases.

Technical Data

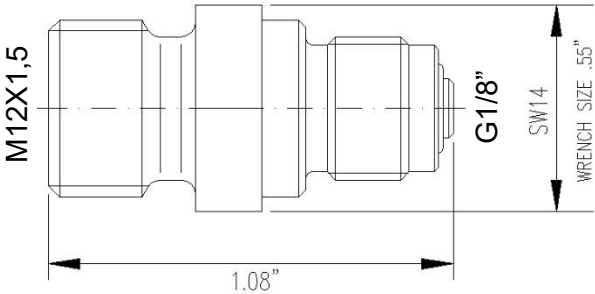
Material.....Brass

Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
887644	Pilot Hose Adaptor M12x1.5 – G1/8



# Safety Malfunction Device

The safety malfunction device is designed to release small amounts of leakage pressure in pneumatic pilot lines. The device closes automatically on higher pressure. The device must be installed in the vertical position. Available as an assembly.

## Technical Data

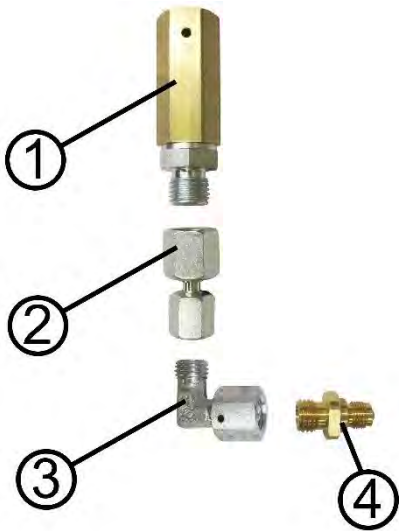
Material.....Brass  
Gasket.....NBR  
Weight.....0.33 lb.

## Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

<u>Part No.</u>	<u>Description</u>
16010	Pressure Malfunction Safety Assembly



Pressure relief (individual parts)  
Item 1 Safety device malfunction pressure order no. 88 5869  
Item 2 Union, order no. 910650  
Item 3 Union order no. 889145  
Item 4 Adapter order no. 887644  
(for release device pneumatic or pneumatic/manual)

# Swivel Adaptor (Tank to Pipe)

The swivel adaptor is used to connect the agent tank valve outlet with the NPT piping network. Two sizes are available, 1 1/2 in. and 2 in. outlet size.

## Technical Data

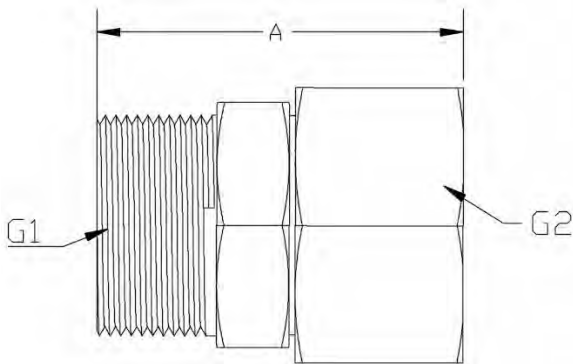
Material.....Galvanized Steel  
Weight.....1 1/2 in. size 2.2 lb  
                  2 in. size 2.9 lb

## Listings/Approvals

UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

<u>Part No.</u>	<u>Description</u>
17562	1 7/8"-12 UN. Valve Connection (G2) to 1 1/2" NPT Pipe Connection (G1) A=3"
17563	2"-12 UN. Valve Connection (G2) to 2" NPT Pipe Connection (G1) A=3 1/2"



# Pneumatic Limit/Pressure Switch

The pneumatic operated limit/pressure switch can be mounted in the agent distribution piping. Upon system discharge, the agent pressure in the piping network will actuate the switch, causing the internal electrical contacts to either open or close. This action can be used to signal alarms, turn on warning lights, cause door closures to operate, etc.

## Technical Data

Material.....Alloy Die-cast Metal  
IP Rating.....IP65  
Nominal Isolation Voltage....500V  
Permanent Current....16A  
Nominal Operation Current....6A, 400 VAC  
Weight.....3.3 lb.

## Listings/Approvals

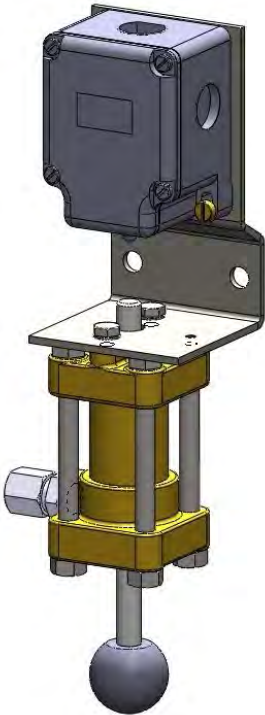
UL Listed.....EX-5248  
ULC Listed.....EX-5248  
FM Approved....File No. 3035914

## Shipping Assembly

Part No.	Description
826758D	Pneumatic Discharge Pressure Switch Kit

## Replacement Parts

826758	Pneumatic Discharge Pressure Switch
300057	Adapter M20 x ¾" NPT
17553	Adapter G1/4 x M12 x 1.5
17552	Adapter ¼" NPT x M12 x 1.5
887834	24" Hose (600 mm)
887835	39" Hose (1,000 mm)
887836	59" Hose (1,500 mm)
724420	US 432y-M20-2352 Replacement Limit Switch (2 Contact)



## Solenoid Monitoring Switch (SMS)

The Solenoid Monitoring Switch (SMS) is mounted on the cylinder valve. When the system solenoid is mounted to the valve the SMS will supervise the connection. When the system solenoid is removed the contact will close. This action can be used to signal the disposition to the alarm control panel. The SMS complies with NFPA 2001.

### Technical Data

Contact Rating	1 AMP @ 24 VDC
Temp. Range	-22°F to 176°F (-30°C to 80°C)
IP Rating	IP67

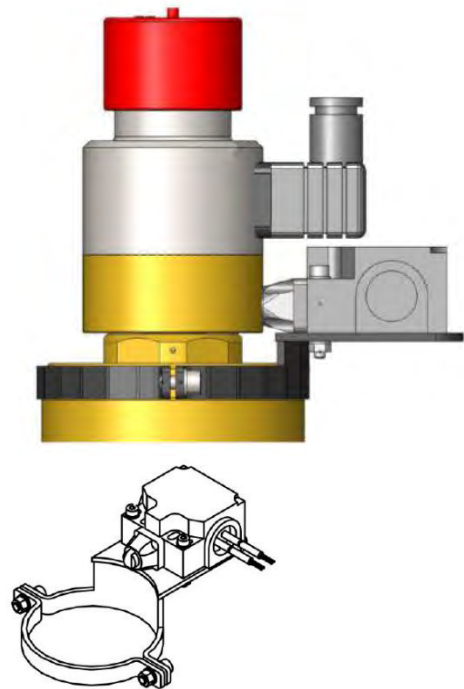
## Listings/Approvals

UL Listed	EX5248
ULC Listed	EX5248
FM Approved	File No. 3035914

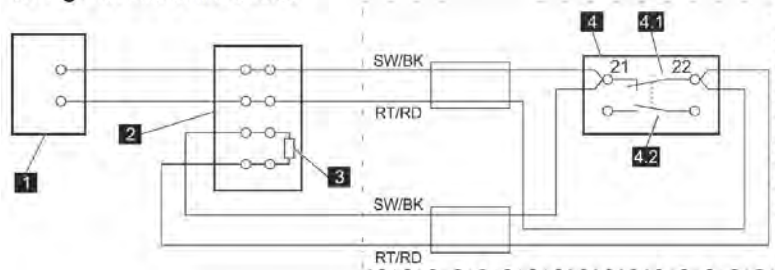
## Shipping Assembly

Part No.	Description
922291D* or 932438D	Solenoid Monitor Switch 1 ½"
922290D* or 932437D	Solenoid Monitor Switch 2"

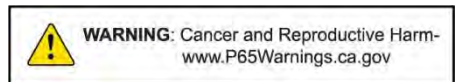
\*Limited availability



### Wiring with end of line device



- 1 Control panel
- 2 Junction box
- 3 End of line device
- 4 Supervisory switch
- 4.1 Make contact; if release device or valve lever are demounted an electric contact is closed
- 4.2 Break contact (not used)



# VESDA Pipes & Fittings



Reliable smoke detection systems are dependent on a network of specialty piping that constantly and efficiently carry air samples from protected zone to highly sensitive detectors.

VESDA Pipe and Fittings are part of an integrated system manufactured from specialty plastics designed for use with most aspirating smoke detection systems, the VESDA VLP system in particular.

## The Concept

The quality of VESDA pipe has been specifically chosen to surpass the requirements for most systems and aims to provide:

- A “one-stop” shopping for detector, pipe and fittings - thus saving procurement time and costs
- An easy and professional installation
- A competitive solution, including a Fast-Track ordering and delivery service
- Committed customer service with full technical advice and support on design and installation
- Design verification using the very latest ASPIRE Pipe Modeling software
- Commissioning, advice, service, and system performance testing

The VESDA pipe range is based on pipework of a standard inside diameter (ID) of 3/4”.

VESDA aspirating smoke detection is an early warning system that detects fire in the incipient stages - before flames are visible - by detecting the products of pre-combustion in the air around the area about to ignite.

The VESDA detector family is the result of extensive research and development. Using unique detection principles, the detector provides a sensitivity range of 0.0015 to 6% obscuration/ft. It detects fire at the earliest possible stage and reliably measures very low to extremely high concentrations of smoke.

The VESDA system samples air from a fire zone for the presence of smoke. The air sampling system makes this possible by providing the means for transporting air from a fire zone to the detector.

The air sampling system is active, continuously drawing in air samples by means of an integral pump. It does not rely on air or heat currents in the vicinity of the detector transporting the smoke particles to the detector. The VESDA system can function effectively in all kinds of environments from high air flows to still air.

The network of sampling pipes to the detector is the key element in the performance of the detection system.

## Features

- UL1887 Listed for use in Plenum Rated Areas
- An integrated CPVC Pipe & Fittings package designed for use with VESDA Aspirating Smoke Detection Systems
- Simplifies the selection of Pipe & Fittings to ensure the correct product is installed
- Simplifies specifier and installers' task and saves time and money
- Pre-labeled Pipes in accordance with NFPA 72 Requirements

# VESDA®

# VESDA Pipes & Fittings

## Air Sampling

Three basic sampling methods can be used in an VESDA system installation:

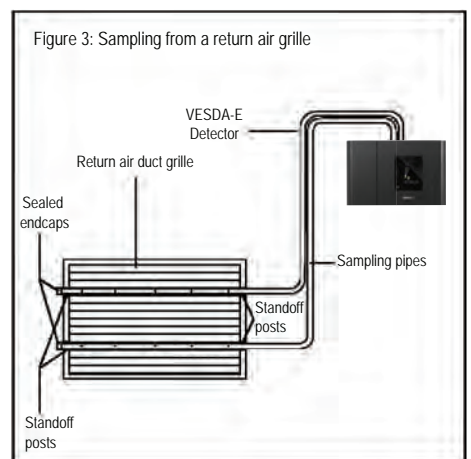
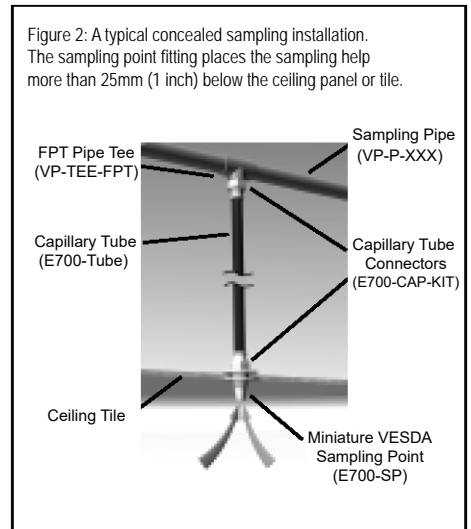
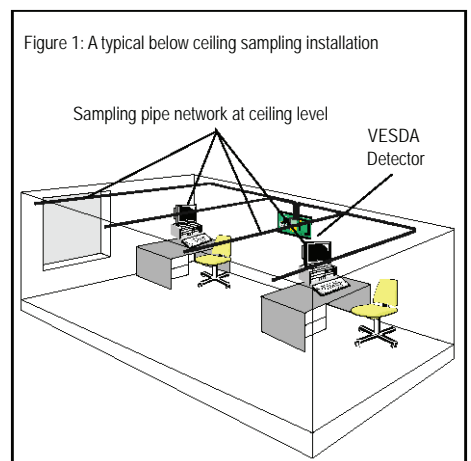
- Standard pipe sampling systems (below ceiling; in ceiling or fl or void)
- Capillary tube sampling (concealed; above ceiling; within cabinets)
- Return air sampling (within duct; return air grille)

While each sampling method is suited to specific applications, more than one method is often effectively employed to monitor a firezone. In some applications - particularly those in which there is movement of high volumes of air – the most effective sampling network generally combines two methods to provide maximum coverage to a zone under all operating conditions.

## System Description

VESDA piping systems are produced from specialty thermoplastics that offer unique benefits. Piping systems are lightweight, and assembled easily in the field using inexpensive tools. The one-step solvent cement joining process ensures fast reliable connections. In addition to ease of installation, this unique piping system offers enhanced flow characteristics and exceptional fire performance properties.

The complete system includes all of the components necessary to install and test the system. This includes: pipe, a comprehensive range of fittings, capillary tube, a variety of sample point configurations, and sampling point labels.



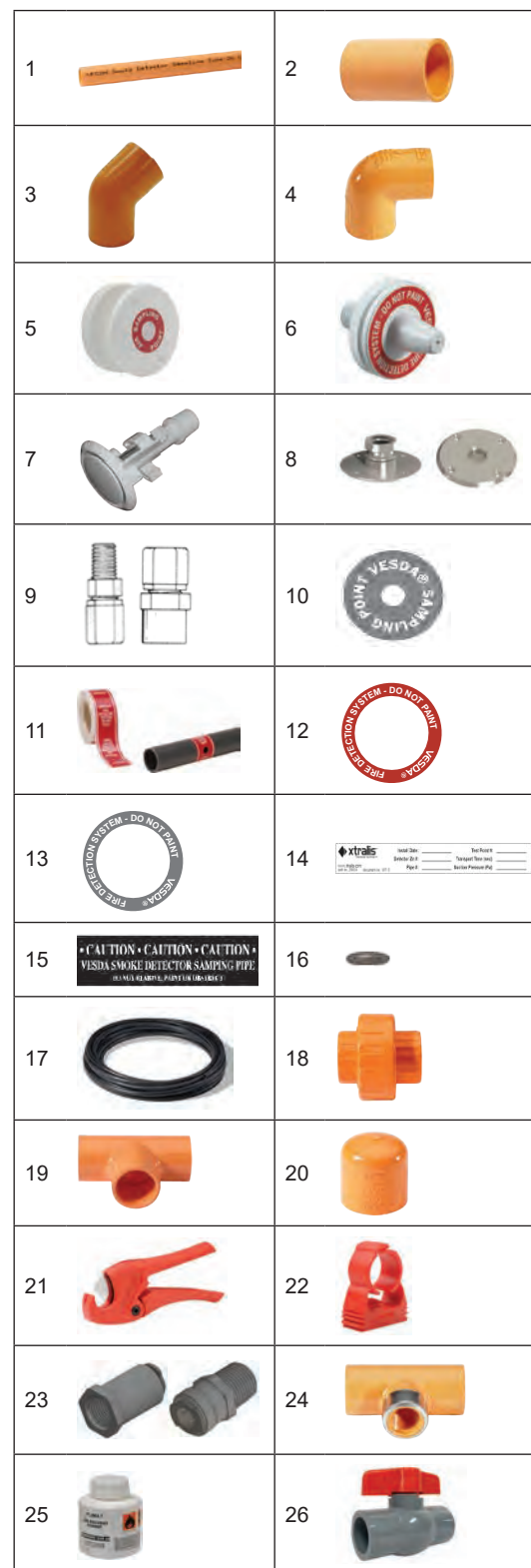
# VESDA®

# VESDA Pipes & Fittings

## Pipe Fittings Ordering Information

### Part Numbers for System Components

1	VP-P-105	Pipe - 3/4" (105 ft. kit)
	VP-P-210	Pipe - 3/4" (210 ft. kit)
	VP-P-420	Pipe - 3/4" (420 ft. kit)
2	VP-COUP	Couplings - 3/4", 15 per box
3	VP-ELB-45	45° Elbow - 3/4", 10 per box
4	VP-ELB-90	90° Elbow - 3/4", 20 per box
5	PIP-015	Flush Sampling Point
6	E700-SP	Miniature Sample Point
7	VSP-877	Flush Mount Sampling Point
8	VSP-610-US	Tamper Proof Sampling Point
9	CAP-KIT	Brass connector kit for miniature sampling point and capillary tube arrangement.
	E700-CAP-KIT	Connector Kits
10	E700-SP-DCL-PNT	Sampling Point Label, 50 per roll
11	E700-SP-DCL	Sampling Point Label, wrap around style, 200 per roll
12	E700-SPLR	Sampling Point Label, red, 10 per sheet
13	E700-SPLG	Sampling Point Label, grey, 8 per sheet
14	VSP-950	Test Point Pipe Labels.
15	E700-SP-DCL-PIPE	Pipe Label, 35 per roll
16	VSP-870-US	In-Line Flow Restrictor Assembly - US, for use with Tamper Proof Sampling Points (models VSP-610-US and VSP-620).
17	E700-TUBE	Capillary Tube 3/8" internal diameter
	TUBING-250	Polyethylene tubing, black, 1/2" OD X 3/8" ID, FPE rated.
18	VP-UNION	Unions - 3/4", 10 per box
19	VP-TEE	Tee - 3/4", 15 per box
20	VP-EC	End Cap - 3/4", 25 per box
21	VP-CUTTERS	Pipe Cutters
22	VP-CLIP-US	3/4" pipe support clamp (required for each 5 feet of pipe).
23	VSP-878	Push-in Connect Adaptor Kit for 1/2" capillary tubing
24	VP-TEE-FPT	Tee - 3/4" x 3/4" x 1/2" FPT, 10 per box
25	VP-CEMENT	Solvent Cement, one pint
26	VP-BV	Ball Valve, 10 per box



**VESDA®**

# VESDA Pipes & Fittings

## Technical Information - Air Sampling Pipe Systems

### Pipe Dimensions

VESDA Pipe systems are produced in ¾" iron pipe size (IPS) pipe dimensions per ASTM F442. This provides piping with unique flow characteristics and exceptionally smooth interior walls, greatly enhancing system performance.

Nominal Size	Average OD	Average ID	Pounds Per Feet
¾" (20mm)	1.050" (26.7mm)	0.874" (22.5mm)	0.168

### Operating Temperature Range

VESDA Pipe and Fittings are suitable for a wide range of operating temperatures from 0°F to 200°F. Although tough and durable, care should be exercised in extremely cold environments to avoid unnecessary rough handling or other forms of mechanical damage.

### Fire Resistance

Flammability Rating	V-O	UL 94 Flame Retardant
Limiting Oxygen Index	60	ASTM D2863
Flame Spread	0	ULC
Smoke Generation	0-25	ULC
Flame Travel	4	UL 1887
Optical Density	0.19 peak 0.03 Avg.	UL 1887
Heat of Combustion	7,700 BTU's/lb.	

### Physical Properties

CPVC is a unique polymer with many beneficial properties. When produced into pipe form, this product exhibits qualities that are extremely advantageous for use in air sampling applications. It is light in weight, exhibits excellent physical, mechanical, and chemical/corrosion resistance properties, and offers exceptional fire performance.

		ASTM
Cell Classification	23477	D1784
Specific Gravity	1.55	D792
Tensile Strength	8400 psi	D638
Modulus of Elasticity	4.23 x10 <sup>5</sup>	D638
Compressive Strength	9600 psi	D695
Izod Impact	3.0	D256A
Coefficient of Linear Expansion	3.4 x 10 <sup>-5</sup>	D696
Temperature Limit	0 – 200°F	
Electrical Conductivity	Non Conductor	

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Doc. no. 17748\_08, May 2020

Part: 29813





# SCHEDULE-10/40

# Schedule-10®/Schedule-40®

## Fully Listed and FM Approved Sprinkler Pipe

When you specify Schedule-10/Schedule-40 sprinkler pipe you get a UL listed and FM approved product. Although these products do not require separate approvals, Schedule-10/Schedule-40 gives you the extra quality assurance you demand. Our Sch-10 (1¼"– 8") pipe and Sch-40 (1"– 2½") pipe have passed the same thorough lab testing as our other listed pipe products, and receive periodic mill inspections from both UL and FM agents to ensure consistent quality.

### Galvanized Pipe

Schedule-10/Schedule-40 product can be "hot-dip" galvanized to meet FM requirements for dry systems in accordance with the zinc coating specifications of ASTM A-123.

### Superior Coating

Our advanced formula mill coating offers a clean, durable surface. It is also paint-ready for custom color applications without special preparation.

The internal surface of all black Allied Tube & Conduit Fire Sprinkler pipe products up to 4.5000" in diameter is coated with our new Antibacterial Formula, "ABF". In scientific laboratory test, ABS proved to have superior resistance to microbial colonization of pipe walls, thereby delaying or possibly preventing the onset of Microbiologically Influenced corrosion (MIC) when the First Sprinkler System is first installed.

### American Made

Meets "Buy American" requirement and is available through distributors in the USA, Canada and Mexico.

### Specifications & Approvals

Schedule-10/Schedule-40 pipe are in compliance with the following:

ASTM A-135, and NFPA 13. Both pipe products have a working pressure rating of 300 psi maximum and also meet the stringent requirement for the following tests:

- Welded Outlets
- Hydrostatic Pressure
- Side Wall Rupture
- Vibration Test

### Sch-40 Specifications

NPS In; mm	Nominal I.D. In; mm	Wt. Lbs/Ft; Kg/m	Wt. (H2O Filled) Lbs/Ft; Kg/m	Pcs/ Lift	Wt/Lift (21') Lbs; Kg	Wt/Lift (24') Lbs; Kg	Wt/Lift (25') Lbs; Kg
1"	1.049	1.680	2.05	70	2,470	2,822	2,940
25	26.6	2.5	3.05	70	1,120	1,280	1,334
1¼"	1.380	2.270	2.93	51	2,431	2,778	2,894
32	35.1	4.36	4.36	51	1,103	1,260	1,313
1½"	1.610	2.720	3.61	44	2,513	2,872	2,992
40	40.9	4.0	5.37	44	1,140	1,303	1,357
2"	2.067	3.650	5.13	30	2,300	2,628	2,738
50	52.5	5.4	7.63	30	1,043	1,192	1,242
2½"	2.469	5.790	7.86	19	2,310	2,640	2,750
65	62.7	8.6	11.73	19	1,048	1,197	1,247

### Sch-10 Specifications

NPS In; mm	Nominal I.D. In; mm	Wt. Lbs/Ft; Kg/m	Wt. (H2O Filled) Lbs/Ft; Kg/m	Pcs/ Lift	Wt/Lift (21') Lbs; Kg	Wt/Lift (24') Lbs; Kg	Wt/Lift (25') Lbs; Kg
1"	1.097	1.400	1.81	91	2,675	3,053	3,185
25	27.9	2.1	2.70	91	1,213	1,385	1,445
1¼"	1.442	1.810	2.52	61	2,319	2,664	2,760
32	36.6	2.7	3.75	61	1,052	1,208	1,252
1½"	1.682	2.080	3.04	61	2,664	3,045	3,172
40	42.7	3.1	4.52	61	1,208	1,381	1,439
2"	2.157	2.640	4.22	37	2,051	2,344	2,442
50	54.8	3.9	6.28	37	930	1,063	1,108
2½"	2.635	3.530	5.89	30	2,224	2,542	2,648
65	66.9	5.3	8.77	30	1,009	1,153	1,201
3"	3.260	4.330	7.94	19	1,728	1,975	2,057
80	82.8	6.4	11.82	19	784	896	933
4"	4.260	5.610	11.78	19	2,238	2,558	2,665
90	108.2	8.3	17.53	19	1,015	1,160	1,209
5"	5.295	7.77	17.33	10	1,632	1,865	1,943
125	134.5	11.56	25.80	10	740	846	881
6"	6.357	9.290	23.03	10	1,951	2,230	2,322
150	161.5	13.8	34.27	10	885	1,012	1,053
8"	8.249	16.490	40.15	7	2,424	2,770	2,885
200	209.5	24.5	59.75	7	1,100	1,256	1,309



Listed



Approved



Listed

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June 2012

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# Outlet Fittings for Fire Protection

B U I L D I N G   C O N N E C T I O N S   T H A T   L A S T

# BUILDING CONNECTIONS THAT LAST



For over 150 years, Anvil has worked diligently to build a strong, vibrant tradition of making connections — pipe to pipe and people to people.

We pride ourselves in providing the finest-quality pipe products and services with integrity and dedication to superior customer service at all levels.

We provide expertise and product solutions for a wide range of applications, from plumbing, mechanical, HVAC, industrial and fire protection to mining, oil and gas. Our comprehensive line of products includes: grooved pipe couplings, grooved and plain-end fittings, valves, cast and malleable iron fittings, forged steel fittings, steel pipe nipples and couplings, pipe hangers and supports, channel and strut fittings, mining and oil field fittings, along with much more.

As an additional benefit to our customers, Anvil offers a complete and comprehensive Design Services Analysis for mechanical equipment rooms, to help you determine the most effective and cost-efficient piping solutions for your pipe system.

At Anvil, we believe that responsive and accessible customer support is what makes the difference between simply delivering products — and delivering solutions.



## Weld-Miser™ Tee-Let®

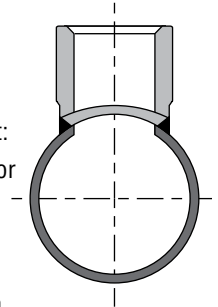
### Welding Outlet Fittings

### Unified Design™ Series

Merit's Unified Design Series carries all important design considerations into its entire line of welding branch outlet fittings.

Merit® Weld-Miser™ Tee-Lets® are designed and Manufactured to reduce the amount of weld required to install the Tee-Lets on thin wall or proprietary flow pipe. Typically only one weld-pass completes the installation. Merit Tee-Lets install with less weld volume than any other brand of welding outlet fittings for fire sprinkler applications. To accomplish this:

- The contoured end of the fittings employs a reduced outside diameter. Two major advantages are immediately apparent:
- The thinner wall on the contoured end permits welding temperatures to be matched to the thickness of the branch line or main thereby insuring complete penetration without cold welds, weld roll-off, burn-through or excessive distortion.
- On smaller sizes a heavier section is maintained on the threaded end of the fitting. This protects the threads from damage during shipping and handling prior to installation as well as from weld distortion.
- Each outlet size 1½" and larger, whether male or female threaded, cut grooved or beveled requires the same hole size in the header pipe. This simplifies the installation process.



### General Specifications

- Tee-Let welding outlet fittings are manufactured from highly weldable steel which conforms to the chemical and physical requirements of ASTM A-53, Grades A or B, Type E. Ease of installation is assured when automatic welding equipment is used to install Merit Tee-Lets.
- Threads are cut in accordance with the requirements of ANSI B1.20.1, national standard for tapered pipe threads, or ISO-7-1 threads are available.
- Tee-Let threaded and grooved welding outlet fittings are UL/ULC Listed and FM Approved for use in the fire sprinkler systems installed in accordance with the requirements of NFPA Bulletin 13. They are rated for 300 PSI operation in fire sprinkler systems, and higher pressures in other non-critical piping systems.
- Tee-Lets are offered in a wide variety of header sizes. The consolidated header sizes shown in the following charts allow the fittings to be installed on more than one header size, permitting the first size listed to fit the header perfectly, while a small gap along the longitudinal center line of the header will appear for the second size listed.
- Merit® Weld-Miser™ Tee-Lets® are identified by a lot number that provides full traceability per ISO 9000 specifications.

### For Your Piping Systems Specify Weld-Miser™ Tee-Let®

Branch Outlet Fittings shall be Merit Weld-Miser Tee-Let, Lightweight forged steel, employing low weld volume profile to provide for full penetration welds with minimum burn through and pipe distortion on Schedule 5 thru 10, proprietary thin wall, and standard wall pipe. Threads are to be ANSI B1.20.1, or ISO-7-1, and the bore of the fittings calculated to improve flow. Welding outlets to be UL Listed, FM Approved for use conforming to NFPA, Bulletin 13 and pressure rated for 300 PSI maximum.

### How to Order - Use either of the following methods for ordering Merit® Weld-Miser™ Tee-Let®.

#### Method No. 1

Specify quantity desired followed by the part number shown in the "dimensions" chart for the type and size of outlet desired.

#### Method No. 2

Use the following system:

Quantity	Part Number	Quantity	Outlet Size	Header Size	Weight	Type End	Merit Tee-Let	Steel Material
		↓ Always order a few more than actually required for the job.	↓ Column "A" of Chart	↓ Insert size consolidation from Column "B" of chart.	↓ Sch. 10 Standard	↓ A - Female Thread B - Male Thread C - Cut Groove C/R - Roll Groove		





# Weld-Miser™ Tee-Let® Welding Outlet Fittings



For Listings/Approval Details and Limitations,  
visit our website at [www.anvilintl.com](http://www.anvilintl.com) or  
contact an Anvil® Sales Representative.

## For Fire Protection & Other Low Pressure Piping Systems

Merit Weld-Miser™ Tee-Let® Welding Branch Outlet Fittings offer the user a high strength, low cost forged threaded and grooved line of fittings specifically designed and manufactured to be installed on Schedules 5 thru 10, proprietary thin wall flow pipe and standard wall pipe.

Merit Tee-Lets are forged steel welding outlet fittings. The material used in manufacture meets the chemical and physical requirements of ASTM A 53, Grades A or B, Type E, A-135, A-795, Tee-Lets employ a low weld volume design to provide for either a partial or full penetration weld employing a single pass with minimum burn-through and pipe distortion. Weld Miser Tee-Lets are recommended for use on proprietary thin wall, Schedules 5, 10 and 40 pipe. Threads comply with ANSI B1.20.1 or ISO7/1. They are UL Listed and FM Approved for use conforming to the requirements of Bulletin 13 1999 of the National Fire Protection Association. When used in fire sprinkler systems, Tee-Lets are rated for 300 psi. When used in mechanical systems, maximum pressures are calculated using criteria developed for ASME B31 piping code.

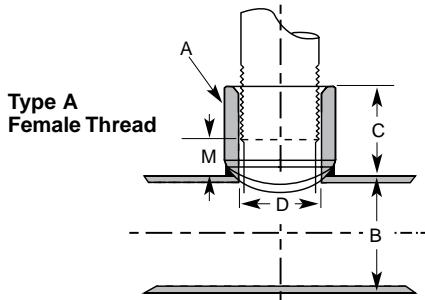
### TEE-LET WELDED OUTLET FITTING (UL VIZU — EX6032, FM APPROVAL GUIDE CHAPTER 1 — PIPE FITTINGS)

Outlet Model	Outlet Pipe Size (Inch)	Header Pipe Size (Inch)	Rated Pressure (psig)
Tee-Let Type A (F-Threaded End)	1/2, 3/4, 1	1/2 - 8 (Sch.10, 40)	300
	1 1/4, 1 1/2, 2, 2 1/2, 3, 4	1/2 - 4 (Sch. 5, DynaFlow)	
	2	4 (EZ-Flow)	
	2, 4	6 (EZ-Flow)	
Tee-Let Type C (Grooved End)	1 1/4 - 8	1 1/4 - 8 (Sch.10, 40)	300
	2 1/2 - 8	1 1/2 - 4 (Sch. 5, DynaFlow)	
Tee-Let Type C/R (Roll Grooved End)	1 1/4 - 6	1 1/4 - 8 (All Schedules)	300

1) Size-on-size (i.e. 2 x 2) Tee-Lets are not FM Approved.

2) FM rated working pressure when welded on Sch. 5 or non-threadable lightwall pipe is 175 psi.

# Weld-Miser™ Tee-Let® Welding Outlet Fittings



WELD-MISER™ TEE-LET® DIMENSIONS & PART NUMBERS						
Part Number	Nominal Outlet A	Nominal Header B	Outlet Length C	Inside Diameter D	Make Up M	Weight Each
NPT (BSPT)	In (mm)	In (mm)	In (mm)	In (mm)	In (mm)	Lb. (kg)
1002002	1/4 x 6 x	1/4 - 8				0.080
1005012	1/2 x 13 x	1 1/4 - 1 1/2	1.063	0.700	0.500	0.171
1005015		1 1/2 - 2	1.063	0.700	0.500	0.171
1005020		2 - 2 1/2	1.063	0.700	0.500	0.171
1005025		2 1/2 - 8	1.063	0.700	0.500	0.169
1007012		1 1/4 - 1 1/2	1.125	0.900	0.500	0.260
1007015	3/4 x 19 x	1 1/2 - 2	1.125	0.900	0.500	0.260
1007020		2 - 2 1/2	1.125	0.900	0.500	0.260
1007025		2 1/2 - 8	1.125	0.900	0.500	0.256
1010012	1 x 25 x	1 1/4 - 1 1/2	1.250	1.145	0.500	0.331
1010015		1 1/2 - 2	1.250	1.145	0.500	0.331
1010020		2 - 2 1/2	1.250	1.145	0.500	0.320
1010025		2 1/2 - 3	1.250	1.145	0.500	0.314
1010030		3 - 4	1.250	1.145	0.500	0.309
1010050	1 1/4 x 32 x	5 - 8	1.250	1.145	0.500	0.291
101012		1 1/4	1.375	1.490	0.500	0.432
101015		1 1/2 - 2	1.375	1.490	0.500	0.421
101020		2 - 2 1/2	1.375	1.490	0.500	0.421
101025		2 1/2 - 3	1.375	1.490	0.500	0.411
101030	1 1/2 x 40 x	3 - 4	1.375	1.490	0.500	0.389
101050		5 - 8	1.375	1.490	0.500	0.389
1015015		1 1/2	1.625	1.610	0.875	0.477
1015020		2	1.625	1.610	0.875	0.477
1015025		2 1/2	1.625	1.610	0.875	0.477
1015030	1 1/2 x 40 x	3 - 4	1.625	1.610	0.875	0.477
1015040		4	1.625	1.610	0.875	0.477
1015050		5 - 8	1.625	1.610	0.875	0.477

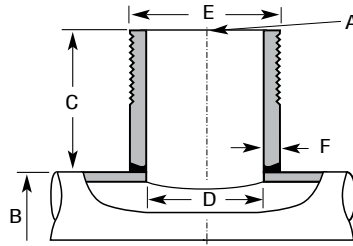
WELD-MISER™ TEE-LET® DIMENSIONS & PART NUMBERS						
Part Number	Nominal Outlet A	Nominal Header B	Outlet Length C	Inside Diameter D	Make Up M	Weight Each
NPT (BSPT)	In (mm)	In (mm)	In (mm)	In (mm)	In (mm)	Lb. (kg)
1020020	2 x 50 x	2	1.750	2.067	0.875	0.857
1120020		50	44.5	52.5	22.2	0.38
1020025		2 1/2	1.750	2.067	0.875	0.829
1120025		65	44.5	52.5	22.2	0.38
1020030		3	1.750	2.067	0.875	0.829
1120030		80	44.5	52.5	22.2	0.39
1020040		4	1.750	2.067	0.875	0.800
1120040		100	44.5	52.5	22.2	0.36
1020050		5	1.750	2.067	0.875	0.743
1120050		125	44.5	52.5	22.2	0.34
1020060	2 1/2 x 65 x	6	1.750	2.067	0.875	0.743
1120060		150	44.5	52.5	22.2	0.34
1020080		8	1.750	2.067	0.875	0.743
1120080		200	44.5	52.5	22.2	0.34
1025025		2 1/2	2.215	2.469	1.125	1.250
1125025		65	54.0	62.7	28.6	0.55
1025030		3	2.215	2.469	1.125	1.200
1125030		80	54.0	62.7	28.6	0.55
1025040		4	2.215	2.469	1.125	1.150
1125040		100	54.0	62.7	28.6	0.52
1025050	3 x 80 x	5	2.215	2.469	1.125	1.150
1125050		125	54.0	62.7	28.6	0.52
1025060		6	2.215	2.469	1.125	1.150
1125060		150	54.0	62.7	28.6	0.52
1025080		8	2.215	2.469	1.125	1.150
1125080		200	54.0	62.7	28.6	0.52
1030030	4 x 100 x	3	2.500	3.068	1.500	1.550
1030040		4	2.500	3.068	1.500	1.450
1030050		5	2.500	3.068	1.500	1.450
1030060		6	2.500	3.068	1.500	1.450
1030080		8	2.500	3.068	1.500	1.450
1040040		4	3.000	4.026	2.000	2.850
1040050		5	3.000	4.026	2.000	2.850
1040060		6	3.000	4.026	2.000	2.800
1040080		8	3.000	4.026	2.000	2.800

Note:  
Part #1002002 is not UL Listed or FM Approved.  
Part #1012012 is not FM Approved.  
All size-on-size (i.e. 2 x 2) Tee-Lets are not FM Approved.

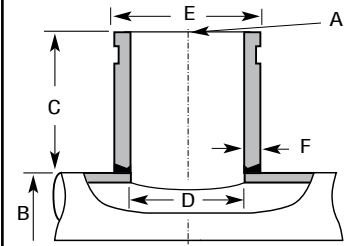


# Weld-Miser™ Tee-Let® Welding Outlet Fittings

**Type B**  
Male Thread  
Standard Weight



**Type C**  
Cut Groove  
Standard Weight

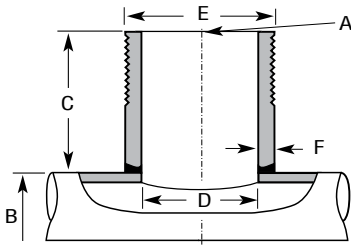


**WELD-MISER™ TEE-LET® - DIMENSIONS (NOMINAL SIZES 1" THRU 2")**

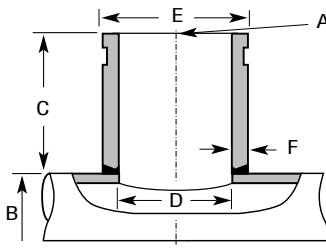
Male Thread Std. Wt.	Cut Groove Std. Wt.	Nominal Outlet A	Nominal Header B	Outlet Length C	Inside Diameter D	Outside Diameter E	Wall Thickness F
<i>NPT (BSPT)</i>	<i>NPT (BSPT)</i>	<i>In. (mm)</i>	<i>In. (mm)</i>	<i>In. (mm)</i>	<i>In. (mm)</i>	<i>In. (mm)</i>	<i>In. (mm)</i>
1310012	2010012	1 x 25 x	1¼ - 1½ 32 - 40	3 80	1.049 26.6	1.315 33.4	0.133 3.4
1310015	2010015		1½ - 2 40 - 50	3 80	1.049 26.6	1.315 33.4	0.133 3.4
1310020	2010020		2 - 2½ 50 - 65	3 80	1.049 26.6	1.315 33.4	0.133 3.4
1310025	2010025		2½ - 4 65 - 100	3 80	1.049 26.6	1.315 33.4	0.133 3.4
1310050	2010050		5 - 8 125 - 200	3 80	1.049 26.6	1.315 33.4	0.133 3.4
1312012	2012012	1¼ x 32 x	1¼ 32	3 80	1.368 34.7	1.660 42.2	0.140 3.6
1312015	2012015		1½ 40	3 80	1.368 34.7	1.660 42.2	0.140 3.6
1312020	2012020		2 - 2½ 50 - 65	3 80	1.368 34.7	1.660 42.2	0.140 3.6
1312025	2012025		3 - 4 80 - 100	3 80	1.368 34.7	1.660 42.2	0.140 3.6
1312050	2012050		5 - 8 125 - 200	3 80	1.368 34.7	1.660 42.2	0.140 3.6
1315015	2015015	1½ x 40 x	1½ 40	3 80	1.610 40.9	1.900 48.3	0.145 3.7
1315020	2015020		2 50	3 80	1.610 40.9	1.900 48.3	0.145 3.7
1315025	2015025		2½ 65	3 80	1.610 40.9	1.900 48.3	0.145 3.7
1315030	2015030		3 - 4 80 - 100	3 80	1.610 40.9	1.900 48.3	0.145 3.7
1315050	2015050		5 - 8 125 - 200	3 80	1.610 40.9	1.900 48.3	0.145 3.7
1320020	2020020	2 x 50 x	2 50	3 80	2.067 52.5	2.375 60.3	0.154 3.9
1320025	2020025		2½ 65	3 80	2.067 52.5	2.375 60.3	0.154 3.9
1320030	2020030		3 80	3 80	2.067 52.5	2.375 60.3	0.154 3.9
1320035	2020035		4 100	3 80	2.067 52.5	2.375 60.3	0.154 3.9
1320050	2020050		5 125	3 80	2.067 52.5	2.375 60.3	0.154 3.9
1320060	2020060		6 150	3 80	2.067 52.5	2.375 60.3	0.154 3.9
1320080	2020080		8 200	3 80	2.067 52.5	2.375 60.3	0.154 3.9

Note: Tee-Lets are manufactured to fit size-on-size, that is the contoured shape on a given Tee-Let is made to fit perfectly on the first listed header size. If installed on the second header size marked on the fitting, a slight gap of approximately 1/32" will appear along the longitudinal centerline of the header. For example, a 1" x 2 - 2½" Tee-Let, is a 1" outlet fitting manufactured to fit perfectly on the 2" header size listed, while leaving a 1/32" gap along the longitudinal centerline of the 2½" size. If a perfect fit is required for a 2½" header pipe, then a 1" x 2½ - 3" Tee-Let would be ordered. Size consolidations are employed to reduce inventory and provide for greater flexibility.

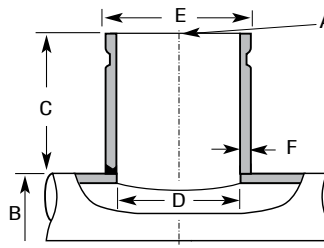
**Type B  
Male Thread  
Standard Weight**



**Type C  
Cut Groove  
Standard Weight**



**Type C/R  
Roll Groove  
Schedule 10**



## Weld-Miser™ Tee-Let®

Welding Outlet Fittings

**WELD-MISER™ TEE-LET® - DIMENSIONS (NOMINAL SIZES 2½" THRU 8")**

Male Thread Std. Wt.	Cut Groove Std. Wt.	Roll Groove Sch. 10	Nominal Outlet A	Nominal Header B	Outlet Length C	Inside Diameter - D		Outside Diameter E	Wall Thickness - F	
						Standard Weight	Schedule 10		Standard Weight	Schedule 10
NPT (ISO-7-1)	NPT (ISO-7-1)	NPT (ISO-7-1)	In.(mm)	In.(mm)	In.(mm)	In.(mm)	In.(mm)	In.(mm)	In.(mm)	In.(mm)
1325025	2025025 2125025	2225025	2½ x 65 x	2½ 65	3 80	2.469 62.7	2.635 67.0	2.875 76.2	0.203 5.0	0.120 3.0
1325030	2025030 2125030	2225030		3 80	3 80	2.469 62.7	2.635 67.0	2.875 76.2	0.203 5.0	0.120 3.0
1325035	2025035 2125035	2225035		4 100	3 80	2.469 62.7	2.635 67.0	2.875 76.2	0.203 5.0	0.120 3.0
1325050	2025050 2125050	2225050		5 125	3 80	2.469 62.7	2.635 67.0	2.875 76.2	0.203 5.0	0.120 3.0
1325060	2025060 2125060	2225060		6 150	3 80	2.469 62.7	2.635 67.0	2.875 76.2	0.203 5.0	0.120 3.0
1325080	2025080 2125080	2225080		8 200	3 80	2.469 62.7	2.635 67.0	2.875 76.2	0.203 5.0	0.120 3.0
1330030	2030030	2230030	3 x 80 x	3 80	3 80	3.068 78.0	3.260 83.0	3.500 88.0	0.216 5.0	0.120 3.0
1330035	2030035	2230035		3½ 85	3 80	3.068 78.0	3.260 83.0	3.500 88.0	0.216 5.0	0.120 3.0
1330040	2030040	2230040		4 100	3 80	3.068 78.0	3.260 83.0	3.500 88.0	0.216 5.0	0.120 3.0
1330050	2030050	2230050		5 125	3 80	3.068 78.0	3.260 83.0	3.500 88.0	0.216 5.0	0.120 3.0
1330060	2030060	2230060		6 150	3 80	3.068 78.0	3.260 83.0	3.500 88.0	0.216 5.0	0.120 3.0
1330080	2030080	2230080		8 200	3 80	3.068 78.0	3.260 83.0	3.500 88.0	0.216 5.0	0.120 3.0
1340040	2040040	2240040	4 x 100 x	4 100	4 100	4.026 102.0	4.260 108.0	4.500 114.0	0.237 6.0	0.120 3.0
1340050	2040050	2240050		5 125	4 100	4.026 102.0	4.260 108.0	4.500 114.0	0.237 6.0	0.120 3.0
1340060	2040060	2240060		6 150	4 100	4.026 102.0	4.260 108.0	4.500 114.0	0.237 6.0	0.120 3.0
1340080	2040080	2240080		8 200	4 100	4.026 102.0	4.260 108.0	4.500 114.0	0.237 6.0	0.120 3.0
—	2050050	—	5 x 125 x	5 125	4 100	5.047 128.2	—	—	—	—
—	2050060	—		6 150	4 100	5.047 128.2	—	—	—	—
—	2050080	—		8 200	4 100	5.047 128.2	—	—	—	—
—	2060060	2260060	6 x 150 x	6 150	4 100	6.065 155.0	6.357 161.5	6.625 168.3	0.280 7.1	0.134 3.0
—	2060080	2260080		8 200	4 100	6.065 155.0	6.357 161.5	6.625 168.3	0.280 7.1	0.134 3.0
—	2080080	—	8 x 200 x	8 200	4 100	7.981 203.0	8.329 212.0	8.625 213.0	0.322 8.0	0.148 3.0

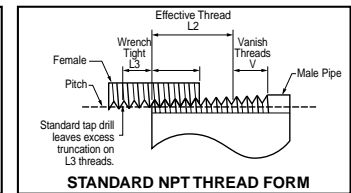
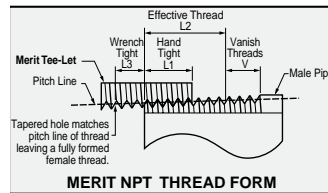
Note: Tee-Lets are manufactured to fit size-on-size, that is the contoured shape on a given Tee-Let is made to fit perfectly on the first listed header size. If installed on the second header size marked on the fitting, a slight gap of approximately ½" will appear along the longitudinal centerline of the header. For example, a 1" x 2 - 2½" Tee-Let, is a 1" outlet fitting manufactured to fit perfectly on the 2" header size listed, while leaving a ½" gap along the longitudinal centerline of the 2½" size. If a perfect fit is required for a 2½" header pipe, then a 1" x 2½ - 3" Tee-Let would be ordered. Size consolidations are employed to reduce inventory and provide for greater flexibility.



# Weld-Miser™ Tee-Let®

## Installation

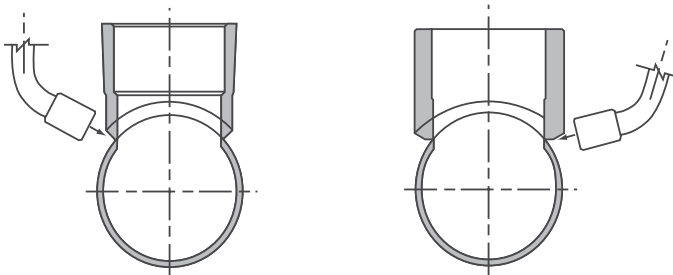
### Welding Outlet Fittings



### Threading Practice

Tee-Let® thread form is consistent with Aeronautical National Form (ANPT) AS71051. The thread is fully formed over both the L-1 hand tight and L-3 wrench tight threads. NPT tapered threads are typically gauged only over the L-1 threads. This makes Tee-Lets more forgiving of field cut threaded pipe that may only marginally conform to the specification. Fewer leaks translate into lower costs.

### Ease of Installation



Merit Manufacturing Tee-Lets are designed to sit higher on the pipe, thereby requiring less weld and eliminating burn through. Tee-Lets sit higher on the header or branch line pipe than competitive fittings. This allows the welding torch to remain in an optimum position for welding. In addition, 1½" and larger Type A female threaded and Type C grooved Tee-Lets require the same hole size for installation. This results in fewer change overs when installed using automatic welders.

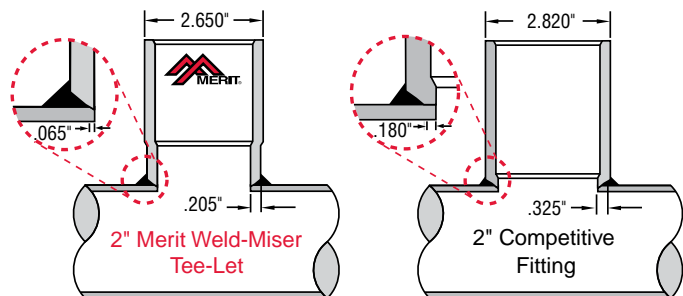
NPT TAPERED PIPE THREADS								
Drop Nipple or Tee-Let Outlet Size	L1 Hand Tight		L3 Wrench Tight		Total L1 - L3 Length		L2 Effective Threads	
In. (mm)	In. (mm)	Threads	In. (mm)	Threads	In. (mm)	Threads	In. (mm)	Threads
½"	0.320	4.48	0.214	3.00	0.534	7.48	0.534	7.47
15	8.1		5.4		13.6		13.6	
¾"	0.339	4.75	0.214	3.00	0.553	7.75	0.546	7.64
20	8.6		5.4		14.0		13.9	
1"	0.400	4.60	0.261	3.00	0.661	7.60	0.683	7.85
25	10.2		6.6		16.8		17.3	
1¼"	0.420	4.83	0.261	3.00	0.681	7.83	0.707	8.13
32	10.7		6.6		17.3		18.0	
1½"	0.420	4.83	0.261	3.00	0.697	7.83	0.724	8.32
40	10.7		6.6		17.7		18.4	
2"	0.436	5.01	0.261	3.00	0.706	8.01	0.757	8.70
50	11.1		6.6		17.9		19.2	
2½"	0.682	5.46	0.250	2.00	0.932	7.46	1.138	9.10
65	17.3		6.4		23.7		28.9	
3"	0.766	6.13	0.250	2.00	1.016	8.13	1.200	9.60
80	19.5		6.4		25.8		30.5	
4"	0.844	6.75	0.250	2.00	1.094	8.75	1.300	10.40
100	21.4		6.4		27.8		33.0	

### Domestic Manufacture

Increasingly, federal, state, municipal, and quasi municipal authorities require domestic content for fire sprinkler systems. Merit® Tee-Lets® meet these requirements. The need to maintain dual inventories; one domestic; one import is eliminated.

### Welding Practice

When measured with respect to linear inches of weld required for installation, Tee-Lets require up to 15% less weld than competitive fittings. This reduces time and savings over time are substantial. The diameter of the contoured end of Type A Tee-Lets has been reduced so that the wall thickness more nearly matches the header or branch line pipe wall thickness. Therefore, current and voltage settings required for welding are set to provide for adequate penetration without burn through and cold shutting. Also, weld volume required for installation is lower for Tee-Lets than most other fittings. Typically, Tee-Lets require one-weld pass for attachment.



### WELDING PRACTICE

Outlet Size	MERIT WELD-MISER TEE-LET				COMPETITIVE FITTING			
	WELD VOLUME*		LINEAR WELDING		WELD VOLUME*		LINEAR WELDING	
In. (mm)	Cross Sec. Area	%less	In. (mm)	%less	Cross Sec. Area	%more	In. (mm)	%less
1"	0.051 sq. in.	12%	2.48	0%	0.058 sq. in.	12%	2.48	0%
25	32.9 sq mm		62.9		37.4 sq mm		62.9	
1¼"	0.032"	48%	2.88	4%	0.063	48%	3.01	4%
32	20.6		73.1		40.6		76.4	
1½"	0.036"	40%	3.12	10%	0.060	40%	3.46	10%
40	23.2		79.2		38.7		87.8	
2"	0.040"	62%	3.77	15%	0.106	62%	4.41	15%
50	25.8		95.7		68.3		112.0	

## Weld-Miser™ Tee-Let® Installation (cont.) Welding Outlet Fittings

### Recommended Installation Procedures

Merit Weld-Miser Tee-Let Welding Outlet Fittings are designed and manufactured to reduce the cost of installation from both the standpoint of labor required and energy consumed. In addition, by following the recommended installation procedures, many of the problems associated with installing welding outlet fittings on standard weight or light weight pipe are eliminated, including burn through and excessive shrinkage resulting in pipe distortion.

### Recommended Hole Sizes

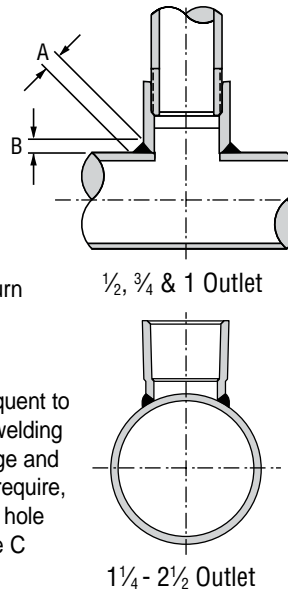
The hole cut in the branch or header pipe can be cut prior or subsequent to attachment of the Tee-Let. One advantage of cutting the hole after welding is that the pipe is left intact during welding thereby reducing shrinkage and possible distortion. If holes are cut prior to welding, as some codes require, then the following hole sizes are recommended. Note that the same hole diameter for a given outlet size is required for both Type A and Type C Tee-Lets 1-1½" larger.

### Recommended Welding Procedures

Merit Weld-Miser Tee-Lets are designed to be installed on standard weight or light weight pipe with one weld pass on Type A outlet sizes from ½" through 2½" inclusive, and on Type C outlet sizes through 4". Moreover, the wall thickness at the weld end of the fitting approximately matches standard weight pipe. Accordingly, heat setting can be made to optimize penetration on both the fitting and the pipe which it is being welded. Aside from reducing the likelihood of burn through and distortion resulting from excessive heat, the amount of weld required for adequate penetration is significantly reduced.

Merit Tee-Lets are manufactured from continuous cast aluminum killed steel with a carbon range of from 0.05 to 0.25. Merit specifies that residuals, such as chrome, nickel and other metals resident in the scrap used for production of the steel be reported and kept to a minimum. On the other hand, certain grades of carbon steel pipe are manufactured from skelp whose chemical composition is not specified. When the metal inert gas shield (MIG) welding process is employed, certain residuals may cause excessive porosity, spatter or lack of penetration. Specifically, gases released during the welding process do not escape before the molten puddle sets up. When porosity or lack of penetration occurs, one approach is to slightly increase the heat in order to give the gases time to escape from the puddle. A flux cored wire can also be used. This wire contains scavengers which allow gases in the molten weld puddle to escape before the weld solidifies. The following recommended settings for welding therefore may need to be adjusted slightly higher if any of the above mentioned adverse conditions exist.

As a general rule, the weld should be only as hot as required to allow the weld to penetrate the materials being welded while concomitantly allowing gases developed in the welding process to escape. Every effort must be made to avoid welding too hot or overheating both the pipe and the Tee-Let. **Excessive heat may cause the wrench tight threads (those in the bottom of the Tee-Let near the weld zone) to distort while also causing the branch pipe to bend.** It should be noted that Merit Tee-Lets have been subjected to exhaustive testing and evaluation, and only negligibly distort when subjected to excessive heat. The threads, on the other hand, may not return to their gauged form after cooling if excessive heat causes them to expand. The following is intended only as a guide, and assumes that the welding equipment is properly calibrated and functioning normally and the operator is qualified.



RECOMMENDED AMOUNT OF WELD		
Outlet Size	A	B
in./mm	in./mm	in./mm
½	¼	⅜
13	7	5
¾	¼	⅜
19	7	5
1	¼	⅜
25	7	5
1¼	¼	⅜
31	7	5
1½	⅜	¼
38	8	7
2	⅜	¼
50	8	7
2½	⅜	¼
63	8	7
3	¾	⅜
75	10	5
4	¾	⅜
100	10	5

RECOMMENDED TEE-LET HOLE SIZES		
Tee-Let Size	Type	Recommended Hole Size
in./mm		in./mm
½	Type A	⅝
13		16
¾	Type A	⅞
19		22
1	Type A	1⅞
25		28
1¼	Type A	1½
31		38
1½	Type C	1⅞
31		35
1¾	Type A or C	1⅞
38		41
2	Type A or C	2
50		50
2½	Type A or C	2⅞
63		61
3	Type A or C	3
75		75
4	Type A or C	4
100		100

Holes may be cut employing mechanical means—including hole sawing, mechanical flame cutting (oxy-acetylene or propane), and air plasma cutting (constricted tungsten arc) machines. Merit offers a simple approach to cutting the hole. Hand-held templates are sized to match your plasma cutter.



# Weld-Miser™ Tee-Let®

## Installation (cont.)

### Welding Outlet Fittings

RECOMMENDED SETTINGS FOR MICROWIRE WELDING PROCESS, CONTINUED ON NEXT PAGE							
Header Size	Pipe Wall Thickness	Tee-Let Types A, B, C	Electrode Size	Welding Current	Arc. Volts	Wire Feed	Travel Speed
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>		<i>AMPS-DC</i>	<i>POS.</i>	<i>IPM</i>	<i>IPM</i>
1¼ - 2 31-50	0.065 2	½ - 2 13-50	0.035	100-130	16-20	210	25-30
		2½ - 4 63-100	0.035	115-150	17-21	270	20-25
	0.109 3	½ - 2 13-50	0.035	110-140	18-22	220	25-30
		2½ - 4 63-100	0.035	120-160	19-22	290	20-25
2½ - 4 63-100	0.083 2.5	½ - 2 13-50	0.035	110-140	17-20	210	20-25
		2½ - 4 63-100	0.035	120-150	17-20	270	20-25
	0.120 3	½ - 2 13-50	0.035	120-160	19-22	290	20-25
		2½ - 4 63-100	0.035	130-160	19-22	240	20-25
5-6 125-150	0.109 3	½ - 2 13-50	0.035	120-150	17-20	210	20-25
		2½ - 4 63-100	0.035	130-150	18-20	270	15-20
	0.134 3.5	½ - 2 13-50	0.035	130-160	19-22	290	20-25
		2½ - 4 63-100	0.035	140-160	20-22	270	15-20
		2½ - 4 63-100	0.045	180-205	20-24	245	27-32
8 200	0.109 3	½ - 2 13-50	0.035	120-150	17-20	240	20-25
		2½ - 4 63-100	0.035	130-150	18-20	260	15-20
		2½ - 4 63-100	0.045	170-220	18-22	290	12-18
	0.148 3.5	½ - 2 13-50	0.035	130-160	19-22	240	20-25
		2½ - 4 63-100	0.035	140-160	20-22	260	15-20
		2½ - 4 63-100	0.045	180-225	20-24	290	12-18

#### Shielding Gas Flow (FOR ALL SIZES) 20-25 CFH

- 1.) Co<sub>2</sub> - Deeper penetration, faster welding, low cost.
- 2.) 25% - Argon, 75% - Co<sub>2</sub>, Recommended for .134 wall and lighter, high welding speeds without melt through, minimum distortion and spatter, good penetration.

Merit assumes no liability for any consequential damages resulting from the improper use of its Tee-Let Welding Outlet Fittings, nor for any recommendations made with respect to installation procedures.



## **Weld-Miser™ Tee-Let®**

### **Installation (cont.)**

#### **Welding Outlet Fittings**

#### **I) WELDING PROCEDURES**

Please refer to [www.Anvilintl.com](http://www.Anvilintl.com) or latest catalog for recommended hole size and welding practice.

#### **II) THREAD MAKE-UP AND INSTALLATION**

A) For use in systems installed in accordance with all applicable standards or codes. (See Section III, Item C)

B) Before starting the job of making nipples or sprinklers into steel threads of the above fittings, insure that no dirt or weld spatter is in the threads and no burn-through damaged the threads. Then count the number of fully developed male threads on the nipple or sprinkler to be installed into the fittings. Compare number of threads counted to the number of required fully developed threads as shown in the thread chart located on the back of this sheet. If thread count is correct, proceed with installation (Step C), if thread count does not match, check nipple or sprinkler for proper thread gage measurement and discard if not to ANSI B1.20.1 / ISO-7R/RC specification.

C) The use of an anaerobic pipe thread sealant is preferred for thread make up when connecting to another pipe fitting or nipple. If attaching a sprinkler head, please refer to the manufacturer's installation instructions and apply pipe thread sealant only to male threads of the sprinkler.

D) If either of the above fails to allow the sprinkler or nipple to make-up to a minimum of full threads, do not over tighten. Instead back the sprinkler or nipple out of the fitting. Clean any debris and/or pipe sealant from both the male and female threads. Gauge both the male threads of the sprinkler or nipple and the female threads of the Tee-Let with ANSI B1.20.1 / ISO-7R/RC. Specification for Tapered Pipe Threads. The same procedure would apply if a leak has been detected.

If within tolerance, reapply the anaerobic pipe sealant or Teflon™ tape and make-on to the required length. Refer to the pipe chart on page 8 for correct make-up lengths. Allow twenty-four hours for setting.

#### **III) GENERAL INFORMATION**

##### **A) APPROVALS AND STANDARDS**

Merit Manufacturing Tee-Lets are listed by the Underwriters Laboratories, Inc. and approved by the Factory Mutual Research Corporation (FM).

##### **B) TECHNICAL DATA**

Merit Manufacturing Tee-Lets are rated for use at a maximum service pressure of 300 psi.

The threads conform to ANSI B1.20.1 / ISO-7R/RC.

##### **C) WARNING**

Merit Manufacturing Tee-Lets described herein must be installed and maintained in compliance with this document as well as the applicable standards of the National Fire Protection Association in addition to the standards for any other authorities having jurisdiction.

**D) DIMENSIONAL DATA** See pages 5 - 8.

##### **E) WARRANTY AND DISCLAIMER**

Seller warrants for one year from the date of shipment Seller's manufactured products to the extent that Seller will replace those having defects in material or workmanship when used for the

purpose and in the manner which Seller recommends. If Seller examination shall disclose to its satisfaction that the products are defective, and an adjustment is required, the amount of such adjustment shall not exceed the net sales price of the defective products only and no allowance will be made for labor or expense of repairing or replacing defective products or workmanship of damage resulting from the same. Seller warrants the products which it sells of other manufacturers to the extent of the warranties of their respective makers. Where engineering design or fabrication work is supplied. Buyer's acceptance of Seller's design or of delivery of work shall relieve Seller of all further obligation, other than expressed in Seller's product warranty. THIS IS SELLER'S SOLE WARRANTY. SELLER MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FOR A PARTICULAR PURPOSE WHICH EXCEED SELLER'S AFORESTATED OBLIGATION ARE HEREBY DISCLAIMED BY SELLER AND EXCLUDED FROM THIS WARRANTY. Seller neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of its engineering designs or products. This warranty shall not apply to any products or parts of products which (a) have been repaired or altered outside of Seller's factory, in any manner; (b) have been subjected to misuse, negligence or accidents; (c) have been used in a manner contrary to Seller's instructions or recommendations. Seller shall not be responsible for design errors due to inaccurate or incomplete information supplied by Buyer or its representatives.

##### **F) SELLER'S LIABILITY:**

Seller will not be liable for any loss, damage, cost of repairs, incidental or consequential damages of any kind, whether based upon warranty (except for the obligation accepted by Seller under "Warranty" above), contract or negligence, arising in connection with the design, manufacture, sale, use or repair of the products or of the engineering designs supplied to Buyer.

##### **G) RETURNS:**

Seller cannot accept return of any products unless its written permission has been first obtained, in which case same will be credited subject to the following (a) All material returned must, on its arrival at Seller's Plant, be found to be in first-class condition; if not, cost of putting in saleable condition will be deducted from credit memoranda; (b) A handling charge deduction of twenty percent (20%) will be made from all credit memoranda issued for material returned; (c) Transportation charges, if not prepaid will be deducted from credit memoranda.

##### **H) RETURN OF MATERIAL**

No Products sold by Merit may be returned without Merit's written consent. All products returned are subject to a handling charge plus freight in both directions and charges for any required reconditioning, unless otherwise specified in writing by Merit.

**I) COMPLETE TERMS AND CONDITIONS CAN BE FOUND AT [www.anvilintl.com](http://www.anvilintl.com)**

**6" x 2"**

## ALUMINUM SPRINKLER IDENTIFICATION SIGNS

All signs .020 Aluminum - Available as generic signs or personalized

<b>AIR CONTROL</b> 50-10-010	<b>COMBINATION STANDPIPE</b> 50-10-088	<b>FIRE DEPARTMENT CONNECTION</b> 50-10-189	<b>IN THIS BUILDING</b> 50-10-250	<b>OPEN SPRINKLER CONTROL</b> 50-10-300	<b>TEST &amp; DRAIN</b> 50-10-355
<b>AIR LINE</b> 50-10-020	<b>CONTROL VALVE</b> 50-10-100	<b>FIRE SPRINKLER ALARM</b> 50-10-220	<b>IN THIS SECTION</b> 50-10-260	<b>OPEN SPRINKLER DRAIN</b> 50-10-310	<b>TEST VALVE</b> 50-10-380
<b>ALARM LINE</b> 50-10-030	<b>DO NOT CLOSE</b> 50-10-129	<b>FIRE SPRINKLER PIPE</b> 50-10-221	<b>LOW POINT DRAIN</b> 50-10-275	<b>OPEN VALVE</b> 50-10-312	<b>WATER MOTOR LINE</b> 50-10-390
<b>ALARM TEST</b> 50-10-040	<b>DRAIN</b> 50-10-130	<b>FIRE SPRINKLER CONTROL VALVE</b> 50-10-224	<b>MAIN CONTROL</b> 50-10-280	<b>SPRINKLER</b> 50-10-317	<b>WET STANDPIPE</b> 50-10-400
<b>ANTI-FREEZE SYSTEM</b> 50-10-045	<b>DRAIN VALVE</b> 50-10-140	<b>FIRE SPRINKLER VALVE</b> 50-10-225	<b>MAIN DRAIN</b> 50-10-290	<b>SPRINKLER VALVE ROOM</b> 50-10-340	<b>WET STANDPIPE SHUTOFF</b> 50-10-420
<b>AUTOMATIC SPRINKLER SHUTOFF</b> 50-10-050	<b>DRY STANDPIPE</b> 50-10-150	<b>FIRE SPRINKLER RISER INSIDE</b> 50-10-228	<b>NORMALLY CLOSED</b> 50-10-293	<b>STANDPIPE SYSTEM</b> 50-10-350	
<b>AUXILIARY DRAIN</b> 50-10-070	<b>ENTIRE SYSTEM</b> 50-10-160	<b>INSPECTORS TEST</b> 50-10-270	<b>OPEN SPRINKLER</b> 50-10-297		

Many other generic signs in stock. Call for details.

The information contained herein is produced in good faith and is believed to be reliable but is for guidance only. ARGCO and its agents cannot assume liability or responsibility for results obtained in the use of its product by persons whose methods are outside or beyond our control. It is the user's responsibility to determine the suitability of any of the products, methods of use, or preparation prior to use, mentioned in our literature. It is the user's responsibility to observe and adapt such precautions as may be advisable for the protection of personnel and property in the handling and use of any of our products.

**FOR MORE INFORMATION CALL ARGCO AT 1-800-854-1015  
OR LOG ONTO WWW.ARGCO.COM**

# Firestop Submittal Package

## Table of Contents

### Firestop Systems

UL System #	Barrier Construction	Description	Rating	Products
W-L-1054	Gypsum Board Wall	Max. 30" steel, cast iron, max. 6" copper, conduit or max. 4" EMT pipe	1 or 2-hour	FS-ONE Intumescent Firestop Sealant
F-A-1029	Concrete Floor	Max. 30" steel, cast iron, max. 6" copper, conduit or max. 4" EMT pipe	2-hour	FS-ONE Intumescent Firestop Sealant
W-J-1067	Concrete/Masonry Wall	Max. 30" steel, cast iron, max. 6" copper, conduit or max. 4" EMT	1 or 2-hour	FS-ONE Intumescent Firestop Sealant

### Product Data Sheet(s) / Material Safety Data Sheet(s) (MSDS)

CFS-DID Firestop Drop-In Device  
FS-ONE Intumescent Firestop Sealant  
Mineral Wool

**Hilti. Outperform. Outlast.**

Hilti, Inc. (U.S.) 1-800-879-8000 [www.us.hilti.com](http://www.us.hilti.com) • en español 1-800-879-5000 • P.O. Box 21148, Tulsa, Oklahoma 74121  
Hilti (Canada) Corp. 1-800-363-4458 [www.hilti.ca](http://www.hilti.ca) • 2360 Meadowpine Blvd., Mississauga, Ontario L5N 6S2



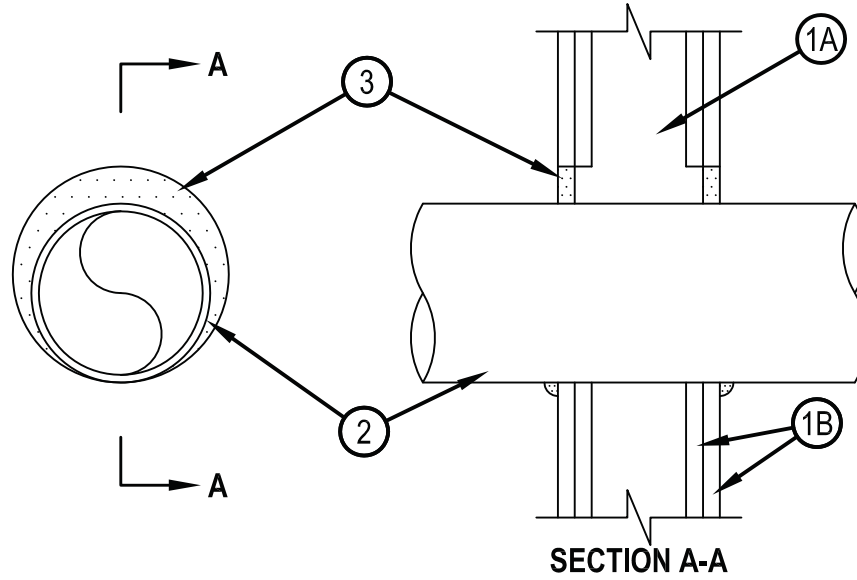
# System No. W-L-1054

F Ratings — 1 and 2 Hr (See Items 1 and 3)

T Rating — 0 Hr

L Rating At Ambient — Less Than 1 CFM/Sq Ft

L Rating At 400 F — 4 CFM/Sq Ft



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides.

B. Gypsum Board\* — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls.

The F Rating of the firestop system is equal to the fire rating of the wall assembly.

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. Steel Pipe — Nom 30 in diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. Iron Pipe — Nom 30 in. diam (or smaller) cast or ductile iron pipe.
- C. Conduit — Nom 4 in diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit.
- D. Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
- E. Copper Pipe — Nom 6 in. diam (or smaller) regular (or heavier) copper pipe.

3. Fill, Void or Cavity Material\* — Sealant — Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant

\*Bearing the UL Classification Mark



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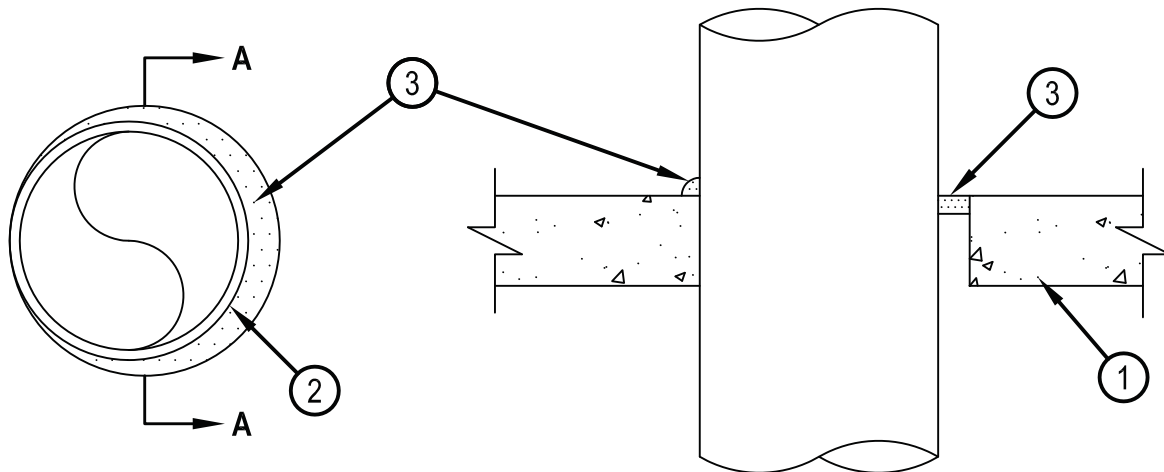


## System No. F-A-1029

F Rating — 2 Hr

T Rating — 0 Hr

FA 1029



**SECTION A-A**

1. Floor Assembly — Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Max diam of opening is 30-7/8 in.
- 1A. Floor Assembly — (Optional — Not Shown) — The fire rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. Concrete — Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete.
  - B. Steel Floor and Form Units\* — Composite or non-composite max 3 in. deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. Through-Penetrant — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The annular space between pipe, conduit or tubing and the periphery of the opening shall be min 0 in. (point contact) to max 7/8 in. The following types of pipe, conduit or tubing may be used:
  - Steel Pipe — Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - Iron Pipe — Nom 30 in. diam (or smaller) cast or ductile iron pipe.
  - Conduit — Nom 6 in. diam (or smaller) rigid steel conduit.
  - Conduit — Nom 4 in. diam (or smaller) steel electrical metallic tubing (EMT).
  - Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
  - Copper Pipe — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. thickness of fill material applied within the annulus, flush with top surface of floor. At point contact, a min 1/4 in. diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant

\*Bearing the UL Classification Mark



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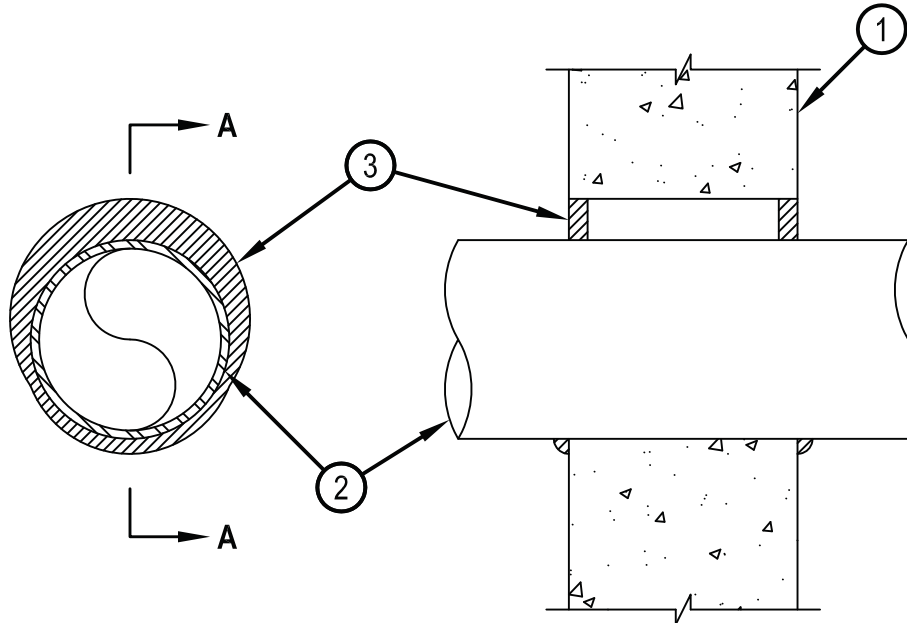
# System No. W-J-1067

F Ratings — 1 and 2 Hr (See Items 1 and 3)

T Rating — 0 Hr

L Rating at Ambient — Less Than 1 CFM/Sq Ft

L Rating At 400 F — 4 CFM/Sq Ft



## SECTION A-A

1. Wall Assembly — Min 3-3/4 in. and 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete for 1 and 2 h rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of opening is 32-1/4 in.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through—Penetrants — One metallic pipe, conduit or tubing to be centered within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tube may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. Steel Pipe — Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. Iron Pipe — Nom 30 in. diam (or smaller) cast or ductile iron pipe.
- C. Conduit — Nom 4 in. diam (or smaller) steel electrical metallic tubing or 6 in. diam (or smaller) steel conduit.
- D. Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
- E. Copper Pipe — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. Fill, Void or Cavity Material\* — Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe-wall interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF  
HILTI INC — FS-One Sealant

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# Cast Iron Threaded Fittings



SMITH-COOPER<sup>®</sup>  
I N T E R N A T I O N A L

## Cast Iron Threaded Fittings

### Specifications

- The  branded Cast Iron threaded fittings are UL Listed and FM Approved at 300 psi
- Rated to 125# WSP
- Casting date on each fitting
- Grey iron castings conform to ASTM A126
- Cast iron fitting dimensions conform to ASME B16.4 Class 125
- NPT threads on fittings conform to ASME B1.20.1
- The  branded Cast Iron threaded fittings and are 100% Air Tested
- Manufacturing facility is ISO 9001:2000 and ISO 14001

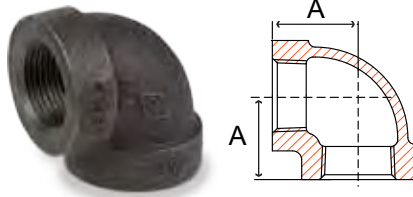




# Cast Iron Fittings - Class 125 UL/FM

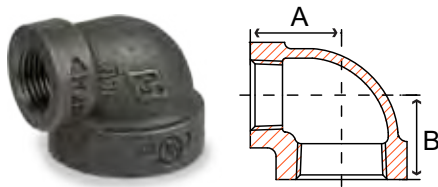


**Fig. 37E 1 – 90° Elbow**



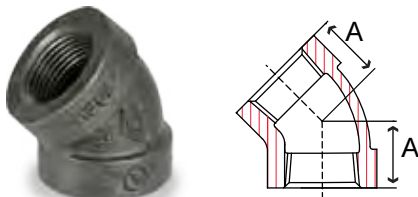
Size IN	Part Number	A IN	Packing		Weight LB
			Inner	Master	
1/2	37E 1004	1.13	90	180	0.3
3/4	37E 1006	1.31	50	100	0.5
1	37E 1010	1.50	35	70	0.8
1-1/4	37E 1012	1.75	20	40	1.3
1-1/2	37E 1014	1.94	15	30	1.7
2	37E 1020	2.25	7	14	2.7
2-1/2	37E 1024	2.70	4	8	4.3

**Fig. 37RE1 – 90° Reducing Elbow**



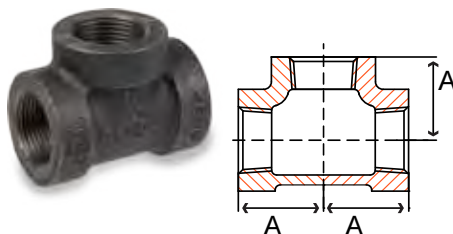
Size IN	Part Number	A IN	B IN	Packing		Weight LB
				Inner	Master	
1 x 1/2	37RE1010004	1.36	1.26	50	100	0.5
1 x 3/4	37RE1010006	1.45	1.38	40	80	0.7
1-1/4 x 1/2	37RE1012004	1.53	1.34	32	64	0.8
1-1/4 x 3/4	37RE1012006	1.63	1.45	28	56	0.9
1-1/4 x 1	37RE1012010	1.67	1.58	25	50	1.0
1-1/2 x 1/2	37RE1014004	1.75	1.52	25	50	1.0
1-1/2 x 3/4	37RE1014006	1.75	1.52	20	40	1.1
1-1/2 x 1	37RE1014010	1.80	1.65	18	36	1.3
1-1/2 x 1-1/4	37RE1014012	1.88	1.82	14	28	1.5
2 x 1/2	37RE1020004	1.97	1.60	15	30	1.4
2 x 3/4	37RE1020006	1.97	1.60	15	30	1.6
2 x 1	37RE1020010	2.02	1.73	12	24	1.8
2 x 1-1/2	37RE1020014	2.16	2.02	10	20	2.3

**Fig. 37F 1 – 45° Elbow**



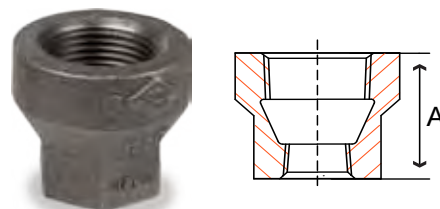
Size IN	Part Number	A IN	Packing		Weight LB
			Inner	Master	
1	37F 1010	1.26	40	80	0.7
1-1/4	37F 1012	1.29	22	44	1.2
1-1/2	37F 1014	1.44	16	32	1.5
2	37F 1020	1.69	8	16	2.6

**Fig. 37T 1 – Tee**



Size IN	Part Number	A IN	Packing		Weight LB
			Inner	Master	
1/2	37T 1004	1.13	60	120	0.4
3/4	37T 1006	1.31	30	60	0.7
1	37T 1010	1.50	20	40	1.1
1-1/4	37T 1012	1.75	12	24	1.8
1-1/2	37T 1014	1.94	8	16	2.4
2	37T 1020	2.25	5	10	3.8

**Fig. 37RC1 – Hex Coupling**

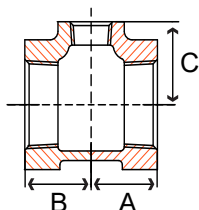


Size IN	Part Number	A IN	Packing		Weight LB
			Inner	Master	
1 x 1/2	37RC1010004	1.69	60	120	0.5
1 x 3/4	37RC1010006	1.69	50	100	0.6
2 x 1 (not hex)	37RC1020010	2.81	16	32	1.5

CAST IRON



# Cast Iron Fittings - Class 125 UL/FM



**Fig. 37RT1 – Reducing Tee**

Size IN	Part Number	A IN	B IN	C IN	Packing		Weight LB
					Inner	Master	
1 x 1/2	37RT1010004	1.26	1.26	1.36	25	50	0.9
1 x 1/2 x 1	37RT1010004010	1.50	1.36	1.50	24	48	0.9
1 x 3/4	37RT1010006	1.38	1.38	1.45	22	44	1.0
1 x 3/4 x 1	37RT1010006010	1.50	1.45	1.50	20	40	1.0
1 x 1-1/4	37RT1010012	1.67	1.67	1.58	15	30	1.4
1-1/4 x 1/2	37RT1012004	1.34	1.34	1.53	18	36	1.3
1-1/4 x 1/2 x 1-1/4	37RT1012004012	1.75	1.53	1.75	18	36	1.4
1-1/4 x 3/4	37RT1012006	1.45	1.45	1.62	15	30	1.4
1-1/4 x 3/4 x 1-1/4	37RT1012006012	1.75	1.62	1.75	15	30	1.5
1-1/4 x 1	37RT1012010	1.58	1.58	1.67	15	30	1.6
1-1/4 x 1 x 1/2	37RT1012010004	1.34	1.26	1.53	20	40	1.1
1-1/4 x 1 x 3/4	37RT1012010006	1.45	1.38	1.63	16	32	1.2
1-1/4 x 1 x 1	37RT1012010010	1.58	1.50	1.69	15	30	1.4
1-1/4 x 1 x 1-1/4	37RT1012010012	1.75	1.69	1.75	12	24	1.6
1-1/4 x 1 x 1-1/2	37RT1012010014	1.88	1.80	1.82	12	24	1.8
1-1/4 x 1-1/2	37RT1012014	1.88	1.88	1.82	10	20	2.0
1-1/2 x 1/2	37RT1014004	1.41	1.41	1.66	12	24	1.6
1-1/2 x 1/2 x 1-1/4	37RT1014004012	1.81	1.56	1.88	12	24	1.7
1-1/2 x 1/2 x 1-1/2	37RT1014004014	1.94	1.66	1.94	12	24	1.8
1-1/2 x 3/4	37RT1014006	1.52	1.52	1.75	12	24	1.8
1-1/2 x 3/4 x 1-1/4	37RT1014006012	1.94	1.66	1.88	12	24	1.7
1-1/2 x 3/4 x 1-1/2	37RT1014006014	1.94	1.75	1.94	12	24	1.9
1-1/2 x 1	37RT1014010	1.65	1.65	1.80	10	20	1.9
1-1/2 x 1 x 1/2	37RT1014010004	1.44	1.25	1.69	18	36	1.3
1-1/2 x 1 x 3/4	37RT1014010006	1.50	1.44	1.75	15	30	1.4
1-1/2 x 1 x 1	37RT1014010010	1.65	1.50	1.80	12	24	1.6
1-1/2 x 1 x 1-1/4	37RT1014010012	1.82	1.67	1.88	10	20	1.8
1-1/2 x 1 x 1-1/2	37RT1014010014	1.94	1.80	1.94	8	16	2.1
1-1/2 x 1-1/4	37RT1014012	1.82	1.82	1.88	8	16	2.2
1-1/2 x 1-1/4 x 1/2	37RT1014012004	1.41	1.34	1.66	15	30	1.5
1-1/2 x 1-1/4 x 3/4	37RT1014012006	1.52	1.45	1.75	12	24	1.6
1-1/2 x 1-1/4 x 1	37RT1014012010	1.65	1.58	1.80	12	24	1.8
1-1/2 x 1-1/4 x 1-1/4	37RT1014012012	1.82	1.75	1.88	10	20	2.1
1-1/2 x 1-1/4 x 1-1/2	37RT1014012014	1.94	1.88	1.94	8	16	2.3
1-1/2 x 1-1/4 x 2	37RT1014012020	2.16	2.10	2.02	6	12	2.7
1-1/2 x 2	37RT1014020	2.16	2.16	2.02	5	10	2.9
2 x 1/2	37RT1020004	1.49	1.49	1.88	8	16	2.6
2 x 3/4	37RT1020006	1.60	1.60	1.97	8	16	2.6
2 x 1	37RT1020010	1.73	1.73	2.02	6	12	2.9
2 x 1 x 2	37RT1020010020	2.25	2.02	2.25	5	10	3.1
2 x 1-1/4	37RT1020012	1.90	1.90	2.10	5	10	3.2
2 x 1-1/4 x 2	37RT1020012020	2.25	2.10	2.25	5	10	3.2
2 x 1-1/2	37RT1020014	2.02	2.02	2.16	5	10	3.3
2 x 1-1/2 x 1/2	37RT1020014004	1.49	1.41	1.88	8	16	2.1
2 x 1-1/2 x 3/4	37RT1020014006	1.60	1.52	1.97	8	16	2.2
2 x 1-1/2 x 1	37RT1020014010	1.73	1.65	2.02	8	16	2.4
2 x 1-1/2 x 1-1/4	37RT1020014012	1.90	1.82	2.10	7	14	2.7
2 x 1-1/2 x 1-1/2	37RT1020014014	2.02	1.94	2.16	7	14	2.9
2 x 1-1/2 x 2	37RT1020014020	2.25	2.16	2.25	5	10	3.4
2 x 2-1/2	37RT1020024	2.60	2.60	2.39	3	6	4.6

## Warranty and Limitations of Liability

SMITH-COOPER INTERNATIONAL (SCI) warrants to its initial purchaser only, that its products which are delivered to this initial purchaser will be of the kind described in the order or price list and will be free of defects in workmanship or material for a period of five years from the date of delivery to our initial purchaser.

Should any failure to conform to this warranty appear within five years after the date of the initial delivery to our initial purchaser, SCI will, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with recognized engineering and piping practices and industry standards, correct such defects by suitable repair or replacement (which alternative shall be at the discretion of SCI) of product at SCI's own expense upon return of the defective part to SCI.

In the event that SCI elects to replace the defective product, SCI shall pay up to \$50 per defective product for total cost of replacement. In the event of multiple claims, such payment shall be no greater than \$1,000 for each installation project.

This warranty applies only during normal use that meets the above referenced conditions of installation and operation and is absolutely void if the product has been damaged after purchase or if it has been misused, repaired, altered or modified in any manner whatsoever. SCI shall not warranty any of its products if any portion of the product including without limitation, any component, gasket, housing or bolt has been modified, altered, remanufactured or replaced in any manner by any customer, user of the product or third party.

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No returns will be allowed unless prior written permission of SCI is first obtained. Buyers shall be responsible for all costs of transportation as well as a restocking charge.

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BOD Item 26, Attach. 3, Page 353

# TOLCO™ fire protection solutions



For over 45 years, the TOLCO™ brand has been synonymous with innovative, labor saving pipe hanger and seismic bracing solutions for the fire protection industry.

## Products & Services

- TOLBrace™ Seismic Bracing Calculation Software
- One of the broadest lines of pipe hangers, strut and seismic bracing in the industry

## Fire Protection Team

Our Fire Protection team actively participates in the fire protection industry, including:

- Membership in the NFPA Technical Committee on Hanging and Bracing of Water Based Automatic Fire Sprinkler Systems
- MSS 403 Standards Committee for Pipe Hanging and Seismic Bracing

## Product Certifications

Many of the products shown in this catalog are certified with the following:

- Listed by Underwriters Laboratories (UL) in U.S. and Canada
- Factory Mutual Engineering Approved (FM)
- Pre-approved by the State of California, Office of Statewide Health, Planning and Development (OSHPD) as shown in our OPM-0052-13 Seismic Restraint Systems Guidelines

This catalog is intended to aid design engineers, specifying engineers, Authorities Having Jurisdiction (AHJs) and others seeking solutions to their pipe support and seismic bracing system installations and design challenges.

For more information on B-Line series pipe hangers and supports, and TOLCO seismic bracing solutions utilized in other applications, such as mechanical or plumbing systems, please refer to our Pipe Hangers & Supports and Strut Systems catalogs, and the State of California OSHPD Pre-Approved Seismic Restraint Systems Guidelines OPM-0052-13. These resources and other valuable information can be found online at [www.eaton.com/tolco](http://www.eaton.com/tolco).

For additional support, contact your TOLCO seismic bracing specialist at, [tolcosupport@eaton.com](mailto:tolcosupport@eaton.com)

## WARNING

All hanger products in this catalog should be installed and serviced only as illustrated or described. Do not use them for any purpose other than those described in this catalog. Products that are used for unintended purposes could fail, resulting in severe personal injury or death.

Examples of misapplications which could cause severe personal injury or death include, but are not limited to:

- Using a beam clamp on a beam other than those described in the catalog;
- Using concrete inserts as anchors for pulling pipe up to the required elevation;
- Suspending clevis hangers, one under another, which could result in an accumulative load that is greater than that which the pipe hanger will support.

Eaton B-Line series pipe hanger and support products are manufactured in accordance with industry standards. Our customers should exercise care in using these products properly as to avoid potential damage or injury. Contact us if you have any questions about proper installation and use of the products in this catalog.

## NOTICE

*Eaton reserves the right to change the specifications, materials, equipment, prices or the availability of products at any time without prior notice. While every effort has been made to assure the accuracy of information contained in this catalog at the time of publication, Eaton is not responsible for inaccuracies resulting from undetected errors or omissions.*



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**Highland, Illinois 62249-0326**  
**Phone: 800-851-7415**

[www.eaton.com/pipehangers](http://www.eaton.com/pipehangers)

# Beam Clamps

## B3037 - Z-Purlin Malleable C-Clamp

**Material:** Malleable Iron

**Function:** Designed for attaching a  $\frac{3}{8}$ "-16 hanger rod to the bottom flange of a Z-purlin.

**Approvals:** Underwriters Laboratories Listed (cULus) for up to 4" (100mm) pipe. Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 23 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 23.

**Finish:** Plain or Electro-Galvanized

**Order By:** Figure number and finish.

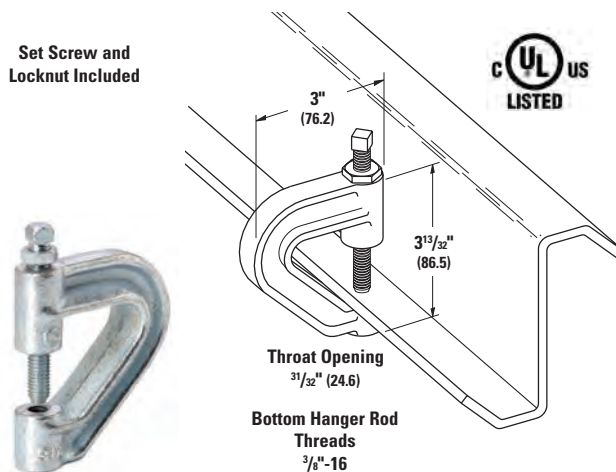
**Weight:** Approx. Wt./100 90 Lbs. (40.8kg)

**Design Load:** 400 Lbs. (1.78kN)

**Setscrew Torque:** Per MSS SP-58 14.2.5

$\frac{3}{8}$ " -16 set screws = 5 ft./lbs. (7 Nm)

Caution should be taken not to over-tighten set screws.



## B3033 - Wide Jaw Reversible C-Clamp

**Size Range:**  $\frac{3}{8}$ "-16 thru  $\frac{3}{4}$ "-10 rod

**Material:** Cast Malleable Steel with hardened cup point set screw and jam nut

**Function:** For attachment to structural shapes requiring wider throat especially under roof with bar joist construction. This clamp may be used with the set screw in the up or down position.

**Approvals:** Underwriters Laboratories Listed (cULus) and Factory Mutual Engineering Approved (FM) for  $\frac{3}{8}$ "-16 and  $\frac{1}{2}$ "-13 rod sizes. Conforms to Federal Specification WW-H-171E Type 19 & A-A-1192A, Type 19 & 23 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 19 & 23. Factory Mutual Engineering Approved only with the setscrew in the down position.

**Finish:** Plain. Contact customer service for alternative finishes and materials.

**Order By:** Figure number, rod size and finish

**Setscrew Torque:** Per MSS SP-58 14.2.5

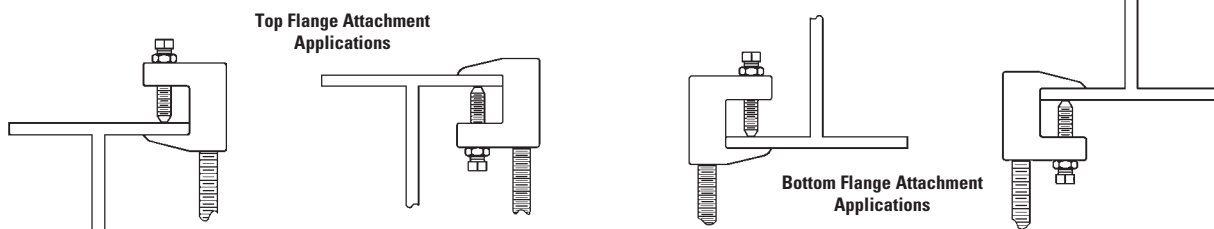
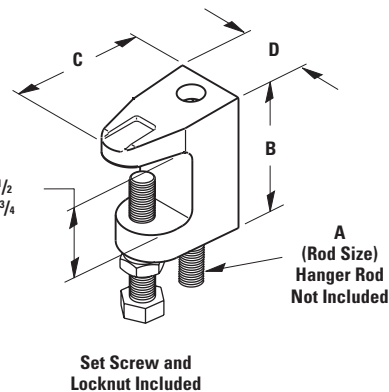
$\frac{3}{8}$ " -16 set screws = 5 ft./lbs. (7 Nm)

$\frac{1}{2}$ " -13 set screws = 11 ft./lbs. (15 Nm)

$\frac{5}{8}$ " -11 set screws = 21 ft./lbs. (28 Nm)

Caution should be taken not to over-tighten set screws.

Designed to meet or exceed requirements of FM DS 2-0.



Part No.	Rod Size A	Set Screw Size	B in. (mm)	C in. (mm)	D in. (mm)	Maximum Iron Pipe Size Per UL in. (mm)	Approx. Wt./100 Lbs. (kg)
B3033- $\frac{3}{8}$	$\frac{3}{8}$ "-16	$\frac{3}{8}$ "-16 x 2"	2 $\frac{1}{4}$ " (57.1)	2" (50.8)	1 $\frac{1}{8}$ " (28.6)	4" (100)	54 (24.5)
B3033- $\frac{1}{2}$	$\frac{1}{2}$ "-13	$\frac{1}{2}$ "-13 x 2 $\frac{1}{2}$ "	2 $\frac{5}{16}$ " (58.7)	2 $\frac{3}{16}$ " (55.6)	1 $\frac{1}{4}$ " (31.7)	8" (200)	51 (23.1)
B3033- $\frac{5}{8}$	$\frac{5}{8}$ "-11	$\frac{1}{2}$ "-13 x 2 $\frac{1}{2}$ "	2 $\frac{5}{8}$ " (66.7)	2 $\frac{1}{2}$ " (63.5)	1 $\frac{3}{8}$ " (34.9)	8" (200)	70 (31.7)
B3033- $\frac{3}{4}$	$\frac{3}{4}$ "-10	$\frac{5}{8}$ "-11 x 2 $\frac{1}{2}$ "	2 $\frac{11}{16}$ " (68.3)	2 $\frac{1}{2}$ " (63.5)	1 $\frac{7}{16}$ " (36.5)	10" (250)	98 (44.4)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## B3034 - C-Clamp

**Size Range:**  $\frac{3}{8}$ "-16 thru  $\frac{3}{4}$ "-10 rod

**Material:** Cast Malleable Steel with hardened cup point set screw and jam nut

**Function:** Recommended for hanging from steel beam where flange thickness does not exceed  $\frac{3}{4}$ " (19.0mm).

**Features:** May be used on top or bottom flange of the beam. Beveled lip allows hanging from top flange where clearance is limited. May be installed with the set screw in the up or down position. Offset design permits unlimited rod adjustment by allowing the rod to be threaded completely through the clamp. The rear window design permits inspection of thread engagement.

**Approvals:** Underwriters Laboratories Listed (cULus) and Factory Mutual Engineering Approved (FM) for  $\frac{3}{8}$ "-16 and  $\frac{1}{2}$ "-13 rod sizes. Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 23 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 19.  $\frac{3}{8}$ "-16 is (cULus) Listed to support up to 4" (100mm) pipe with the set screw in the down position, up to 3" (75mm) pipe with the set screw in the up position.  $\frac{1}{2}$ "-13 is (cULus) Listed to support up to 8" (200mm) pipe with the set screw in the down position, up to 6" (150mm) pipe with the set screw in the up position. Factory Mutual Engineering Approved only with the setscrew in the down position.

**Finish:** Plain. Contact customer service for alternative finishes and materials.

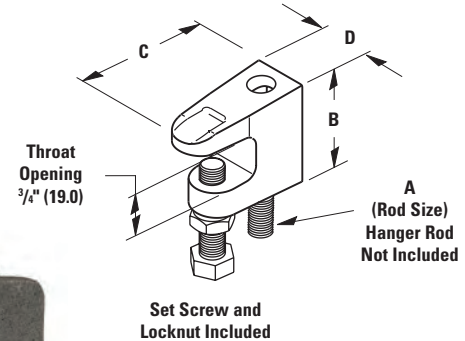
**Order By:** Figure number, rod size and finish

**Setscrew Torque:** Per MSS SP-58 14.2.5

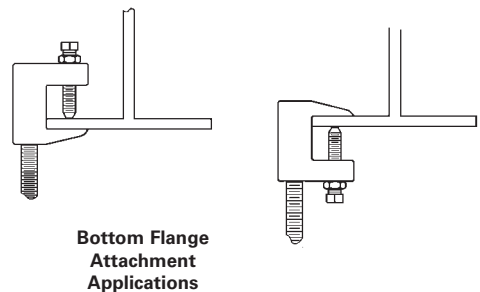
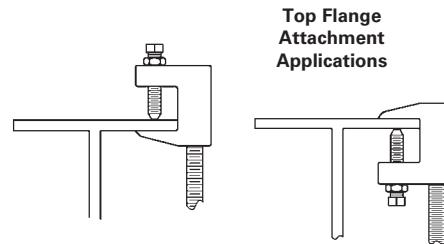
$\frac{3}{8}$ " -16 set screws = 5 ft./lbs. (7 Nm)

$\frac{1}{2}$ " -13 set screws = 11 ft./lbs. (15 Nm)

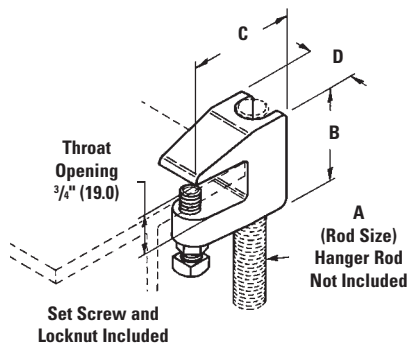
Caution should be taken not to over-tighten set screws.



B3034- $\frac{3}{8}$ " shown.



B3034- $\frac{5}{8}$ " and B3034- $\frac{3}{4}$ " sizes  
Attach only as shown.



Part No.	Rod Size A	Set Screw Size	B		C		D		Maximum Iron Pipe Size Per UL		Approx. Wt./100	
			in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	Lbs.	(kg)
B3034- $\frac{3}{8}$	$\frac{3}{8}$ "-16	$\frac{3}{8}$ "-16 x $1\frac{1}{2}$ "	$1\frac{5}{8}$ "	(41.3)	2"	(50.8)	$\frac{7}{8}$ "	(19.0)	4"	(100)	30	(13.6)
B3034- $\frac{1}{2}$	$\frac{1}{2}$ "-13	$\frac{1}{2}$ "-13 x $1\frac{1}{2}$ "	$1\frac{13}{16}$ "	(46.0)	$2\frac{3}{16}$ "	(55.6)	$1\frac{3}{16}$ "	(30.2)	8"	(200)	47	(21.3)
B3034- $\frac{5}{8}$	$\frac{5}{8}$ "-11	$\frac{1}{2}$ "-13 x 2"	$1\frac{3}{4}$ "	(44.5)	$2\frac{1}{8}$ "	(54.0)	$1\frac{1}{4}$ "	(31.7)	—	—	58	(26.3)
B3034- $\frac{3}{4}$	$\frac{3}{4}$ "-10	$\frac{1}{2}$ "-13 x 2"	2"	(50.8)	$2\frac{1}{4}$ "	(57.2)	$1\frac{1}{4}$ "	(31.7)	—	—	77	(35.0)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## TOLCO Fig. 65 - Reversible Steel C-Type Beam Clamp $\frac{3}{4}$ " (19.0mm) Throat Opening

### Size Range:

Fig. 65 -  $\frac{1}{2}$ "-13 rod sizes, and  $\frac{5}{8}$ "-11 rod sizes

Fig. 65XT -  $\frac{3}{8}$ "-16 rod size (see below)

**Material:** Steel with hardened cup point set screw and jam nut

**Function:** Recommended for hanging from steel beam where flange thickness does not exceed  $\frac{3}{4}$ " (19.0mm).

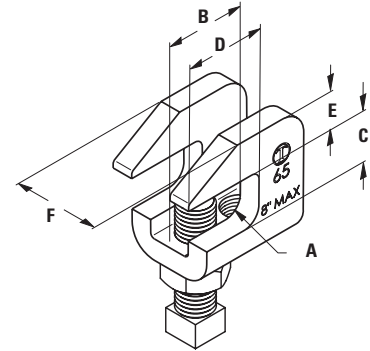
**Features:** All steel construction eliminates structural deficiencies associated with casting type beam clamps. May be used on top or bottom flange of beam. (Beveled lip allows hanging from top flange where clearance is limited.) May be installed with set screw in up or down position. Offset design permits unlimited rod adjustment by allowing the rod to be threaded completely through the clamp. Open design permits inspection of thread engagement.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Exceeds requirements of the National Fire Protection Association (NFPA), pamphlet 13,  $\frac{3}{8}$ "-16 rod will support  $\frac{1}{2}$ " (15mm) thru 4" (100mm) pipe  
 $\frac{1}{2}$ "-13 rod will support thru 8" (200mm) pipe

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number and finish

Fig. 65 Patent #4,570,885



Set Screw and Locknut Included



Part No.	Rod Size A	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)
65- $\frac{1}{2}$	$\frac{1}{2}$ "-13	1 $\frac{1}{2}$ " (38.1)	$\frac{3}{4}$ " (19.0)	1" (25.4)	$\frac{9}{16}$ " (14.3)
65- $\frac{5}{8}$	$\frac{5}{8}$ "-11	1 $\frac{1}{2}$ " (38.1)	$\frac{3}{4}$ " (19.0)	1" (25.4)	$\frac{9}{16}$ " (14.3)

Part No.	F in. (mm)	Approx. Wt./100 Lbs. (kg)
65- $\frac{1}{2}$	1 $\frac{1}{4}$ " (31.7)	55 (24.9)
65- $\frac{5}{8}$	1 $\frac{1}{4}$ " (31.7)	55 (24.9)

## TOLCO Fig. 65XT - Reversible Steel C-Type Beam Clamp $\frac{3}{4}$ " (19.0mm) Throat Opening

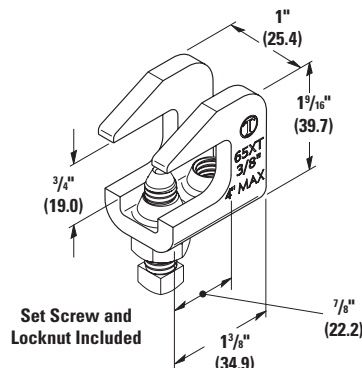
**Feature:** Extruded holes allows for more thread engagement of threaded rod and set screw.

**Finish:** Plain or Electro-Galvanized

**Order By:** Figure number and finish

**Approvals:** Underwriters Laboratories Listed (cULus) and FM Approved (FM) for up to 4" (100mm) pipe.

Designed to meet or exceed requirements of FM DS 2-0 and NFPA 13.



Set Screw and Locknut Included



Part No.	For Rod Size	Approx. Wt/100 Lbs. (kg)
65XT	$\frac{3}{8}$ "-16	28.0 (12.7)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## TOLCO Fig. 66 - Reversible Steel C-Type Beam Clamp 1 1/4" (31.7mm) Throat Opening

**Size Range:** 3/8"-16, 1/2"-13 rod sizes, and 5/8"-11 rod sizes

**Material:** Steel with hardened cup point set screw and jam nut

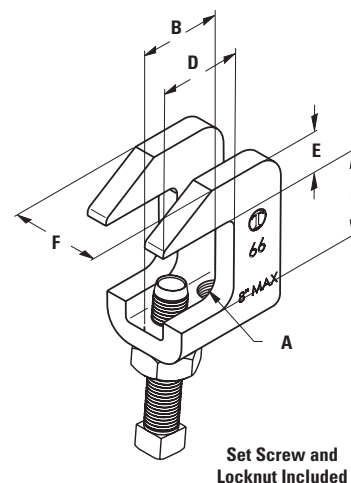
**Function:** Recommended for hanging from steel beam where flange thickness does not exceed 1 1/4" (31.7mm).

**Features:** All steel construction eliminates structural deficiencies associated with casting type beam clamps. May be used on top or bottom flange of beam. (Beveled lip allows hanging from top flange where clearance is limited.) May be installed with set screw in up or down position. Offset design permits unlimited rod adjustment by allowing the rod to be threaded completely through the clamp. Open design permits inspection of thread engagement.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Exceeds requirements of the National Fire Protection Association (NFPA), pamphlet 13, 3/8"-16 rod will support 1/2" (15mm) thru 4" (100mm) pipe  
1/2"-13 rod will support thru 8" (200mm) pipe

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number and finish



Part No.	Rod Size A	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)
66-3/8	3/8"-16	1 3/16" (30.2)	1 1/4" (31.7)	1" (25.4)	7/16" (11.1)
66-1/2	1/2"-13	1 1/2" (38.1)	1 1/4" (31.7)	1" (25.4)	9/16" (14.3)
66-5/8	5/8"-11	1 1/2" (38.1)	1 1/4" (31.7)	1" (25.4)	9/16" (14.3)

Part No.	F in. (mm)	Approx. Wt./100 Lbs. (kg)
66-3/8	1" (25.4)	28 (12.7)
66-1/2	1 1/4" (31.7)	55 (24.9)
66-5/8	1 1/4" (31.7)	55 (24.9)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Beam Clamps

## TOLCO Fig. 67SS - Stainless Steel Reversible C-Type Beam Clamp $\frac{3}{4}$ " (19.0mm) Throat Opening

## TOLCO Fig. 68SS - Stainless Steel Reversible C-Type Beam Clamp Wide Mouth

**Size Range:**  $\frac{3}{8}$ "-16 and  $\frac{1}{2}$ "-13 rod sizes

**Material:** Stainless Steel (Type 316 or 304)

**Function:** Recommended for hanging from steel beams where flange thickness does not exceed  $\frac{3}{4}$ " (19.0mm) for Fig. 67SS or  $\frac{1}{4}$ " (31.7mm) for Fig. 68SS.

**Features:** All steel construction eliminates structural deficiencies associated with casting type beam clamps. May be used on top or bottom flange of beam. May be installed with set screw in up or down position. Offset design permits unlimited rod adjustment by allowing the rod to be threaded completely through the clamp.

**Approvals:** Conforms to Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 19.

$\frac{3}{8}$ "-16 rod will support  $\frac{1}{2}$ " (15mm) thru 4" (100mm) pipe at maximum NFPA 13 spacing

$\frac{1}{2}$ "-13 rod will support thru 8" (200mm) pipe at maximum NFPA 13 spacing

**Order By:** Figure number and stainless steel type.

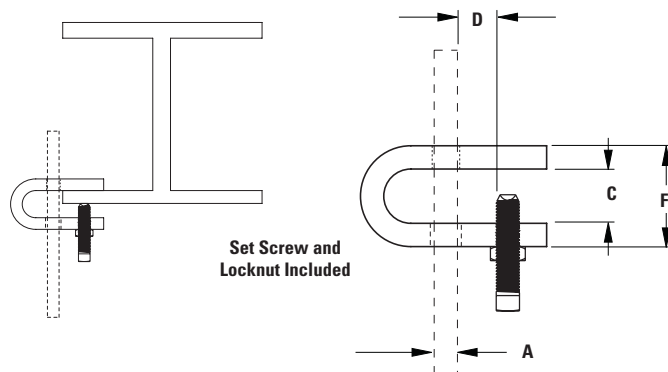
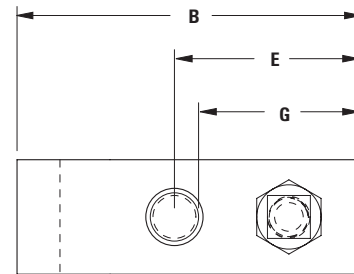


Fig. 67SS

Part No.	Rod Size A	Pipe Size in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)
67SS- $\frac{3}{8}$	$\frac{3}{8}$ "-16	$\frac{1}{2}$ " - 4" (15 - 100)	3" (76.2)	$\frac{7}{8}$ " (22.2)	1" (25.4)	$1\frac{5}{8}$ " (41.3)
67SS- $\frac{1}{2}$	$\frac{1}{2}$ "-13	5" - 8" (125 - 200)	3" (76.2)	$\frac{7}{8}$ " (22.2)	1" (25.4)	$1\frac{5}{8}$ " (41.3)

Part No.	F in. (mm)	G in. (mm)	Approx. Wt./100 Lbs. (kg)
67SS- $\frac{3}{8}$	$1\frac{5}{8}$ " (41.3)	$1\frac{1}{8}$ " (28.6)	84 (38.1)
67SS- $\frac{1}{2}$	$1\frac{5}{8}$ " (41.3)	$1\frac{1}{8}$ " (28.6)	170 (77.1)



Fig. 68SS

Part No.	Rod Size A	Pipe Size in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)
68SS- $\frac{3}{8}$	$\frac{3}{8}$ "-16	$\frac{1}{2}$ " - 4" (15 - 100)	$2\frac{1}{16}$ " (52.4)	$1\frac{1}{8}$ " (28.6)	$\frac{3}{4}$ " (19.0)	$1\frac{1}{4}$ " (31.7)
68SS- $\frac{1}{2}$	$\frac{1}{2}$ "-13	5" - 8" (125 - 200)	$2\frac{1}{4}$ " (57.1)	$1\frac{1}{4}$ " (31.7)	$\frac{13}{16}$ " (20.6)	$1\frac{1}{4}$ " (31.7)

Part No.	F in. (mm)	Approx. Wt./100 Lbs. (kg)
68SS- $\frac{3}{8}$	2" (50.8)	84 (38.1)
68SS- $\frac{1}{2}$	$2\frac{1}{4}$ " (57.1)	170 (77.1)



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## TOLCO Fig. 69 - Beam Clamp Retaining Strap

**Size Range:**  $\frac{3}{8}$ "-16 thru  $\frac{3}{4}$ "-10 rod  
 4" (101.6mm) thru 16" (406.4mm) lengths  
 Note: longer lengths are available consult factory

**Material:** Pre-Galvanized Steel

**Function:** To offer more secure fastening of various types of beam clamps to beam where danger of movement might be expected. NFPA 13 requires the use of retaining straps with all beam clamps installed in earthquake areas. Satisfies requirements of NFPA 13.

**Important Note:** Good installation practice of a retaining strap requires that the strap be held tightly and securely to all component parts of the assembly. Therefore a locking mechanism of some kind, such as a hex nut for the Fig. 69 or the beveled locking slot of the Fig. 69R will provide a more secure reliable installation.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Approved for use with any listed B-Line series or Tolco beam clamp.

**Finish:** Pre-Galvanized

**Order By:** Figure number, length (L), and finish.

**Note:** Minimum return on strap is 1" (25.4mm).  
 Lengths over 16" (406mm) are not UL Listed.

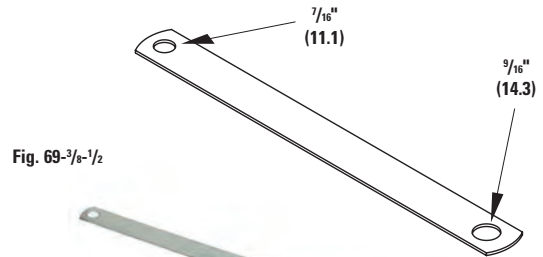


Fig. 69- $\frac{3}{8}$ - $\frac{1}{2}$



Detail A

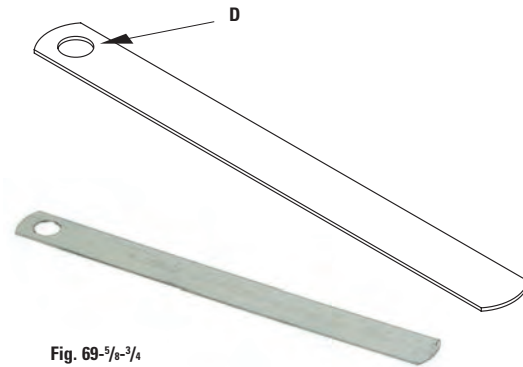
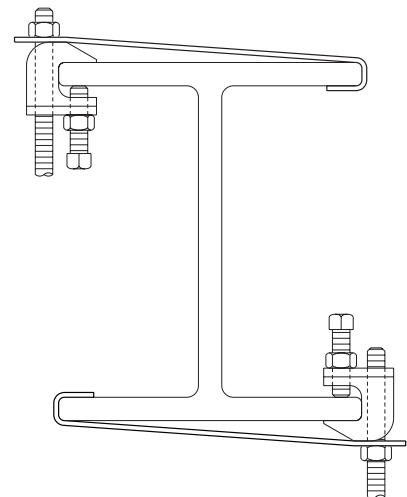


Fig. 69- $\frac{5}{8}$ - $\frac{3}{4}$

Part No.	Hole Dia. D in. (mm)	For Use With	Length
69- $\frac{3}{8}$ - $\frac{1}{2}$ -L	see Detail A	B3033- $\frac{3}{8}$ , B3034- $\frac{3}{8}$ , B3031- $\frac{3}{8}$ , 65- $\frac{3}{8}$ , 65XT- $\frac{3}{8}$ , 66- $\frac{3}{8}$ B3033- $\frac{1}{2}$ , B3034- $\frac{1}{2}$ , 65- $\frac{1}{2}$ , 66- $\frac{1}{2}$	Specify
69- $\frac{5}{8}$ -L	$\frac{11}{16}$ " (17.5)	B3033- $\frac{5}{8}$ , 65- $\frac{5}{8}$ , 66- $\frac{5}{8}$	Specify
69- $\frac{3}{4}$ -L	$\frac{13}{16}$ " (20.6)	B3033- $\frac{3}{4}$	Specify



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Beam Clamps

## TOLCO Fig. 69R - Retrofit Capable Beam Clamp Retaining Strap

**Size Range:**  $\frac{3}{8}$ "-16 &  $\frac{1}{2}$ "-13 rod  
4" (101.6mm) thru 16" (406.4mm) lengths  
Note: longer lengths are available consult factory



**Material:** Pre-Galvanized Steel

**Function:** To offer more secure fastening of various types of beam clamps to beam where danger of movement might be expected. NFPA 13 requires the use of retaining straps with all beam clamps installed in earthquake areas. Satisfies requirements of NFPA 13.

**Features:** Beveled locking slot\* is precisely formed to align with the threaded section of a hanger rod or set screw and engage the unit securely. May be used as shown in Section "A-A" or inverted. Allows easy installation for new construction or retrofit applications.

**Important Note:** Good installation practice of a retaining strap requires that the strap be held tightly and securely to all component parts of the assembly. Therefore the beveled locking slot of the Fig. 69R will provide a secure reliable installation.

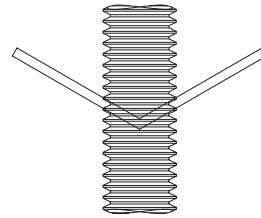
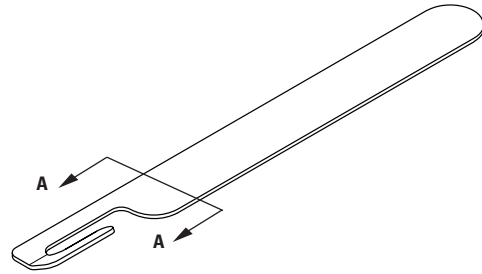
**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Approved for use with any listed B-Line series or Tolco beam clamp.

**Finish:** Pre-Galvanized

**Order By:** Figure number, length, and finish.

**Note:** Minimum return on strap is 1" (25.4mm)

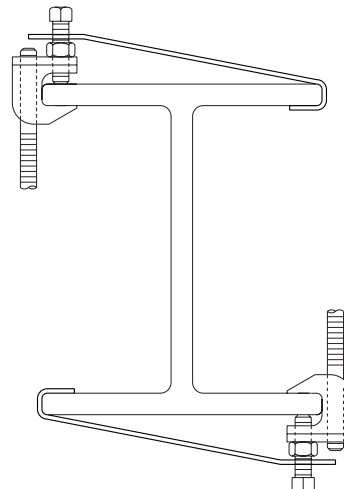
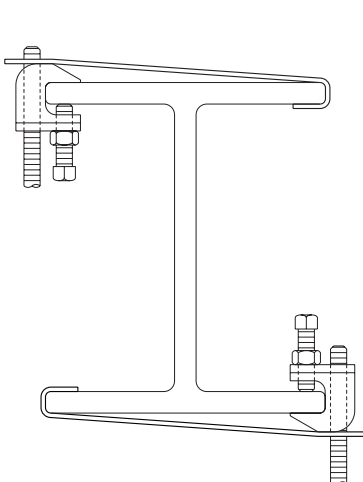
\* Patent #5,947,424



A - A



Part No.	Slot Width in. (mm)	For Use With	Length
69R- $\frac{3}{8}$ -L	$\frac{7}{16}$ " (11.1)	B3033- $\frac{3}{8}$ , B3034- $\frac{3}{8}$ , 65- $\frac{3}{8}$ , 65XT- $\frac{3}{8}$ , 66- $\frac{3}{8}$	Specify
69R- $\frac{1}{2}$ -L	$\frac{9}{16}$ " (14.3)	B3033- $\frac{1}{2}$ , B3034- $\frac{1}{2}$ , 65- $\frac{1}{2}$ , 66- $\frac{1}{2}$	Specify



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## B2400 - Standard Pipe Strap

**Size Range:** 1/2" (15mm) thru 24" (600mm) pipe

**Material:** Steel

**Function:** Designed for supporting pipe runs from strut supports.

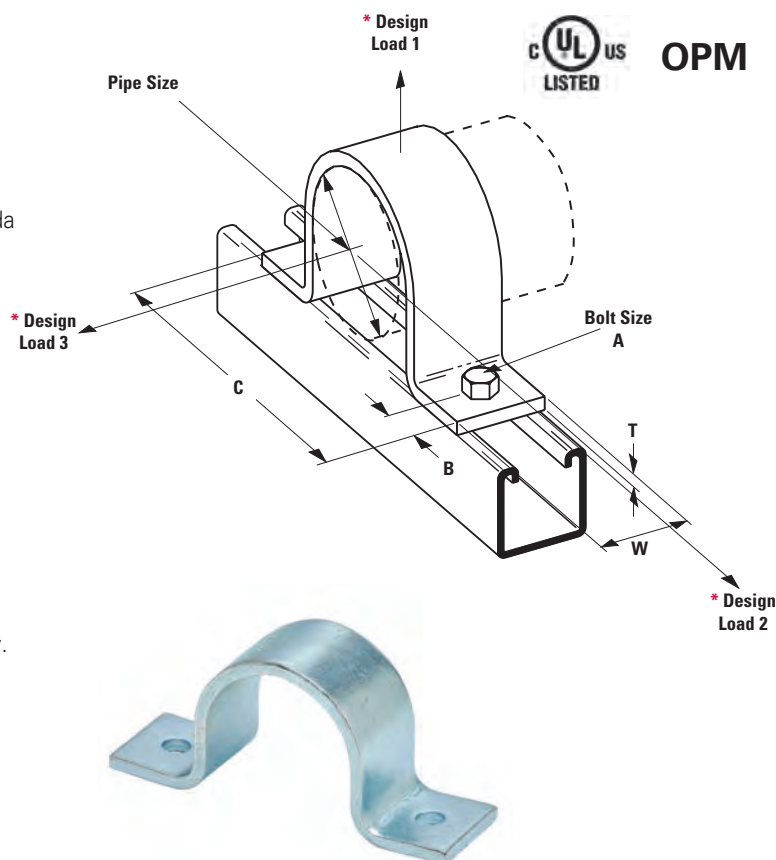
**Approvals:** Underwriters Laboratories Listed (UL), Canada (cUL) for B2400-3/4" thru B2400-8". Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 26 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 26. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines OPM-0052-13

**Finish:** Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number, pipe size and finish

**Note:** Ductile iron sizes available.

Special "B" dimensions available on request, consult factory.



Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	T in. (mm)	W in. (mm)
B2400-1/2	1/2" (15)	5/16" (7.9)	7/16" (11.1)	2 13/16" (71.4)	10 Ga. (3.4)	1 5/8" (41.3)
B2400-3/4	3/4" (20)	5/16" (7.9)	7/16" (11.1)	3" (76.2)	10 Ga. (3.4)	1 5/8" (41.3)
B2400-1	1" (25)	5/16" (7.9)	7/16" (11.1)	3 17/32" (89.7)	10 Ga. (3.4)	1 5/8" (41.3)
B2400-1 1/4	1 1/4" (32)	5/16" (7.9)	7/16" (11.1)	3 3/4" (95.2)	10 Ga. (3.4)	1 5/8" (41.3)
B2400-1 1/2	1 1/2" (40)	5/16" (7.9)	7/16" (11.1)	4 1/16" (103.2)	10 Ga. (3.4)	1 5/8" (41.3)
B2400-2	2" (50)	7/16" (11.1)	1 1/16" (17.4)	5 21/32" (143.6)	1/4" (6.3)	1 5/8" (41.3)
B2400-2 1/2	2 1/2" (65)	7/16" (11.1)	1 1/16" (17.4)	6 5/32" (156.3)	1/4" (6.3)	1 5/8" (41.3)
B2400-3	3" (80)	7/16" (11.1)	1 1/16" (17.4)	6 25/32" (172.2)	1/4" (6.3)	1 5/8" (41.3)
B2400-3 1/2	3 1/2" (90)	7/16" (11.1)	1 1/16" (17.4)	7 3/32" (184.9)	1/4" (6.3)	1 5/8" (41.3)
B2400-4	4" (100)	9/16" (14.3)	1 1/16" (17.4)	7 25/32" (197.6)	1/4" (6.3)	1 5/8" (41.3)
B2400-5	5" (125)	9/16" (14.3)	1 1/16" (17.4)	8 7/8" (225.4)	1/4" (6.3)	1 5/8" (41.3)
B2400-6	6" (150)	9/16" (14.3)	1 1/16" (17.4)	9 15/16" (252.4)	1/4" (6.3)	1 5/8" (41.3)
B2400-8	8" (200)	9/16" (14.3)	1 1/16" (17.4)	11 31/32" (304.0)	1/4" (6.3)	1 5/8" (41.3)

For larger sizes, consult the full line pipe hanger catalog.

\* See OPM-0052-13 for design loads.

TOLCO Fig. 22 - Hanger for CPVC Plastic Pipe & IPS Steel Pipe  
Single Fastener Strap



**Size Range:** 3/4" (20mm) thru 2" (50mm) CPVC pipe

**Material:** Pre-Galvanized Steel

**Function:** Intended to perform as a hanger to support CPVC piping used in automatic fire sprinkler systems. The product acts as a hanger when tab is upward and the fastener screw is in the horizontal position. Fig. 22 can be installed on the top of a beam, but in this situation acts as a guide to the piping which is supported by the beam itself. It is not intended to support CPVC pipe from under a flat horizontal surface, such as a ceiling.

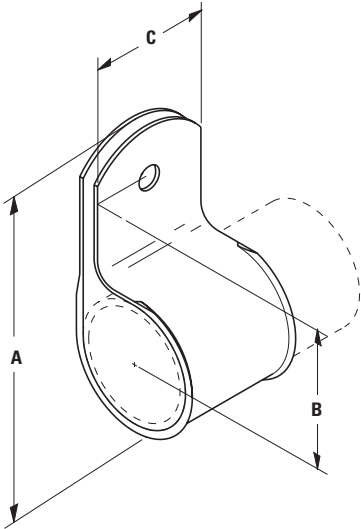
**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) to support fire sprinkler piping. May be installed in wood using fasteners supplied with product, or into minimum 20 gauge (0.9mm) steel using (1) 1/4" x 1" tek type screw. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

**Features:** Fig. 22 incorporates features which protect the pipe and ease installation. The flared edge design protects CPVC pipe from any rough surface. It is easily attached to the building structure using the special UL Listed hex head self threading screw\* furnished with the product. It is recommended that rechargeable electric drills fitted with a hex socket attachment to be used as installation tools. No impact tools (such as a hammer) are allowed. Damage has been known to result from installations using impact type tools. No pre-drilling of a pilot hole in wood is required.

**Finish:** Pre-Galvanized

**Order By:** Figure number and pipe size.

\* Hardened hex head self threading screw is furnished with the product and is the minimum fastener size acceptable.



Part No.	CPVC Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Max. Hanger Spacing Ft. (m)	Fastener Hex Head Size in. (mm)	Approx. Wt./100 Lbs. (kg)
22-3/4	3/4" (20)	27/16" (61.9)	15/16" (33.3)	13/16" (30.2)	5'-6" (1.67)	5/16" (7.9)	9 (4.1)
22-1	1" (25)	211/16" (68.3)	17/16" (36.5)	13/16" (30.2)	6'-0" (1.83)	5/16" (7.9)	9 (4.1)
22-1 1/4	1 1/4" (32)	31/16" (77.8)	15/8" (42.3)	13/16" (30.2)	6'-6" (1.98)	5/16" (7.9)	11 (5.0)
22-1 1/2	1 1/2" (40)	35/16" (84.1)	13/4" (44.4)	13/16" (30.2)	7'-0" (2.13)	5/16" (7.9)	12 (5.4)
22-2	2" (50)	33/4" (95.2)	21/8" (54.6)	13/16" (30.2)	8'-0" (2.44)	5/16" (7.9)	15 (6.8)

Reduced Spacing For IPS Pipe

Part No.	IPS Pipe Size in. (mm)	Max. Hanger Spacing Ft. (m)
22-3/4	3/4" (20)	1'-9" (1.67)
22-1	1" (25)	1'-10" (1.83)
22-1 1/4	1 1/4" (32)	2'-4" (1.98)
22-1 1/2	1 1/2" (40)	2'-9" (2.13)
22-2	2" (50)	3'-6" (2.44)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

**TOLCO Fig. 22L2 - One Hole Hanger/Restrainer for CPVC & Steel Pipe**

**Size Range:** 3/4" (20mm) thru 2" (50mm) CPVC & steel pipe

**Material:** Pre-Galvanized Steel

**Function:** cULus Listed to perform as a hanger and restrainer for CPVC or IPS piping systems. The innovative design also allows for a preferred installation location close to a CPVC fitting without applying damaging compression forces on the pipe which could result in serious Mechanical ESC (Environmental Stress Cracking).

**Approvals:** Underwriters Laboratories Listed in the USA (**UL**) and Canada (**cUL**) to support fire sprinkler piping. Can be installed in wood or into minimum 20 gauge (0.9mm) steel using (1) 1/4" x 1" tek type screw. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

**Installation Note:** Comes in open position for easier installation. Because of multi – structural installation possibilities, specific fastener not included; see notes below for various applications.

**For Concrete Installation** — UL requires a minimum test load of 340 lbs for CPVC hangers and 750 lbs for steel pipe hangers; verify anchors meet or exceed these requirements.

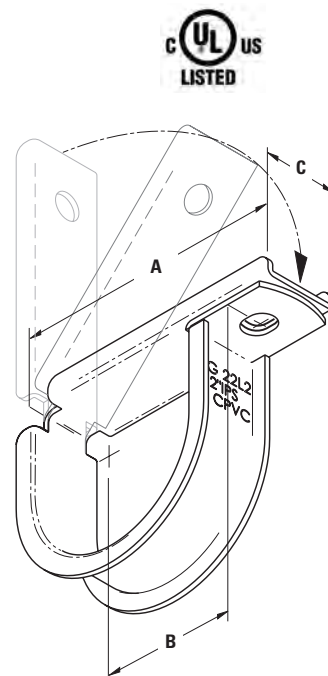
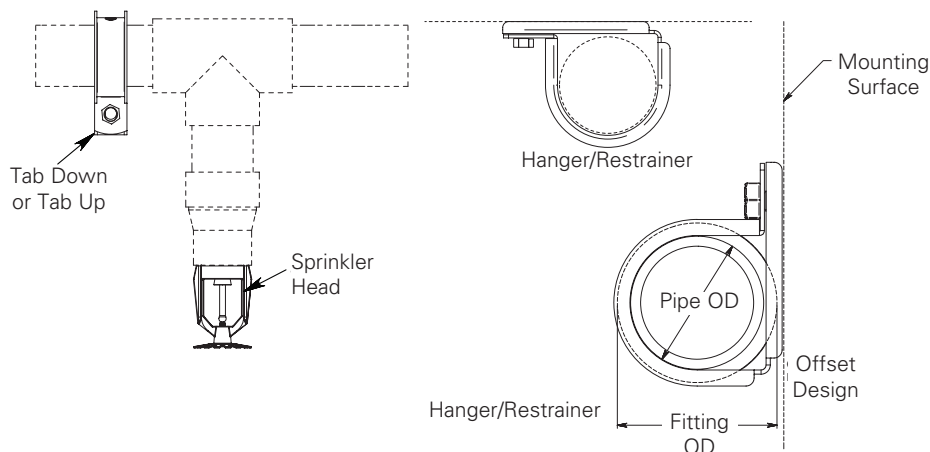
**For Wood Installation** — #14 x 1 1/2" wood screws will support the required load for **cULus**.

**For Steel Installation** — 1/4" x 1" (min. 20ga steel) Tek type screw will support required **UL** load.

**Finish:** Pre-Galvanized

**Order By:** Part number

*Patent Pending*



Part No.	CPVC or Steel Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Max. Hanger Spacing - CPVC Ft. (m)	Max. Hanger Spacing - Steel Ft. (m)	Approx. Wt./100 Lbs. (kg)
22L2-3/4	3/4" (20)	2 3/16" (55.6)	1 5/16" (23.8)	3/4" (19.0)	5 1/2 (1.67)	NA (NA)	9 (4.1)
22L2-1	1" (25)	2 1/2" (63.5)	1 1/8" (28.6)	3/4" (19.0)	6 (1.83)	12 (3.66)	9 (4.1)
22L2-1 1/4	1 1/4" (32)	2 13/16" (71.4)	1 1/4" (31.7)	3/4" (19.0)	6 1/2 (1.98)	12 (3.66)	11 (5.0)
22L2-1 1/2	1 1/2" (40)	3 1/8" (79.4)	1 7/16" (36.5)	3/4" (19.0)	7 (2.13)	15 (4.57)	12 (5.4)
22L2-2	2" (50)	3 9/16" (90.5)	1 5/8" (41.3)	3/4" (19.0)	8 (2.44)	15 (4.57)	15 (6.8)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## TOLCO Fig. 23 - Hanger for CPVC Plastic Pipe & IPS Steel Pipe Double Fastener Strap (B-Line B3182)



**Size Range:** 3/4" (20mm) thru 3" (80mm) CPVC pipe

**Material:** Pre-Galvanized Steel

**Function:** Intended to perform as a hanger to support CPVC piping used in automatic fire sprinkler systems. Fig. 23 can be installed on the top, bottom or side of a beam.

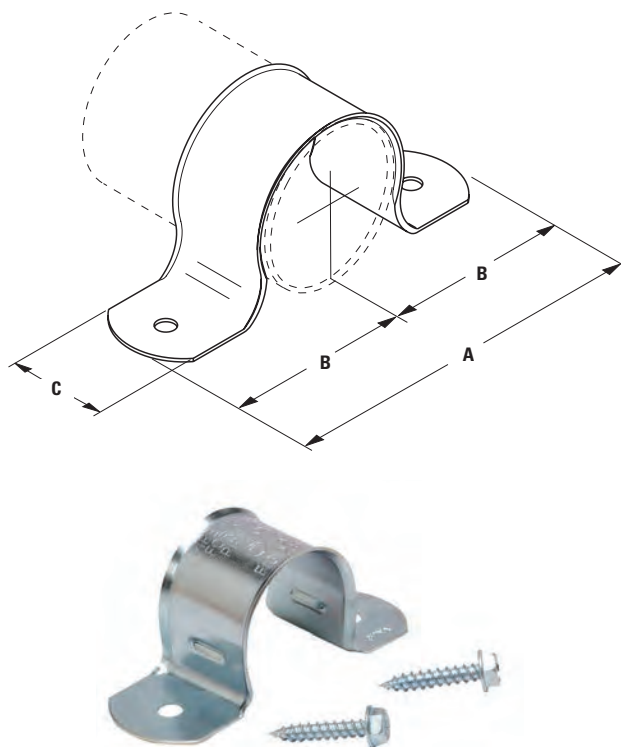
**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) sizes 3/4" (20mm) thru 2" (50mm) to support fire sprinkler piping. May be installed in wood using fasteners supplied with product, or into minimum 20 gauge (0.9mm) steel using (2) 1/4" x 1" tek type screw. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

**Features:** Fig. 23 incorporates features which protect the pipe and ease installation. The flared edge design protects the CPVC pipe from any rough surface. It also incorporates snap restrainers allowing easier and faster installation. Easily attaches to the building structure using the two UL Listed hex head self threading screws\* furnished with the product. It is recommended that rechargeable electric drills fitted with a hex socket attachment be used as installation tools. No impact tools (such as a hammer) are allowed. Damage has been known to result from installations using impact type tools. No pre-drilling of a pilot hole in wood is required.

**Finish:** Pre-Galvanized

**Order By:** Figure number and pipe size

\* Hardened hex head self threading screw is furnished with the product and is the minimum fastener size acceptable.



Part No.	CPVC Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Max. Hanger Spacing Ft. (m)	Fastener Hex Head Size in. (mm)	Approx. Wt./100 Lbs. (kg)
23-3/4	3/4" (20)	3 1/8" (79.4)	1 9/16" (39.7)	1 3/16" (30.2)	5 1/2 (1.67)	5/16" (7.9)	9 (4.1)
23-1	1" (25)	3 3/8" (85.7)	1 11/16" (42.9)	1 3/16" (30.2)	6 (1.83)	5/16" (7.9)	9 (4.1)
23-1 1/4	1 1/4" (32)	4 3/16" (106.4)	2 3/32" (53.1)	1 3/16" (30.2)	6 1/2 (1.98)	5/16" (7.9)	11 (5.0)
23-1 1/2	1 1/2" (40)	4 7/16" (112.7)	2 7/32" (56.3)	1 3/16" (30.2)	7 (2.13)	5/16" (7.9)	12 (5.4)
23-2	2" (50)	4 7/8" (123.8)	2 7/16" (61.9)	1 3/16" (30.2)	8 (2.44)	5/16" (7.9)	15 (6.8)
23-2 1/2	2 1/2" (65)	5 3/8" (136.5)	2 11/16" (68.3)	1 3/16" (30.2)	Consult Factory	5/16" (7.9)	22 (10.0)
23-3	3" (80)	6" (152.4)	3" (76.2)	1 3/16" (30.2)	Consult Factory	5/16" (7.9)	25 (11.3)

### Reduced Spacing For IPS Pipe

Part No.	IPS Pipe Size in. (mm)	Max. Hanger Spacing Ft. (m)
23-3/4	3/4" (20)	1'-9" (1.67)
23-1	1" (25)	1'-10" (1.83)
23-1 1/4	1 1/4" (32)	2'-4" (1.98)
23-1 1/2	1 1/2" (40)	2'-9" (2.13)
23-2	2" (50)	3'-6" (2.44)
23-2 1/2	2 1/2" (65)	Consult Factory
23-3	3" (80)	Consult Factory

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Pipe Supports

## B3092 - Adjustable Pipe Saddle Support with Yoke

**Size Range:** 3/4" (20mm) thru 36" (900mm) pipe

**Material:** Steel with cast iron reducer

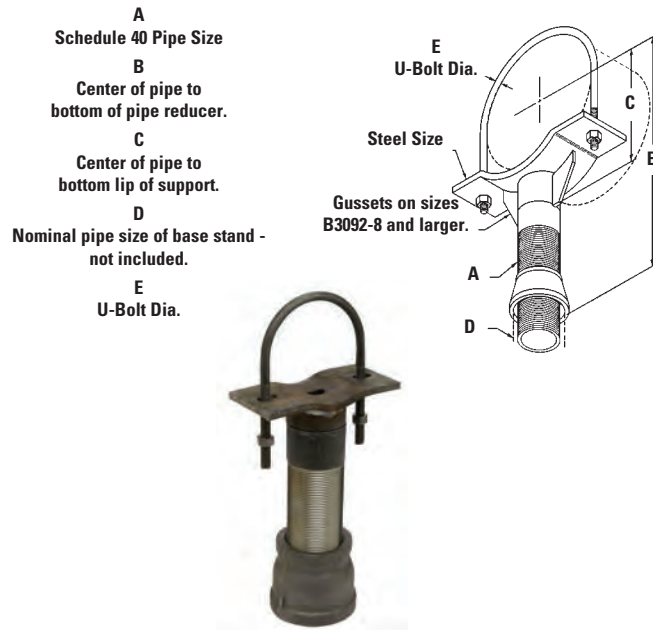
**Function:** Designed to support horizontal pipe from floor stanchion where vertical adjustment is required. U-bolt and hex nuts are provided to hold pipe securely to saddle. To complete floor stanchion, use with B3088T (page 42) threaded pipe stand.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 37.

**Finish:** Plain. Contact customer service for alternative finishes and materials.

**Order By:** Figure number and finish

**Notes:** Order with B3088T for complete stanchion support. 4" (100mm) thru 12" (300mm) fits both steel and ductile iron pipe. For other ductile iron pipe sizes specify B3092DI - size. 3" (80mm) Ductile Iron uses B3092-3 1/2



Part No.	Pipe Size in. (mm)	Maximum O.D. of Pipe in. (mm)	A in. (mm)	Minimum in. (mm)	B in. (mm)	Maximum in. (mm)
B3092-3/4	3/4" (19)	1 3/8" (34.9)	3/4" (19)	5 3/4" (146.0)	10 1/4" (260.3)	
B3092-1	1" (25)	1 3/8" (34.9)	3/4" (19)	5 29/32" (150.0)	10 13/32" (264.3)	
B3092-1 1/4	1 1/4" (32)	1 11/16" (42.9)	3/4" (19)	6 5/64" (154.4)	10 37/64" (268.7)	
B3092-1 1/2	1 1/2" (38)	2" (50.8)	3/4" (19)	6 1/4" (158.7)	10 3/4" (273.0)	
B3092-2	2" (50)	2 7/16" (61.9)	3/4" (19)	6 7/16" (163.5)	10 15/16" (277.8)	
B3092-2 1/2	2 1/2" (65)	2 7/8" (73.0)	1 1/2" (40)	6 7/8" (174.6)	11 3/8" (288.9)	
B3092-3	3" (80)	3 1/2" (88.9)	1 1/2" (40)	7 3/16" (182.6)	11 11/16" (296.9)	
B3092-3 1/2	3 1/2" (90)	4" (101.6)	1 1/2" (40)	7 7/16" (188.9)	11 15/16" (303.2)	
B3092-4	4" (100)	4 7/8" (123.8)	2 1/2" (65)	7 13/16" (198.4)	12 5/16" (312.7)	
B3092-5	5" (125)	5 5/8" (142.9)	2 1/2" (65)	8 9/32" (210.3)	12 25/32" (324.6)	
B3092-6	6" (150)	6 29/32" (175.4)	2 1/2" (65)	9 1/16" (230.2)	13 9/16" (344.5)	
B3092-8	8" (200)	9 1/8" (231.8)	2 1/2" (65)	10 1/2" (266.7)	15" (381.0)	

Part No.	C in. (mm)	D (Not Supplied) in. (mm)	E in. (mm)	Saddle Steel Size in. (mm)	Approx. Wt./100 Lbs. (kg)
B3092-3/4	2" (50.8)	1 1/2" (38)	1/4" (6.4)	1/4" x 1 1/2" (6.3 x 38.1)	247 (112.0)
B3092-1	2 5/32" (54.8)	1 1/2" (38)	1/4" (6.4)	1/4" x 1 1/2" (6.3 x 38.1)	257 (116.6)
B3092-1 1/4	2 1/64" (59.1)	1 1/2" (38)	3/8" (9.5)	1/4" x 2" (6.3 x 50.8)	289 (131.1)
B3092-1 1/2	2 1/2" (63.5)	1 1/2" (38)	3/8" (9.5)	1/4" x 2" (6.3 x 50.8)	306 (138.8)
B3092-2	2 11/16" (68.3)	1 1/2" (38)	3/8" (9.5)	1/4" x 2" (6.3 x 50.8)	326 (147.9)
B3092-2 1/2	3 1/8" (79.4)	2 1/2" (65)	1/2" (12.7)	1/4" x 3" (6.3 x 76.2)	651 (295.3)
B3092-3	3 7/16" (87.3)	2 1/2" (65)	1/2" (12.7)	1/4" x 3" (6.3 x 76.2)	716 (324.8)
B3092-3 1/2	3 11/16" (93.7)	2 1/2" (65)	1/2" (12.7)	1/4" x 3" (6.3 x 76.2)	717 (325.2)
B3092-4	4 1/4" (107.9)	3" (80)	1/2" (12.7)	3/8" x 3 1/2" (9.5 x 88.9)	1286 (583.3)
B3092-5	4 9/16" (115.9)	3" (80)	1/2" (12.7)	3/8" x 3 1/2" (9.5 x 88.9)	1321 (599.2)
B3092-6	5 1/2" (139.7)	3" (80)	5/8" (15.9)	1/2" x 3 1/2" (12.7 x 88.9)	1595 (723.5)
B3092-8	7" (177.8)	3" (80)	5/8" (15.9)	1/2" x 3 1/2" (12.7 x 88.9)	1815 (823.3)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## B3093 - Adjustable Pipe Saddle Support

**Size Range:** 1" (25mm) thru 36" (900mm) pipe

**Material:** Steel with cast iron reducer

**Function:** Designed to support horizontal pipe from floor stanchion where vertical adjustment is required. U-bolt and hex nuts are provided to hold pipe securely to saddle. To complete floor stanchion, use with B3088T (page 42) threaded pipe stand.

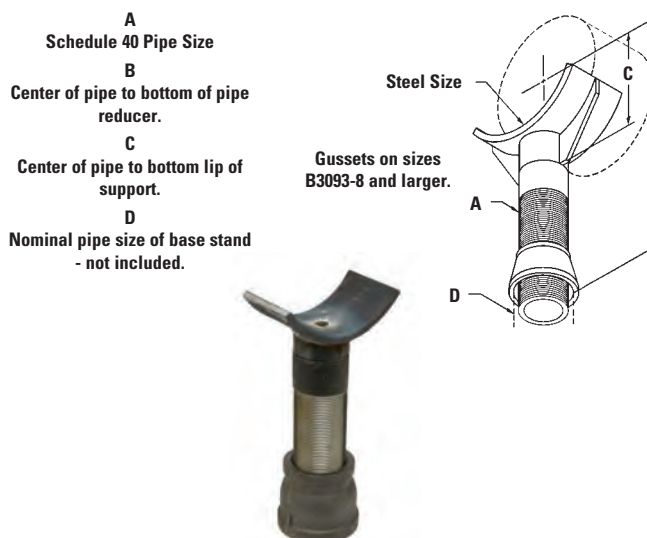
**Approvals:** Conforms to Federal Specification

WW-H-171E & A-A-1192A, Type 38 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 37.

**Finish:** Plain. Contact customer service for alternative finishes and materials.

**Order By:** Figure number and finish

**Note:** Order with B3088T for complete stanchion support.



Part No.	Pipe Size in. (mm)	Maximum O.D. of Pipe in. (mm)	A in. (mm)	Minimum in. (mm)	B in. (mm)	Maximum in. (mm)	C in. (mm)
B3093-1	1" (25)	1 <sup>5</sup> / <sub>16</sub> " (33.3)	<sup>3</sup> / <sub>4</sub> " (20)	5 <sup>2</sup> / <sub>32</sub> " (143.6)	10 <sup>5</sup> / <sub>32</sub> " (257.9)	1 <sup>29</sup> / <sub>32</sub> " (48.4)	
B3093-1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub> " (32)	1 <sup>11</sup> / <sub>16</sub> " (42.9)	<sup>3</sup> / <sub>4</sub> " (20)	5 <sup>53</sup> / <sub>64</sub> " (148.0)	10 <sup>21</sup> / <sub>64</sub> " (226.2)	2 <sup>5</sup> / <sub>64</sub> " (52.8)	
B3093-1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub> " (40)	1 <sup>29</sup> / <sub>32</sub> " (48.4)	<sup>3</sup> / <sub>4</sub> " (20)	6" (152.4)	10 <sup>1</sup> / <sub>2</sub> " (266.7)	2 <sup>1</sup> / <sub>4</sub> " (58.1)	
B3093-2	2" (50)	2 <sup>3</sup> / <sub>8</sub> " (60.3)	<sup>3</sup> / <sub>4</sub> " (20)	6 <sup>3</sup> / <sub>16</sub> " (157.2)	10 <sup>11</sup> / <sub>16</sub> " (271.5)	2 <sup>7</sup> / <sub>16</sub> " (61.9)	
B3093-2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub> " (65)	2 <sup>7</sup> / <sub>8</sub> " (73.0)	1 <sup>1</sup> / <sub>2</sub> " (40)	6 <sup>5</sup> / <sub>16</sub> " (160.3)	10 <sup>13</sup> / <sub>16</sub> " (274.6)	2 <sup>9</sup> / <sub>16</sub> " (65.1)	
B3093-3	3" (80)	3 <sup>1</sup> / <sub>2</sub> " (88.9)	1 <sup>1</sup> / <sub>2</sub> " (40)	6 <sup>5</sup> / <sub>8</sub> " (168.3)	11 <sup>1</sup> / <sub>8</sub> " (282.6)	2 <sup>7</sup> / <sub>8</sub> " (73.0)	
B3093-3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub> " (90)	4" (101.6)	1 <sup>1</sup> / <sub>2</sub> " (40)	6 <sup>7</sup> / <sub>8</sub> " (174.6)	11 <sup>3</sup> / <sub>8</sub> " (288.9)	3 <sup>1</sup> / <sub>8</sub> " (79.4)	
B3093-4	4" (100)	4 <sup>7</sup> / <sub>8</sub> " (123.8)	2 <sup>1</sup> / <sub>2</sub> " (65)	7 <sup>1</sup> / <sub>4</sub> " (184.1)	11 <sup>3</sup> / <sub>4</sub> " (298.4)	3 <sup>1</sup> / <sub>2</sub> " (88.9)	
B3093-5	5" (125)	5 <sup>9</sup> / <sub>16</sub> " (141.3)	2 <sup>1</sup> / <sub>2</sub> " (65)	7 <sup>25</sup> / <sub>32</sub> " (197.6)	12 <sup>9</sup> / <sub>32</sub> " (311.9)	4 <sup>1</sup> / <sub>32</sub> " (102.4)	
B3093-6	6" (150)	7" (177.8)	2 <sup>1</sup> / <sub>2</sub> " (65)	8 <sup>7</sup> / <sub>16</sub> " (214.3)	12 <sup>15</sup> / <sub>16</sub> " (328.6)	4 <sup>11</sup> / <sub>16</sub> " (119.1)	
B3093-8	8" (200)	9 <sup>1</sup> / <sub>8</sub> " (231.8)	2 <sup>1</sup> / <sub>2</sub> " (65)	10 <sup>1</sup> / <sub>4</sub> " (260.3)	14 <sup>3</sup> / <sub>4</sub> " (374.6)	6 <sup>1</sup> / <sub>2</sub> " (165.1)	

Part No.	D (Base Stand Not Supplied) in. (mm)	Saddle Steel Size in. (mm)	Approx. Wt./100 Complete Lbs. (kg)	Saddle Only Lbs. (kg)
B3093-1	1 <sup>1</sup> / <sub>2</sub> " (40)	<sup>1</sup> / <sub>4</sub> " x 1 <sup>3</sup> / <sub>4</sub> " (6.3 x 44.4)	189 (85.7)	49 (22.2)
B3093-1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> " (40)	<sup>1</sup> / <sub>4</sub> " x 1 <sup>3</sup> / <sub>4</sub> " (6.3 x 44.4)	221 (100.2)	81 (36.7)
B3093-1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub> " (40)	<sup>1</sup> / <sub>4</sub> " x 1 <sup>3</sup> / <sub>4</sub> " (6.3 x 44.4)	228 (103.4)	88 (39.9)
B3093-2	1 <sup>1</sup> / <sub>2</sub> " (40)	<sup>1</sup> / <sub>4</sub> " x 1 <sup>3</sup> / <sub>4</sub> " (6.3 x 44.4)	234 (106.1)	94 (42.6)
B3093-2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub> " (65)	<sup>1</sup> / <sub>4</sub> " x 3" (6.3 x 76.2)	567 (257.2)	167 (75.8)
B3093-3	2 <sup>1</sup> / <sub>2</sub> " (65)	<sup>1</sup> / <sub>4</sub> " x 3" (6.3 x 76.2)	576 (261.3)	176 (79.9)
B3093-3 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub> " (65)	<sup>1</sup> / <sub>4</sub> " x 3" (6.3 x 76.2)	588 (266.7)	188 (85.3)
B3093-4	3" (80)	<sup>1</sup> / <sub>4</sub> " x 4" (6.3 x 101.6)	1064 (482.6)	364 (165.1)
B3093-5	3" (80)	<sup>1</sup> / <sub>4</sub> " x 4" (6.3 x 101.6)	1081 (490.3)	381 (172.8)
B3093-6	3" (80)	<sup>3</sup> / <sub>8</sub> " x 4" (9.5 x 101.6)	1234 (559.7)	534 (242.2)
B3093-8	3" (80)	<sup>3</sup> / <sub>8</sub> " x 4" (9.5 x 101.6)	1496 (678.6)	796 (361.1)

Note:

4" (100) thru 12" (300) fits both steel and ductile iron pipe.

For other ductile iron pipe sizes specify B3093DI - size.

3" (80) Ductile Iron uses B3093-3<sup>1</sup>/<sub>2</sub>

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## TOLCO Fig. 825 - bar joist sway brace attachment to steel (FM approved)

**Size Range:** One size accommodates all Fig. 900 Series sway brace attachments.

**Material:** Steel

**Function:** To attach sway bracing and hanger assemblies to steel members.

**Features:** This product's design incorporates a concentric attachment point which is critical to the performance of structural seismic connections. NFPA 13 indicates the importance of concentric loading of connections and fasteners. Permits secure non-friction connection without drilling or welding. Unique design reinforces point of connection to joist. Break off head set bolt design assures verification of proper installation torque (min. 31 ft.-lbs.).

**Approvals:** Approved by Factory Mutual Engineering (FM). Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13. For UL Listed information refer to UL Listed page 54.

**Installation Instructions:** Fig. 825 is the structural attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with a TOLCO™ transitional attachment, "bracing pipe" and a TOLCO "braced pipe" attachment, to form a complete bracing assembly. NFPA 13 or FM guidelines should be followed.

**To Install:** Place the Fig. 825 on the steel beam, tighten the cone point set bolts until heads break off. Attach other TOLCO transitional attachment fitting, Fig. 980, 910, 909, or any other TOLCO approved transitional fitting. Transitional fitting attachment can pivot for adjustment to proper brace angle.

**Finish:** Plain, Electro-Galvanized and HDG

**Approx. Wt./100:** 247.5 Lbs. (112.2kg)

**Order By:** Figure number and finish

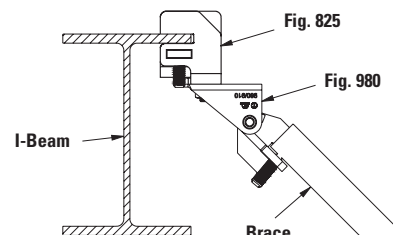
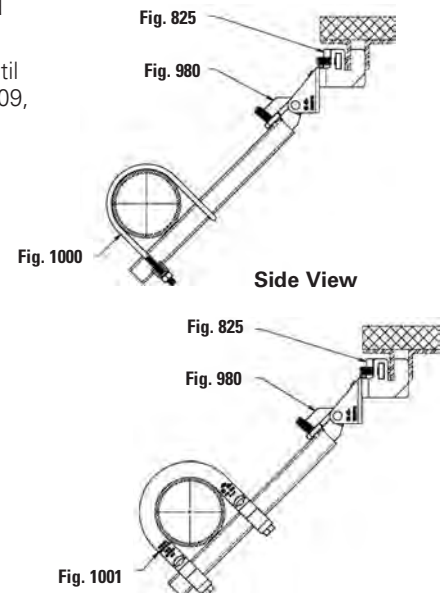
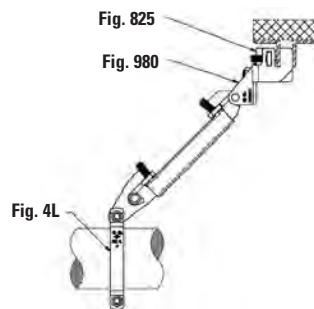
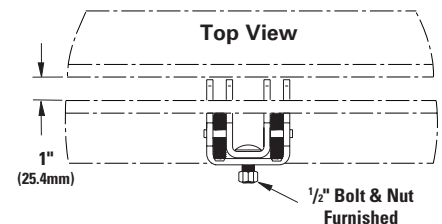
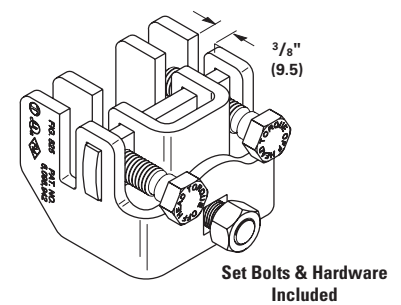
US Patent #6,098,942,  
Canada Patent #2,286,659

Designed to meet or exceed requirements of FM DS 2-8.

Retaining strap not required.

FM Approved design loads are based on ASD design method.

OPM  FM APPROVED



### FM Approved Design Loads

		30°-44°	45°-59°	60°-74°	75°-90°
		lbs. / (kN)	lbs. / (kN)	lbs. / (kN)	lbs. / (kN)
Maximum	Perpendicular to Structural Member	990	1360	1670	1860
3/8" Thick Flange		(4.40)	(6.05)	(7.43)	(8.27)
Maximum	Parallel to Structural Member	460	630	770	860
3/8" Thick Flange		(2.04)	(2.80)	(3.42)	(3.82)

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## TOLCO Fig. 825A - bar joist sway brace attachment to steel

**Size Range:** One size accommodates all Fig. 900 Series sway brace attachments.

**Material:** Steel

**Function:** To attach sway bracing and/or hanger to steel structural members.

**Features:** This product's design incorporates a concentric attachment point which is critical to the performance of structural seismic connections. NFPA 13 indicates the importance of concentric loading of connections and fasteners. Permits secure non-friction connection without drilling or welding. Unique design reinforces point of connection to joist. Break off head bolt design assures verification of proper installation.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). UL listed with Fig. 909, 910, and 980 series attachments and the following brace member type pipes: Sch. 40, KSD 3562. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

**Installation Instructions:** Fig. 825A is the structural attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with a TOLCO™ transitional attachment, "bracing pipe" and a TOLCO "braced pipe" attachment to form a complete bracing assembly. NFPA 13 guidelines should be followed.

**To Install:** Place the Fig. 825A on the steel beam, tighten the cone point set bolts until heads break off. Attach other TOLCO transitional attachment fitting, Fig. 980, 910, 909, or any other TOLCO approved transitional fitting. Transitional fitting attachment can pivot for adjustment to proper brace angle.

**Finish:** Plain or Electro-Galvanized

**Approx. Wt./100:** 154.5 Lbs. (70.1kg)

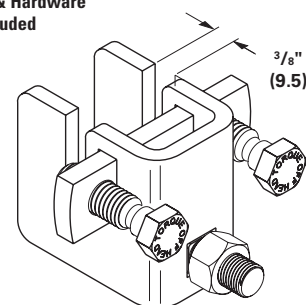
**Order By:** Figure number and finish

Patent #6,098,942

Retaining strap not required.



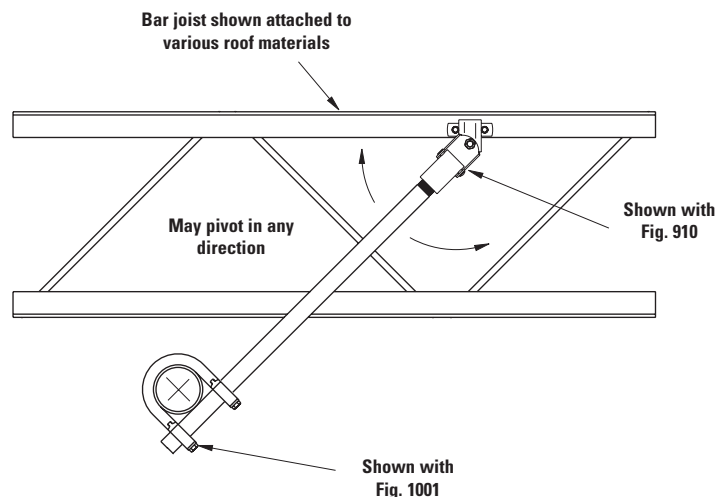
Set Bolts & Hardware Included



### Maximum Design Load

825A 700 lbs. (3.11kN)

**UL Listed as Hanger Attachment for 8" (200mm) Pipe at Maximum Spacing**



Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Updated 5-24-21

## TOLCO Fig. 906 - sway brace multi-fastener adapter

**Material:** Steel



**Application:** Allows sway brace fittings to develop greater load carrying ability by providing multiple fastener attachments for steel and wood. The National Fire Protection (NFPA) provides information on fastener loads to various structures. Refer to NFPA 13 (2016) 9.3.5.9.1.

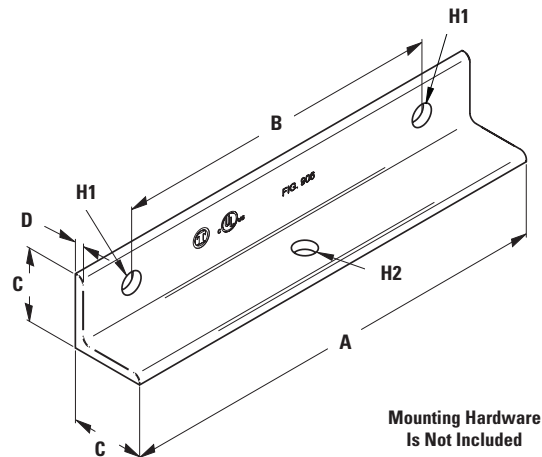
**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) only when used with TOLCO™ Fig. 900 Series Earthquake Brace Attachments. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

**Installation Instructions:** Fig. 906 is a multiple fastener structural attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with a TOLCO transitional attachment, "bracing pipe" and a TOLCO "braced pipe" attachment to form a complete bracing assembly. NFPA 13 guidelines should be followed.

**To Install:** Attach the Fig. 906 to the structural surface as per fastener design guidelines. Attach other TOLCO transitional attachment fitting, Fig. 980, 910, 909, or any other TOLCO approved transitional fitting. Transitional fitting attachment can pivot for adjustment to proper brace angle.

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number and specify dimensions H1 and H2.



Part Number	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	H1	H2	Approx. Wt./100 Lbs. (kg)
906	12" (305.0)	9" (228.6)	2.5" (63.5)	1/4" (6.3)	Specify	Specify	394 (178.7)
906-12	15" (381.0)	12" (304.8)	2.5" (63.5)	1/4" (6.3)	Specify	Specify	494 (224.1)

Load Note: Actual design load determined by anchor and concrete strength, not to exceed the UL Listed maximum load of 1200 lbs (5.33kN).  
Load is for Fig. 906. If combined load of anchors is less, must reduce to anchor maximum capacity.

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## TOLCO Fig. 800 - adjustable sway brace attachment to steel (UL listed)

**Size Range:** 4" (101.6mm) thru 18" (457.2mm) beam width

**Material:** Steel

**Function:** Seismic brace attachment to steel.

**Features:** This product's design incorporates a concentric attachment point which is critical to the performance of structural seismic connections. NFPA 13 indicates the importance of concentric loading of connections and fasteners. Permits secure connection to steel where drilling and/or welding of brace connection could present structural issues.

**Installation Instructions:** Fig. 800 is the structural attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with a TOLCO™ transitional attachment, "bracing pipe" and a TOLCO "braced pipe" attachment to form a complete bracing assembly. NFPA 13 guidelines should be followed.

**To Install:** Place the Fig. 800 on the steel beam, tighten the cone point set bolts on flange until the heads break off. Tighten hex head bolts into clamp body until lock washers are fully flat. Attach other TOLCO transitional attachment fitting, Fig. 980, 910, 909, or any other TOLCO approved transitional fitting. Transitional fitting attachment can pivot for adjustment to proper brace angle.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). UL listed with Fig. 909, 910, 980, 909 series attachments and the following brace member type pipes: Sch. 40, KSD 3562. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

For FM Approval information refer to FM Approved page 59.

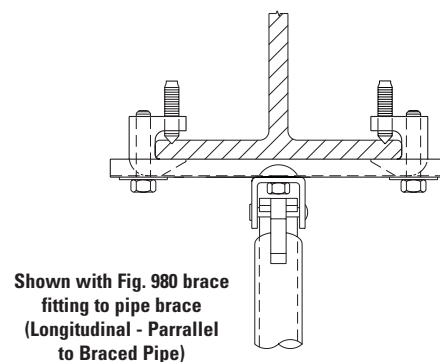
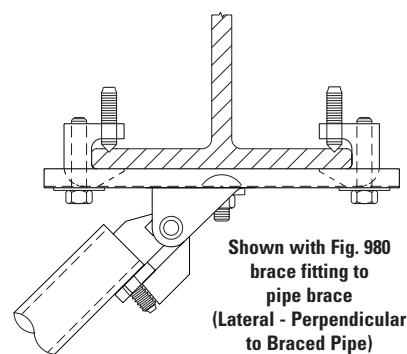
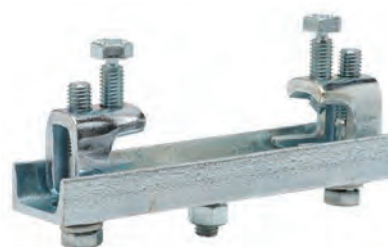
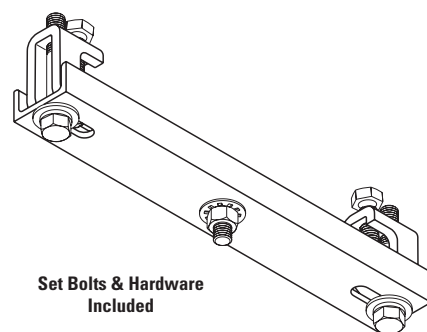
**Finish:** Plain, Electro-Galvanized and Hot Dip Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number, type number and size number.  
Example: FIG. 800 TYPE2X14-16

Type	Fits Beam Flange Thickness in. (mm)
800 TYPE1	Up to 3/4" (Up to 19.0)
800 TYPE2	3/4" to 1 1/4" (19.0 to 31.7)

Fits Flange Width Range			Max.Design Loads (cULus) Along or Across Beam		
Part #	in.	(mm)	Fig. 909 lbs. (kN)	Fig. 910 lbs. (kN)	Fig. 980 lbs. (kN)
800-1	4"-6"	(101.6-152.4)	1270~ (5.65)	1400~ (6.23)	1400~ (6.23)
800-2	6"-8"	(152.4-203.2)			
800-3	8"-10"	(203.2-254.0)			
800-4	10"-12"	(254.0-304.8)	1270~ (5.65)	1300~ (5.78)	1300~ (5.78)
800-5	12"-14"	(304.8-355.6)			
800-6	14"-16"	(355.6-406.4)	900~ (4.00)	900~ (4.00)	900~ (4.00)
800-7	16"-18"	(406.4-457.2)			

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## Fig. 980 - TOLCO Universal swivel sway brace attachment - $\frac{3}{8}$ "-16 to $\frac{3}{4}$ "-10 rods

## Fig. 980H - TOLCO Universal swivel sway brace attachment - $\frac{7}{8}$ "-9 to $1\frac{1}{4}$ "-7

**Size Range:** One size fits bracing pipe 1" (25mm) thru 2" (50mm), B-Line series 12 gauge (2.6mm) channel.

**Material:** Carbon steel

**Function:** Multi-functional attachment to structure or braced pipe fitting.

**Features:** This product's design incorporates a concentric attachment opening which is critical to the performance of structural seismic connections and in accordance with NFPA 13, 2019 Section 18.5.11.5. The Fig. 980 mounts to any surface angle and the break off bolt head assures verification of proper installation.

**Installation:** Fig.980 is the structural or transitional attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO™ "braced pipe" attachment, Fig. 1001, 2002, 3000, 4L or approved attachment to pipe to form a complete bracing assembly. NFPA 13 guidelines should be followed.

**To Install:** Place the Fig. 980 onto the "bracing pipe". Tighten the set bolt until the head breaks off. Attachment can pivot for adjustment to proper brace angle.

**Approvals:** —Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). UL Listed for the following brace member type pipes: Sch. 40, KSD 3562. Ask the factory for additional information as it may vary by product size. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13. For FM Approval information refer to FM Approved page 61.

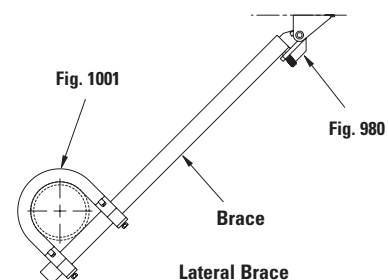
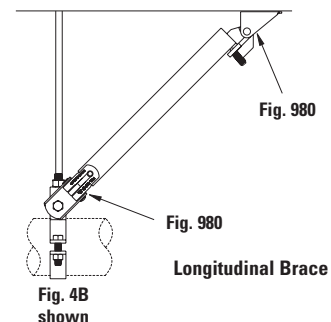
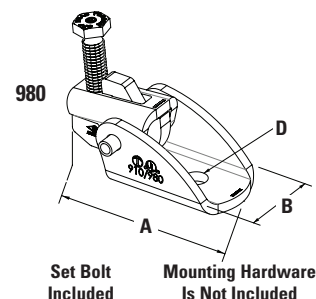
**Note:** Fig. 980 Swivel Attachment and Fig. 1001, 2002, 3000, 4L, or approved attachment to pipe make up a sway brace system of UL Listed attachments and bracing materials which satisfies the requirements of Underwriters Laboratories and the National Fire Protection Association (NFPA)

**Finish:** Plain, Electro-Galvanized or Stainless Steel.

Contact customer service for alternative finishes.

**Order By:** Figure number and finish.

Pat. #6,273,372, Pat. #6,517,030, Pat. #6,953,174,  
Pat. #6,708,930, Pat. #7,191,987, Pat. #7,441,730,  
Pat. #7,669,806



Catalog #	A in. (mm)	B in. (mm)	D** in. (mm)	Max. Design Load (cULus) lbs./ (kN)	Approx.Wt./100 lbs. (kg)
*980- $\frac{3}{8}$	$4\frac{9}{16}$ (114.9)	$2\frac{1}{16}$ (52.4)	$\frac{7}{16}$ (11.1)	1600 (7.12)	149 (67.6)
*980- $\frac{1}{2}$			$\frac{9}{16}$ (14.3)	2100 (9.34)	148 (67.1)
*980- $\frac{5}{8}$			$\frac{11}{16}$ (17.5)	2100 (9.34)	147 (66.7)
*980- $\frac{3}{4}$			$\frac{13}{16}$ (20.6)	2100 (9.34)	146 (66.2)
980H- $\frac{7}{8}$	$6\frac{3}{4}$ (171.4)	$3\frac{1}{2}$ (88.9)	$\frac{15}{16}$ (23.8)	Fig. 980H is not UL Listed or FM Approved	402 (182.3)
980H-1			$1\frac{1}{16}$ (27.0)		400 (181.4)
980H- $1\frac{1}{8}$			$1\frac{3}{16}$ (30.2)		397 (180.1)
980H- $1\frac{1}{4}$			$1\frac{5}{16}$ (33.3)		390 (176.9)

\* Sizes available in stainless steel (980S- $\frac{3}{8}$ , 980S- $\frac{1}{2}$ , 980S- $\frac{5}{8}$ , and 980S- $\frac{3}{4}$ ) and have the same UL rating as what is listed.

\*\* Mounting attachment hole size.

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## TOLCO Fig. 1001 - sway brace attachment (UL listed)

**Size Range:** Pipe size to be braced: 1" (25mm) thru 8" (200mm) IPS.  
Pipe size used for bracing: 1" (25mm) and 1 1/4" (32mm) Schedule 40 IPS.

**Material:** Steel

**Function:** For bracing pipe against sway and seismic disturbance. The pipe attachment component of a sway brace system: Fig. 1001 is used in conjunction with a Fig. 900 Series fitting and joined together with bracing pipe per NFPA 13, forming a complete sway brace assembly.

**Features:** Can be used to brace schedule 7 through schedule 40 IPS. Field adjustable, making critical pre-engineering of bracing pipe length unnecessary. Unique design requires no threading of bracing pipe. Comes assembled and ready for installation. Fig. 1001 has built-in visual verification of correct installation. See installation note below.

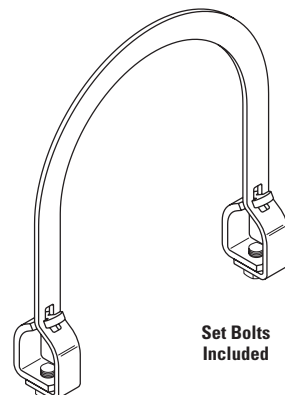
**Installation Note:** Position Fig. 1001 over the pipe to be braced and tighten two hex head cone point set bolts until heads bottom out. A minimum of 1" (25mm) pipe extension is recommended. Brace pipe can be installed on top or bottom of pipe to be braced.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). UL Listed for the following sprinkler type pipes: Sch. 40 (and as brace member), Sch. 10, Bull Moose Eddy Flow, Wheatland Mega Flow, DIN 2448, KSD 3562 (and as brace member), KSD 3507. Ask the factory for additional information as it may vary by product size. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13. For FM Approval information refer to FM Approved page 67.

**Finish:** Plain, Electro-Galvanized or Hot Dip Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Order by figure number, pipe size to be braced, followed by pipe size used for bracing (1" (25mm) or 1 1/4" (32mm)), and finish.

OPM  LISTED



Set Bolts Included



Pipe Size in. (mm)	Part Number & Approx. Wt./100				Design Load - Lbs.		
	1" (25mm) Brace Pipe		1 1/4" (32mm) Brace Pipe		For Brace Pipe Size 1" / 1 1/4"		
		Lbs. (kg)		Lbs. (kg)	Sch. 7 1" / 1 1/4"	Sch. 10 1" / 1 1/4"	Sch. 40 1" / 1 1/4"
1" (25)	1001-1 X 1	104.6 (47.4)	1001-1 X 1 1/4	122.2 (55.4)	— / —	— / —	1000 / 1000
1 1/4" (32)	1001-1 1/4 X 1	105.2 (47.7)	1001-1 1/4 X 1 1/4	122.6 (55.6)	1000 / 1000	1000 / 1000	1000 / 1000
1 1/2" (40)	1001-1 1/2 X 1	107.0 (48.5)	1001-1 1/2 X 1 1/4	124.7 (56.6)	1500 / 1500	1500 / 1500	1500 / 1500
2" (50)	1001-2 X 1	112.6 (51.1)	1001-2 X 1 1/4	129.2 (58.6)	1500 / 1500	1500 / 1500	1500 / 1500
*2 1/2" (65)	1001-2 1/2 X 1*	136.3 (61.8)	1001-2 1/2 X 1 1/4*	154.4 (70.0)	2000 / 2000	2000 / 2000	2000 / 2000
3" (80)	1001-3 X 1	145.0 (65.8)	1001-3 X 1 1/4	163.1 (74.0)	2000 / 2000	2000 / 2000	2000 / 2000
4" (100)	1001-4 X 1	158.6 (71.9)	1001-4 X 1 1/4	176.7 (80.1)	2000 / 2000	2000 / 2000	2000 / 2000
5" (100)	1001-5 X 1	173.2 (78.6)	1001-5 X 1 1/4	191.4 (86.8)	— / —	2000 / 2000	2000 / 2000
*6" (150)	1001-6 X 1*	190.0 (85.2)	1001-6 X 1 1/4*	206.0 (93.4)	2000 / 2000	2000 / 2000	2000 / 2000
*8" (200)	1001-8 X 1*	217.4 (111.5)	1001-8 X 1 1/4*	265.3 (120.3)	— / —	2000 / 2000	2000 / 2000

\*Note: Metric sizes available for 65mm, 150mm, 200mm pipe size with 25mm and 32mm brace pipe size. Contact the factory.

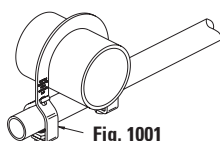
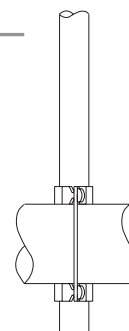
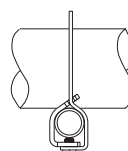
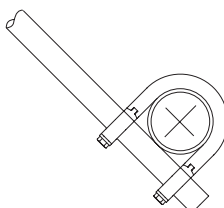


Fig. 1001



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## TOLCO Fig. 1000 - "Fast Clamp" branch line restraint attachment (UL listed)

**Size Range:** Pipe size to be braced: 1" (25mm) thru 4" (100mm) 40 IPS.  
Pipe size used for bracing: 1" (25mm) and 1¼" (32mm) Schedule 40 IPS.  
For pipe sizes larger than 2" (50mm) please refer to TOLCO™ Fig. 1001.

**Material:** Steel

**Function:** A restraint device intended for lateral bracing.

**Features:** Field adjustable, making critical pre-engineering of bracing pipe unnecessary. Unique design requires no threading of bracing pipe. Steel leaf spring insert provided to assure installer and inspector necessary minimum torque has been achieved.

**Installation:** Fig. 1000 is the "braced pipe" attachment component of a lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO structural attachment component, Fig. 980, 910, 909 or other approved TOLCO component to form a complete bracing assembly. Follow NFPA 13 guidelines.

**To Install:** Place the Fig. 1000 over the pipe to be braced, insert bracing pipe through opening leaving a minimum of 1" extension. Brace pipe can be installed on top or bottom of pipe to be braced. Tighten hex nuts until leaf spring is flat. It is recommended that the brace angle be adjusted before hex nuts are fully tightened.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Approved for use with engineered light wall sprinkler pipe up to 2" as a restraint device. Torque requirement is 6-8 ft./lbs. (8-10Nm). Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

For FM Approval information refer to FM Approved page 69.

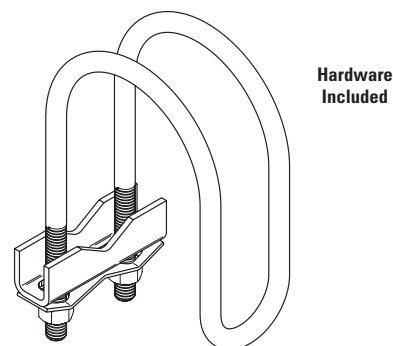
**Application Note:** Position Fast Clamp and tighten two hex nuts until leaf spring flattens. A minimum of 1" pipe extension beyond the Fig. 1000 is recommended.

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

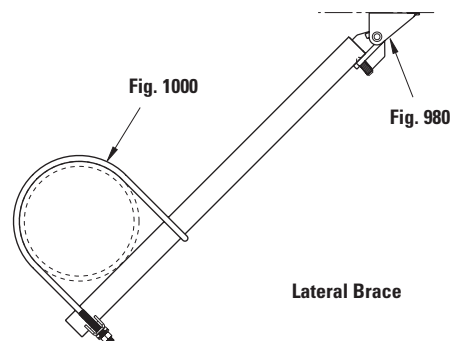
**Order By:** Order by figure number, pipe size to be braced, followed by pipe size used for bracing (1" (25mm) or 1¼" (32mm)) , and finish.

Pipe Size in. (mm)	Part Number & Approx. Wt./100			
	1" (24mm) Brace Pipe		1¼" (32mm) Brace Pipe	
		Lbs. (kg)		Lbs. (kg)
1" (25)	1000-1 X 1	71.6 (32.5)	1000-1 X 1¼	75.8 (34.4)
1¼" (32)	1000-1¼ X 1	74.8 (33.9)	1000-1¼ X 1¼	79.1 (35.9)
1½" (40)	1000-1½ X 1	77.8 (35.3)	1000-1½ X 1¼	82.1 (37.2)
2" (50)	1000-2 X 1	84.1 (38.1)	1000-2 X 1¼	88.4 (40.1)

**UL Listed Design Load**  
1" (25mm) thru 2" (50mm) pipe size 650 Lbs. (2.89kN)



Hardware Included



Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## TOLCO Fig. 2002 - sway brace attachment (UL listed)

**Size Range:** Pipe size to be braced: 2½" (65mm) thru 8" (200mm) all steel schedules. Consult factory when bracing other than steel. The Fig. 2002 accepts brace pipes sizes 1½" (40mm) and 2" (50mm) steel schedule 40.

**Material:** Steel

**Function:** For bracing pipe against sway and seismic disturbance. The pipe attachment component of a sway brace system: Fig. 2002 is used in conjunction with a TOLCO™ Fig. 980 sway brace attachment and joined together with bracing pipe. Install per NFPA 13.

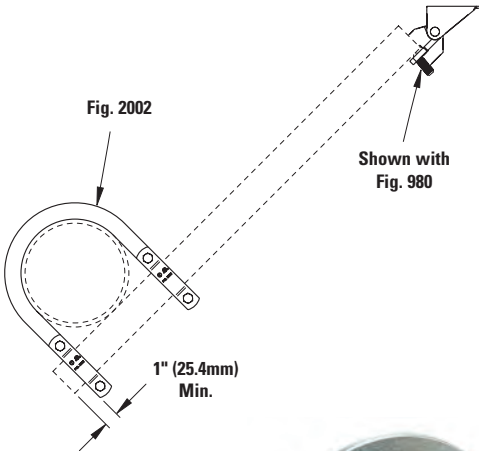
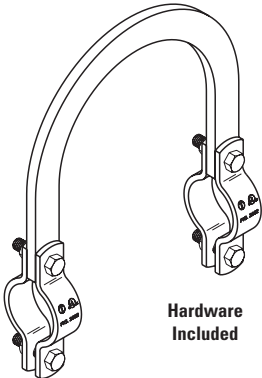
**Features:** Easy verification of proper installation by tightening bolts until ears touch.

**Installation:** Place Fig. 2002 over pipe to be braced. Slide bracing pipe through attachment and tighten hex nuts until ears touch.

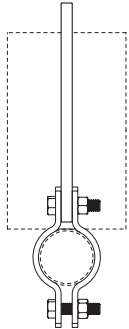
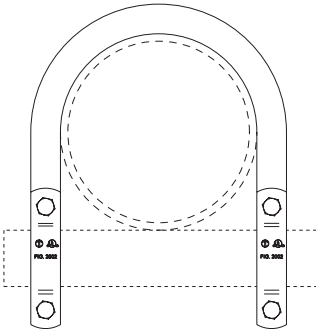
**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). UL Listed for the following sprinkler type pipes: Sch. 40 (and as brace member), Sch. 10, Bull Moose Eddy Flow, Wheatland Mega Flow, DIN 2448, KSD 3562 (and as brace member), KSD 3507. Ask the factory for additional information as it may vary by product size.

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number, pipe size to be braced, pipe size used for bracing (1½" (40mm) or 2" (50mm)) and finish.



Pipe Size in. (mm)	Part Number & Approx. Wt./100				Design Load	
	1½" (32mm) Brace Pipe	Lbs. (kg)	2" (50mm) Brace Pipe	Lbs. (kg)	Lbs. (kg)	(kN)
2½" (65)	2002-2½ X 1½	260 (117.9)	2002-2½ X 2	283.3 (128.6)	2000	(8.89)
3" (80)	2002-3 X 1½	276 (125.2)	2002-3 X 2	299.4 (135.8)	2000	(8.89)
4" (100)	2002-4 X 1½	303 (137.4)	2002-4 X 2	326.8 (148.2)	2000	(8.89)
6" (150)	2002-6 X 1½	361 (163.7)	2002-6 X 2	385.0 (174.6)	2000	(8.89)
8" (200)	2002-8 X 1½	416 (188.7)	2002-8 X 2	439.7 (199.4)	2000	(8.89)



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## TOLCO Fig. 98 - Rod Stiffener

## TOLCO Fig. 98B - Rod Stiffener with Break-Off Bolt Head

**Size Range:** Secures  $\frac{3}{8}$ "-16 thru  $\frac{7}{8}$ "-9 hanger rod

**Material:** Steel

**Function:** Secures channel to hanger rod for vertical seismic bracing.

**Approvals:** Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines OPM-0052-13.

**Finish:** Electro Galvanized. Contact customer service for alternative finishes and materials.

**Weight:** Approx. Wt./100: Fig. 98 - 11.8 Lbs. (5.3kg)  
Fig. 98B - 12.7 Lbs. (5.7kg)

**Order By:** Figure number

OPM



Fig. 98

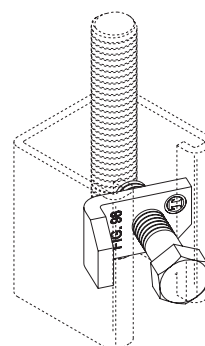
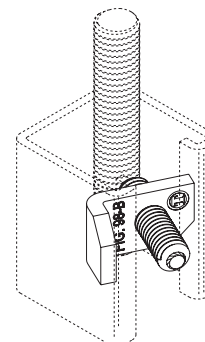


Fig. 98B



## Fig. SC228 - Hanger Rod Stiffener

**Size Range:** Secures  $\frac{3}{8}$ "-16 thru  $\frac{5}{8}$ "-11 hanger rod

**Material:** Steel

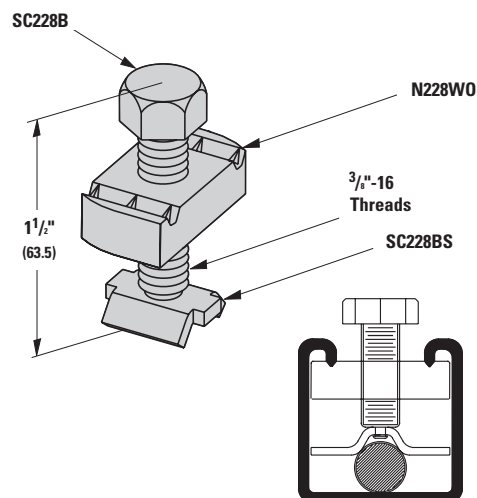
**Function:** Secures channel to hanger rod for vertical seismic bracing. Slight distortion of the channel (strut) may occur upon installation of rod stiffeners.

**Finish:** Electro Galvanized. Contact customer service for alternative finishes and materials.

**Weight:** Approx. Wt./100: 21.0 Lbs. (9.5kg)

**Order By:** Figure part number

**Note:** Order channel separately



## Rod Stiffener Requirements

Rod Size	Maximum Rod Length Without Rod Stiffener	Maximum Spacing Between Rod Stiffeners
$\frac{3}{8}$ "	19" (482mm)	13" (330mm)
$\frac{1}{2}$ "	25" (635mm)	18" (457mm)
$\frac{5}{8}$ "	31" (787mm)	23" (584mm)
$\frac{3}{4}$ "	37" (940mm)	28" (711mm)
$\frac{7}{8}$ "	43" (1092mm)	33" (838mm)
1"*	50" (1270mm)	38" (965mm)
1 1/4"*	60" (1524mm)	43" (1092mm)

\* Use with SC228 only.

### Notes:

- 1.) Rod stiffeners are required only on hanger and trapeze assemblies that have seismic bracing attached at or within 6" (152.4mm) of the rod. A minimum of two rod stiffeners (Figure 98, 98B, or SC228) must be installed.
- 2.) Recommended torque on Figure 98 and SC228 is 8 ft-lbs. (10.8Nm) or finger tight and one full turn with a wrench. Figure 98B has the break off bolt head.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Seismic Bracing

## TOLCO Fig. 4L - sway brace attachment (UL listed)

**Size Range:** 1" (25mm) through 8" (200mm) IPS. 10" (250mm) and 12" (300mm) not UL listed

**Material:** Steel and stainless steel.

**Function:** For bracing pipe against sway and seismic disturbance.

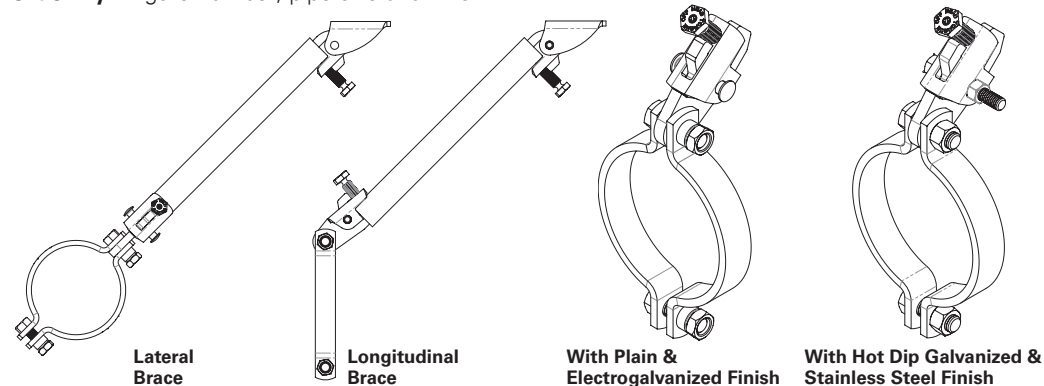
**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) 1" (25mm) through 8" (200mm) pipe. UL Listed for the following sprinkler type pipes: Sch. 40, Sch. 10, Bull Moose Eddy Flow, Wheatland Mega Flow, DIN 2448, KSD 3562, KSD 3507. Ask the factory for additional information as it may vary by product size. For FM Approval information refer to FM Approved page 75. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

**Installation Instructions:** Fig. 4L is the "braced pipe" attachment component of a longitudinal and lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO structural attachment component to form a complete bracing assembly. NFPA 13 guidelines should be followed. (For complete detailed instructions see instruction sheet [IL309015EN](#)).

**To Install:** Place the Fig. 4L over the pipe to be braced and tighten bolts. Then engage "bracing pipe" into jaw opening and tighten set bolt until head snaps off. Jaw attachment can pivot for adjustment to proper brace angle.

**Finish:** Plain, Electrogalvanized, Hot Dip Galvanized or Stainless Steel (only for 4" & 6" sizes).

**Order By:** Figure number, pipe size and finish.



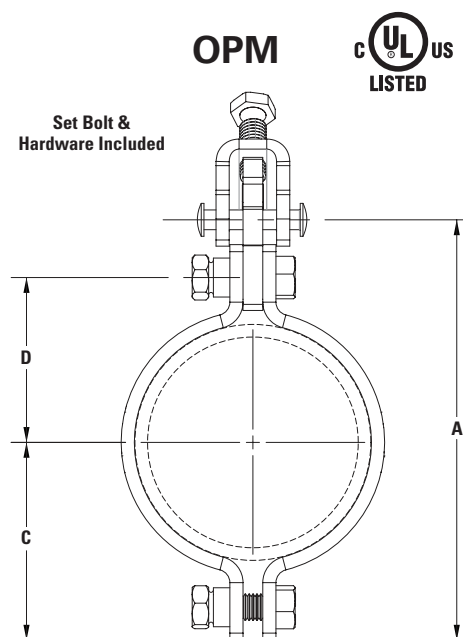
Part No.	Nom Pipe Size in.	(mm)	A (Max) in.	C in.	D in.	Bolt Size in.	UL Max. Rec. Load Logitudinal lbs.	UL Max. Rec. Load Lateral lbs.	PLN & EG. Approx. Wt./100 lbs.
4L-1	1	(25)	5	2	1 <sup>3</sup> / <sub>8</sub>	1/2-13	1000	1000	176
4L-1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	(32)	5 <sup>2</sup> / <sub>7</sub>	2 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	1/2-13	1000	1000	182
4L-1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	(40)	5 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>3</sub>	1 <sup>2</sup> / <sub>3</sub>	1/2-13	1000	1000	187
4L-2	2	(50)	6 <sup>2</sup> / <sub>7</sub>	2 <sup>2</sup> / <sub>3</sub>	2	1/2-13	1600	1000	204
4L-2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	—	6 <sup>7</sup> / <sub>9</sub>	3	2 <sup>1</sup> / <sub>3</sub>	1/2-13	2000	1000	217
4L-65mm	—	(65)	6 <sup>7</sup> / <sub>9</sub>	3	2 <sup>1</sup> / <sub>3</sub>	1/2-13	700	1000	214
4L-3	3	(80)	7 <sup>3</sup> / <sub>7</sub>	3 <sup>1</sup> / <sub>4</sub>	2 <sup>5</sup> / <sub>8</sub>	1/2-13	2000	1000	323
4L-3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	(90)	8	3 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1/2-13	2000	1000	343
4L-4***	4	(100)	8 <sup>3</sup> / <sub>7</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1/2-13	2000**	1000	253
4L-5	5	—	9 <sup>5</sup> / <sub>9</sub>	4 <sup>3</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1/2-13	2000**	1600*	314
4L-125mm	—	(125)	9 <sup>5</sup> / <sub>9</sub>	4 <sup>3</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1/2-13	1200	1600*	314
4L-6***	6	—	11 <sup>3</sup> / <sub>7</sub>	5 <sup>1</sup> / <sub>3</sub>	4 <sup>4</sup> / <sub>7</sub>	1/2-13	2000	1600*	540
4L-150mm	—	(150)	11 <sup>3</sup> / <sub>7</sub>	5 <sup>1</sup> / <sub>3</sub>	4 <sup>4</sup> / <sub>7</sub>	1/2-13	1200	1600*	538
4L-8	8	—	13 <sup>3</sup> / <sub>5</sub>	6 <sup>2</sup> / <sub>5</sub>	5 <sup>2</sup> / <sub>3</sub>	1/2-13	2000	2100*	645
4L-200mm	—	(200)	13 <sup>3</sup> / <sub>5</sub>	6 <sup>2</sup> / <sub>5</sub>	5 <sup>2</sup> / <sub>3</sub>	1/2-13	1400	2100*	643
4L-10****	10	(254)	17 <sup>3</sup> / <sub>5</sub>	8 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	1/2-13	NA	NA	1349
4L-12****	12	(300)	19 <sup>3</sup> / <sub>5</sub>	9 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	1/2-13	NA	NA	1526

\* Only UL listed as a lateral brace for use with a 1" (25mm) pipe as the brace member.

\*\* Only UL listed as a longitudinal brace for use with a 1" (25mm) thru 1<sup>1</sup>/<sub>2</sub>" (40mm) pipe as the brace member.

\*\*\* Fig 4L-4 and Fig 4L-6 are only sizes available in stainless steel 316.

\*\*\*\* FM approved not UL listed.



Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Updated 4-2-21

## TOLCO Figure 4B pipe clamp

**Size Range:** 3/4" (20mm) to 8" (200mm) pipe

**Material:** Steel

**Function:** For bracing pipe against sway and seismic disturbance

**Approvals:** Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

**Standard Finish:** Plain or Electro-Plated, Contact customer service for alternative finishes and materials.

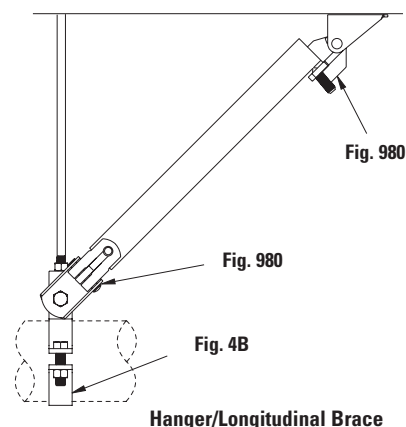
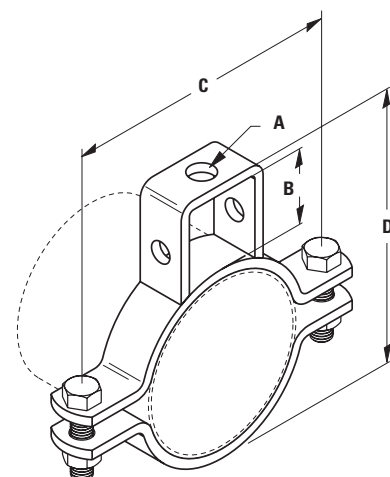
**Ordering:** Specify part number and finish.

**Installation Instructions:** Fig. 4B is the "braced pipe" attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and transitional and structural attachment component(s) to form a complete bracing assembly. OSHPD guidelines should be followed.

**To Install:** Place the Fig. 4B over the pipe to be braced. Attach other transitional fitting, Fig. 909, 910, 980, or 990. Tighten bolts and nuts. Transitional fitting attachment can pivot for adjustment to proper brace angle.



## OPM



Part No.	Pipe Size in. (mm)	Rod Size A	B in. (mm)	C in. (mm)	D in. (mm)	Bolt Size	Approx. Wt./100 Lbs. (kg)
4B-3/4	3/4" (20)	3/8"-16	1" (25.4)	2 7/8" (73.0)	2 5/8" (66.7)	5/16"-18	56 (25.4)
4B-1	1" (25)	3/8"-16	1" (25.4)	3 1/4" (82.5)	2 15/16" (74.6)	5/16"-18	60 (27.2)
4B-1 1/4	1 1/4" (32)	3/8"-16	1" (25.4)	3 9/16" (90.6)	3 1/4" (82.5)	5/16"-18	74 (33.5)
4B-1 1/2	1 1/2" (40)	3/8"-16	1" (25.4)	3 13/16" (96.8)	3 7/16" (87.3)	5/16"-18	79 (35.8)
4B-2	2" (50)	3/8"-16	1 1/2" (38.1)	5 1/8" (130.2)	4 5/8" (117.5)	5/16"-18	156 (70.7)
4B-2 1/2	2 1/2" (65)	1/2"-13	1 3/4" (44.4)	5 5/8" (142.9)	5 3/8" (136.5)	3/8"-16	176 (79.8)
4B-3	3" (80)	1/2"-13	1 7/8" (47.6)	6 3/4" (171.4)	6 1/8" (155.5)	3/8"-16	198 (89.9)
4B-3 1/2	3 1/2" (90)	1/2"-13	2" (50.8)	7 1/4" (184.1)	6 3/4" (171.4)	3/8"-16	219 (99.3)
4B-4	4" (100)	5/8"-11	2" (50.8)	8 5/8" (219.1)	7 1/4" (184.1)	1/2"-13	288 (130.6)
4B-5	5" (125)	5/8"-11	2" (50.8)	9 7/8" (250.8)	8 5/16" (211.1)	5/8"-11	390 (176.9)
4B-6	6" (150)	3/4"-10	2 7/8" (54.0)	10 15/16" (277.8)	9 1/2" (241.3)	5/8"-11	448 (203.2)
4B-8	8" (200)	7/8"-9	2 7/8" (54.0)	13 7/16" (341.2)	11 1/2" (292.1)	3/4"-10	691 (313.4)

Refer to OPM-0052-13 for approved loads.

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

**AWSD Series - Power Stud+<sup>®†</sup> SD2 seismic wedge anchors****Features:**

- Fully threaded, torque-controlled, wedge anchor which is designed for consistent performance in cracked and uncracked concrete.
- For use in concrete, structural sand lightweight concrete, and concrete over metal deck.
- Nominal drill bit size is the same as the anchor diameter.
- ICC-ES listed, ESR-2502, Category 1
- Zinc plated carbon steel body with stainless steel expansion clip from premium performance.
- Qualified for seismic and wind loading.

**Approvals:** Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

**ICC-ES** Certified. See ICC-ESR-2502

**UL** (Underwriters Laboratories) Listed

**FM** (Factory Mutual) Approved

Refer to pages 11-20 through 11-23 in Seismic Engineering Guidelines OPM-0052-13 for approval OSHPD structural attachment data.

**OPM**

Seismic Wedge Anchor - Data	3/8"-16	1/2"-13	5/8"-11	3/4"-10
ANSI Drill Bit Size (in. - mm)	3/8" - (9.5mm)	1/2" - (12.7mm)	5/8" - (15.9mm)	3/4" - (19.0mm)
Fixture Clearance Hole (in. - mm)	7/16" - (11.1mm)	9/16" - (14.3mm)	11/16" - (17.5mm)	13/16" - (20.6mm)
Minimum Hole Depth (in. - mm)	2 5/8" - (66.7mm)	2 3/4" - (69.8mm)	4 1/4" - (107.9mm)	5" - (127.0mm)
Minimum Concrete Thickness (in. - mm)	4" - (101.6mm)	4 1/2" - (114.3mm)	5 3/4" - (146.0mm)	7" - (177.8mm)
Max. Tightening Torque (lbs-ft - N•m)	20 lbs-ft - (27.1N•m)	40 lbs-ft - (54.2N•m)	60 lbs-ft - (81.3N•m)	110 lbs-ft - (149.1N•m)
Min. Embedment Depth (in. - mm)	2 3/8" - (60.3mm)	2 1/2" - (63.5mm)	3 7/8" - (98.4mm)	4 1/2" - (114.3mm)

For loading information, refer to the ICC-ES ESR-2502 evaluation report.

Wedge Anchor Part No.	Anchor Size		Length		Thread Length		Wt./100	
	Diameter in. (mm)		in. (mm)		in. (mm)		Lbs. (kg)	
<b>AWSD-37-300</b>	3/8" (9.5)		3" (76.2)		1 3/4" (44.4)		11.4 (5.2)	
<b>AWSD-37-350</b>	3/8" (9.5)		3 1/2" (88.9)		2 1/4" (57.1)		12.2 (5.5)	
<b>AWSD-37-375</b>	3/8" (9.5)		3 3/4" (95.2)		2 1/2" (63.5)		13.2 (6.0)	
<b>AWSD-37-500</b>	3/8" (9.5)		5" (127.0)		3 3/4" (95.2)		16.0 (7.2)	
<b>AWSD-50-375</b>	1/2" (12.7)		3 3/4" (95.2)		2 1/8" (54.0)		23.0 (10.4)	
<b>AWSD-50-450</b>	1/2" (12.7)		4 1/2" (114.3)		2 7/8" (73.0)		26.6 (12.0)	
<b>AWSD-50-550</b>	1/2" (12.7)		5 1/2" (139.7)		3 7/8" (98.4)		34.0 (15.4)	
<b>AWSD-50-700</b>	1/2" (12.7)		7" (177.8)		5 3/8" (136.5)		38.0 (17.2)	
<b>AWSD-62-475</b>	5/8" (15.9)		4 3/4" (120.6)		2 7/8" (73.0)		50.3 (22.8)	
<b>AWSD-62-500</b>	5/8" (15.9)		5" (127.0)		3 1/8" (79.4)		52.0 (23.6)	
<b>AWSD-62-600</b>	5/8" (15.9)		6" (152.4)		4 1/8" (104.8)		58.8 (26.7)	
<b>AWSD-62-700</b>	5/8" (15.9)		7" (177.8)		5 1/8" (130.2)		65.2 (29.6)	
<b>AWSD-75-550</b>	3/4" (19.0)		5 1/2" (139.7)		3 1/4" (82.5)		81.5 (36.9)	
<b>AWSD-75-625</b>	3/4" (19.0)		6 1/4" (158.7)		4" (101.6)		94.0 (42.6)	
<b>AWSD-75-700</b>	3/4" (19.0)		7" (177.8)		4 3/4" (120.6)		106.5 (48.3)	

<sup>†</sup> Power Stud+<sup>®</sup> SD2 is a registered trademark used by DeWalt.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Concrete Anchors

## TOLCO Fig. 109DD - DDI+™† - concrete deck insert - hanger application

**Size Range:** 3/8"-16 thru 7/8"-9 rod

**Material:** Steel

**Function:** For use in concrete filled metal deck (20 GA. min.) assemblies (i.e. pan deck, Q-deck) applications. After installation, the threaded male hanger of the insert protrudes below the surface of the deck. The threaded bolt offers adjustability for precise height requirements and guarantees the minimum embedment depth. The longer plate enables a variety of installation locations across the deck. Pre-mounted drill screws included for installation.

**Approvals:** International Code Council, Evaluation Service (ICC-ES), ESR-3958 for concrete, for 3/8"-16 thru 5/8"-11" anchor sizes.

Approved for seismic and wind loading.

**UL** (Underwriters Laboratories) Listed

**FM** (Factory Mutual) Approved

**Finish:** Plate: Plain Steel. Rod: Electro-Galvanized.

**Order By:** Figure number, rod size and finish.

Applications Per NFPA 13 (2010): UL Listed as a component of a hanger assembly per Section 9.1.1.4.1

See dimensions and installation Detail below.

**Note:** Fig. 109DD replaces Fig. 109A which has been discontinued.

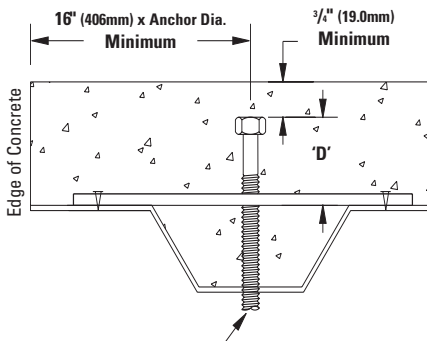
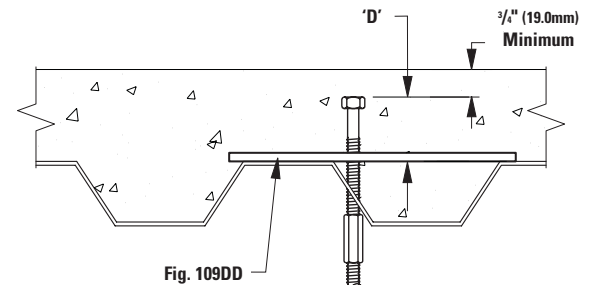
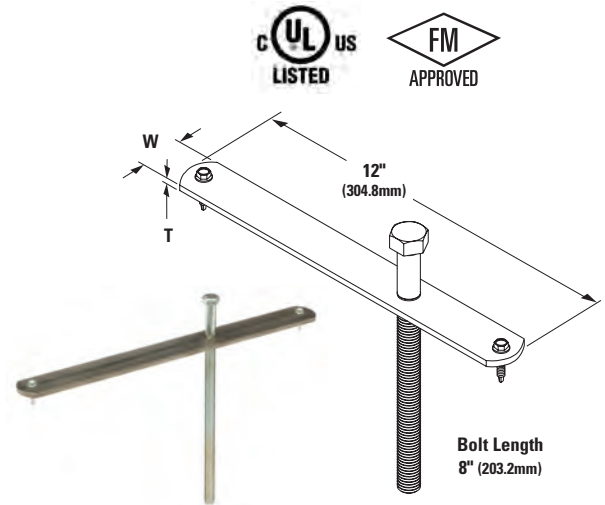


Fig. 109DD

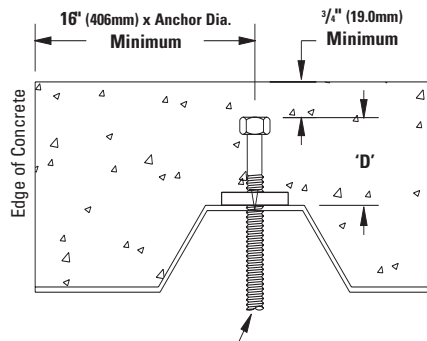


Fig. 109DD

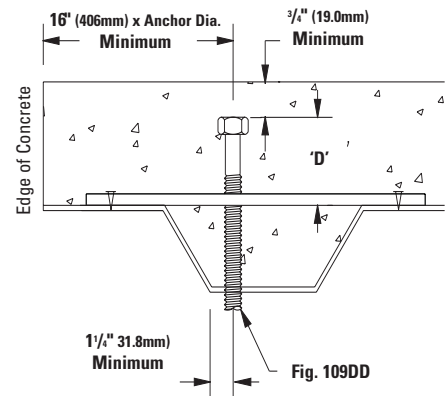


Fig. 109DD

Part No.	Rod Size	T in. (mm)	W in. (mm)	Max. Vertical Load lbs. (kn)	'D' Min. Anchor Embedment Depth in. (mm)	Approx. Wt./100 lbs. (kg)
109DD-3/8	3/8"-16	3/16" (4.7)	1 1/4" (31.7)	467 (2.08)	2 1/2" (63.5)	98.1 (44.5)
109DD-1/2	1/2"-13	3/16" (4.7)	1 1/4" (31.7)	680 (3.02)	2 1/2" (63.5)	112.8 (51.1)
109DD-5/8	5/8"-11	3/16" (4.7)	1 1/4" (31.7)	647 (2.88)	2 1/2" (63.5)	139.3 (63.2)
109DD-3/4	3/4"-10	3/8" (9.5)	2" (50.8)	612 (2.72)	2 1/2" (63.5)	112.8 (51.1)
109DD-7/8	7/8"-9	3/8" (9.5)	2" (50.8)	577 (2.56)	2 1/2" (63.5)	381.2 (172.9)

### NOTES:

1. Mounting holes are standard. If the plate is not mechanically secured to the deck ribs, a jam nut is required to prevent the anchor bolt from laying over when concrete is poured. There is no structural strength added from the use of a mechanical fastener to hold the product in place before the pour.
2. Minimum spacing between inserts shall be not less than 3 times the embedment depth or 12 times the anchor diameter (whichever is greater)

† DDI+™ is a registered trademark used by DEWALT®

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

**TOLCO Fig. 109DD-DDI+™† - concrete deck insert - brace application****Size Range:** 3/8"-16 thru 7/8"-9 rod**Material:** Steel

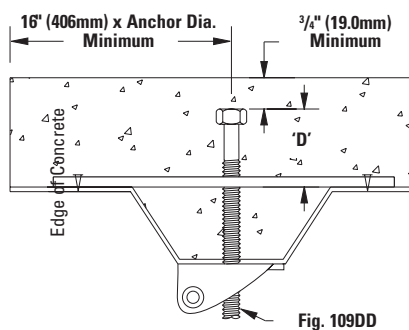
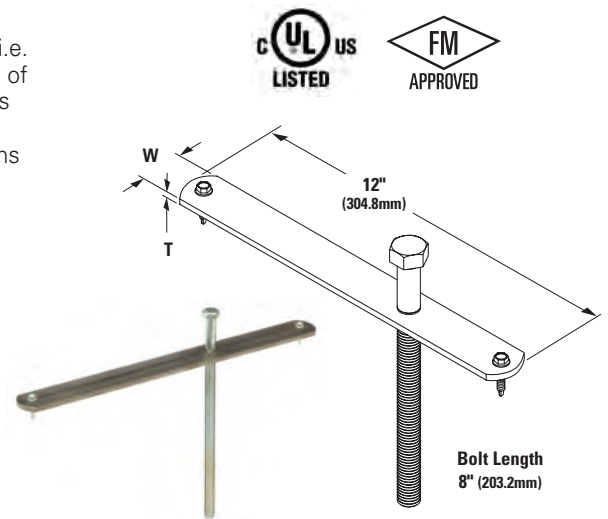
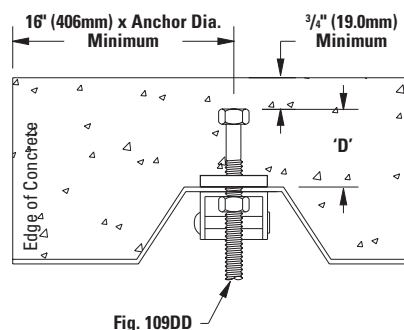
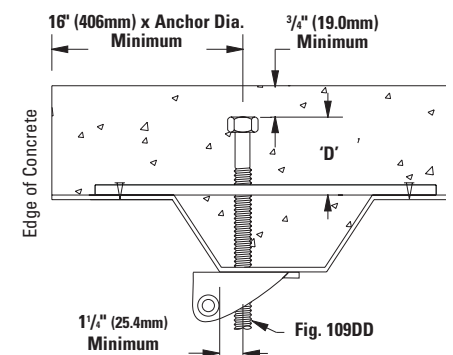
**Function:** For use in concrete filled metal deck (20 GA. min.) assemblies (i.e. pan deck, Q-deck) applications. After installation, the threaded male hanger of the insert protrudes below the surface of the deck. The threaded bolt offers adjustability for precise height requirements and guarantees the minimum embedment depth. The longer plate enables a variety of installation locations across the deck. Pre-mounted drill screws included for installation.

**Approvals:** International Code Council, Evaluation Service (ICC-ES), ESR-3958 for concrete, for 3/8"-16 thru 5/8"-11" anchor sizes. Approved for seismic and wind loading.

**UL** (Underwriters Laboratories) Listed**FM** (Factory Mutual) Approved**Finish:** Plate: Plain Steel. Rod: Electro-Galvanized.**Order By:** Figure number, rod size and finish.

Applications Per NFPA 13 (2010): UL Listed as a component of a hanger assembly per Section 9.1.1.4.1

See dimensions and installation Detail below.

**Note:** Fig. 109DD replaces Fig. 109A which has been discontinued.**Detail 1****Detail 2****Detail 3**

Part No.	Rod Size	T in. (mm)	W in. (mm)	Details 1 & 2 Max. Horizontal Load Brace At 45° lbs. (kN)	Detail 3 Max. Horizontal Load Brace At 45° lbs. (kN)	'D' Min. Anchor Embedment Depth in. (mm)	Approx. Wt./100 lbs. (kg)
109DD-3/8	3/8"-16	3/16" (4.7)	1 1/4" (31.7)	311 (1.38)	257 (1.14)	2 1/2" (63.5)	98.1 (44.5)
109DD-1/2	1/2"-13	3/16" (4.7)	1 1/4" (31.7)	424 (1.89)	332 (1.48)	2 1/2" (63.5)	112.8 (51.1)
109DD-5/8	5/8"-11	3/16" (4.7)	1 1/4" (31.7)	482 (2.14)	363 (1.61)	2 1/2" (63.5)	139.3 (63.2)
109DD-3/4	3/4"-10	3/8" (9.5)	2" (50.8)	482 (2.14)	363 (1.61)	2 1/2" (63.5)	338.7 (153.6)
109DD-7/8	7/8"-9	3/8" (9.5)	2" (50.8)	482 (2.14)	363 (1.61)	2 1/2" (63.5)	381.2 (172.9)

Seismic bracing design load calculated in compliance with the requirements of IBC 2015 / CBC 2016.

**NOTES:**

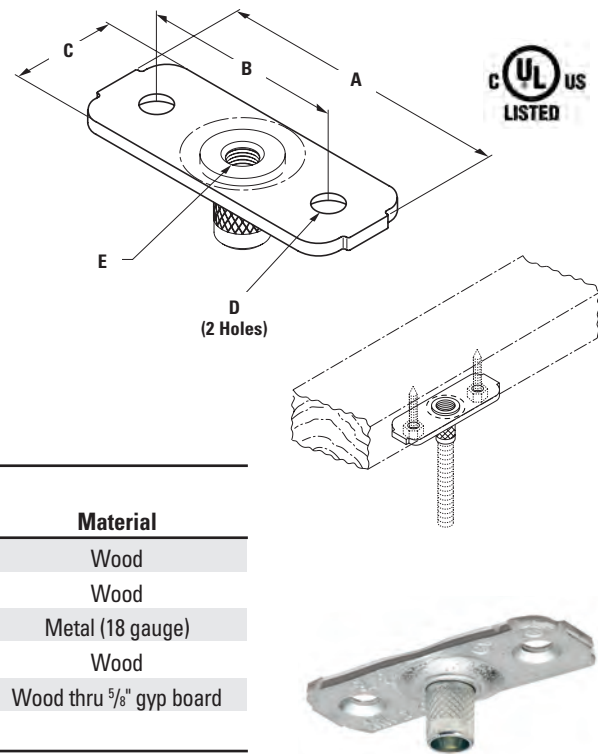
1. Mounting holes are standard. If the plate is not mechanically secured to the deck ribs, a jam nut is required to prevent the anchor bolt from laying over when concrete is poured. There is no structural strength added from the use of a mechanical fastener to hold the product in place before the pour.
2. Minimum spacing between inserts shall be not less than 3 times the embedment depth or 12 times the anchor diameter (whichever is greater)

† DDI+™ is a registered trademark used by DEWALT®

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

**TOLCO Fig. 78 - all steel ceiling plate****Size Range:** 3/8"-16 rod**Material:** Pre-Galvanized Steel**Function:** Attachment to wood beams, ceilings, metal decks or walls. Can also be welded to steel beams.**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Additionally, UL has listed the Fig. 78 with fasteners as shown in the table below.**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.**Order By:** Figure number, rod size and finish

Patent #5,702,077

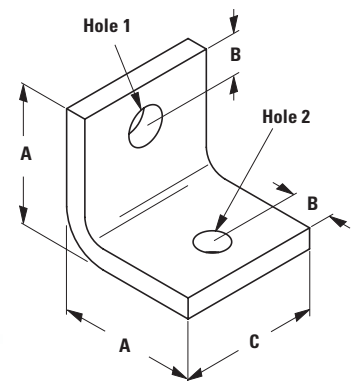


UL Listed Fastener Table				
Pipe Size	Qty	Fastener Type	Material	
1/2" - 2"	2	#14 x 1 1/4" A-point hex-washer-head sheet metal screw	Wood	
2 1/2" - 4"	2	1/4" x 1 1/2" wood screws*	Wood	
1/2" - 2"	2	1/4" x 1" tek screws	Metal (18 gauge)	
1/2" - 2"	2	#14 x 1 1/4" A-point hex-washer-head sheet metal screw	Wood	
1/2" - 2"	2	#14 x 2" A-point-hex-washer-head sheet metal screw	Wood thru 5/8" gyp board	

\* No pre-drilling

Larger pipe sizes can be hung with reduced spacing.

Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Hole Dia. D in. (mm)	Thread Size E	Approx. Wt./100 Lbs. (kg)
78-3/8	1/2" - 2" (15 - 60)	3" (76.2)	2 1/8" (54.0)	1 1/8" (28.6)	5/16" (7.9)	3/8"-16	15 (6.8)

**TOLCO Fig. 51 - side beam bracket for NFPA rod & fastener sizing****Size Range:** 3/8"-16 thru 1/2"-13 rod, 1/2" (15mm) thru 8" pipe (200mm)**Material:** Steel**Function:** Recommended for attaching hanger rod to side of beams or walls. Designed to accommodate current rod schedule and fastener requirements per National Fire Protection Association (NFPA) Pamphlet 13.**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL), and Factory Mutual Engineering approved.**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.**Order By:** Figure number and finish

Part No.	Pipe Size in. (mm)	Rod Size	A in. (mm)	B in. (mm)	C in. (mm)	Hole 1 in. (mm)	Hole 2 in. (mm)	Approx. Wt./100 Lbs. (kg)
51NFPA-3/8x3/8	1/2" - 2" (15 - 60)	3/8"-16	2" (50.8)	3/4" (19.0)	2" (50.8)	7/16" (11.1)	7/16" (11.1)	35 (15.9)
51NFPA-3/8x1/2	2 1/2" - 4" (65 - 100)	3/8"-16	2" (50.8)	3/4" (19.0)	2" (50.8)	9/16" (14.3)	7/16" (11.1)	34 (15.4)
51NFPA-1/2x1/2	5" - 6" (125 - 150)	1/2"-13	2 1/2" (63.5)	3/4" (19.0)	2 1/2" (63.5)	9/16" (14.3)	9/16" (14.3)	71 (32.2)
51NFPA-1/2x5/8	8" (200)	1/2"-13	2 1/2" (63.5)	3/4" (19.0)	2 1/2" (63.5)	1 1/16" (17.5)	9/16" (14.3)	70 (31.7)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Upper Attachments

## TOLCO Fig. 50 - side beam bracket

**Size Range:** 3/8"-16 thru 7/8"-9 rod

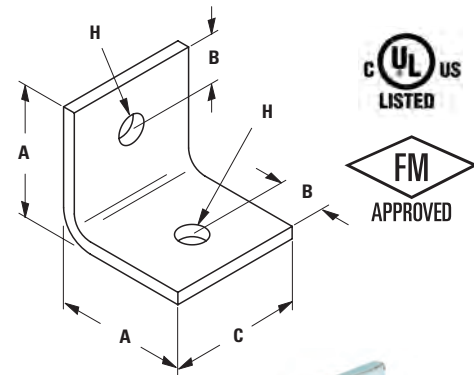
**Material:** Steel

**Function:** Recommended for attaching hanger rod to side of beams or walls.

**Approvals:** 3/8"-16 - Underwriters Laboratories Listed in the USA (UL) and Canada (cUL), and Factory Mutual Engineering (FM) approved.

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number, rod size and finish



Part No.	Rod Size	A in. (mm)	B in. (mm)	C in. (mm)	Hole Size H in. (mm)	Approx. Wt./100 Lbs. (kg)
50-3/8	3/8"-16	2" (50.8)	3/4" (19.0)	2" (50.8)	7/16" (11.1)	35 (15.9)
50-1/2	1/2"-13	2" (50.8)	3/4" (19.0)	2" (50.8)	9/16" (14.3)	35 (15.9)
50-5/8	5/8"-11	2" (50.8)	3/4" (19.0)	2" (50.8)	11/16" (17.5)	32 (14.5)
50-3/4	3/4"-10	2 1/2" (63.5)	3/4" (19.0)	2 1/2" (63.5)	13/16" (20.6)	110 (49.9)
50-7/8	7/8"-9	2 1/2" (63.5)	3/4" (19.0)	2 1/2" (63.5)	15/16" (23.8)	100 (45.3)



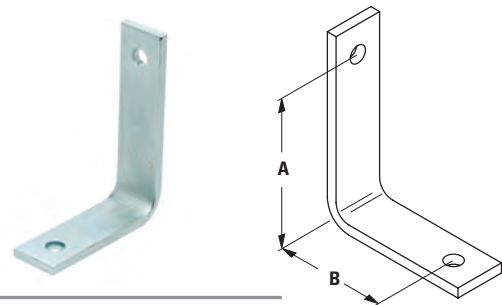
## B3061 - Angle bracket

**Material:** Steel

**Function:** — Recommended for supporting pipe at various distances from wall or column.

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number and finish



Part No.	Size in.	A in. (mm)	B in. (mm)	Hole Size in. (mm)	Max. Rec. Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)
B3061-1	1	3" (76.2)	2" (50.8)	7/16" (11.1)	180 (0.80)	46 (20.8)
B3061-2	2	4" (101.6)	3" (76.1)	7/16" (11.1)	180 (0.80)	65 (29.5)
B3061-3	3	3" (76.2)	2" (50.8)	9/16" (14.3)	390 (1.73)	85 (38.5)
B3061-4	4	4" (101.6)	3" (76.1)	9/16" (14.3)	390 (1.73)	115 (52.1)

## TOLCO Fig. 56 - tapped side beam connector (stainless steel)

**Size Range:** 1/2" (15mm) thru 4" (100mm) pipe (3/8"-16 rod)

**Material:** Stainless Steel Type 304 or 316

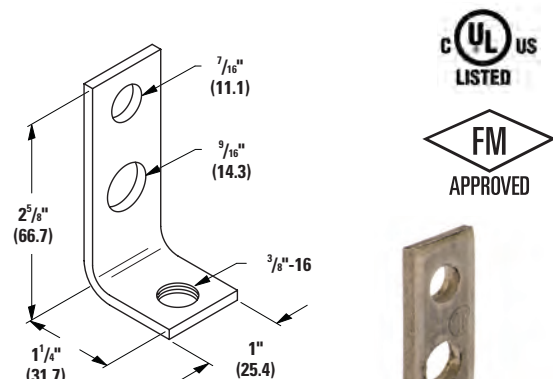
**Function:** Recommended for attaching hanger rod to steel or wood beams. Tapped hole allows easy adjustment of hanger rod.

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL), and Factory Mutual Engineering (FM) approved for 1/2" (15mm) thru 4" (100mm) pipe.

**Order By:** Figure number

**Note:** Available only in Stainless Steel materials.

**Per NFPA 13:** 1/2" (15mm) thru 2" (50mm) pipe use 3/8"-16 fastener;  
2 1/2" (65mm) thru 4" (100mm) pipe, use 1/2"-13 fastener.



Part No.	Approx. Wt./100 Lbs. (kg)
56	20 (9.1)



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

**TOLCO Fig. 58 - threaded side beam bracket**

**Size Range:**  $\frac{3}{8}$ "-16 rod, pipe sizes  $\frac{1}{2}$ " (15mm) thru 4" (100mm)

**Material:** Pre-Galvanized Steel

**Function:** Practical and economical bracket used to support piping from wood, concrete or steel beams.

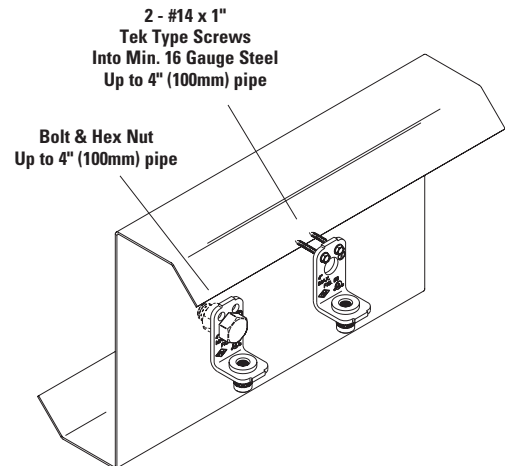
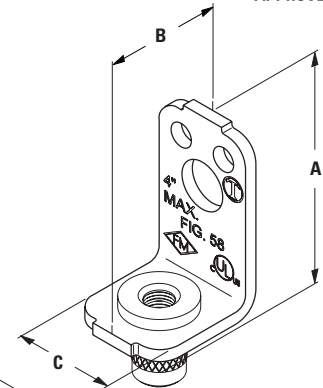
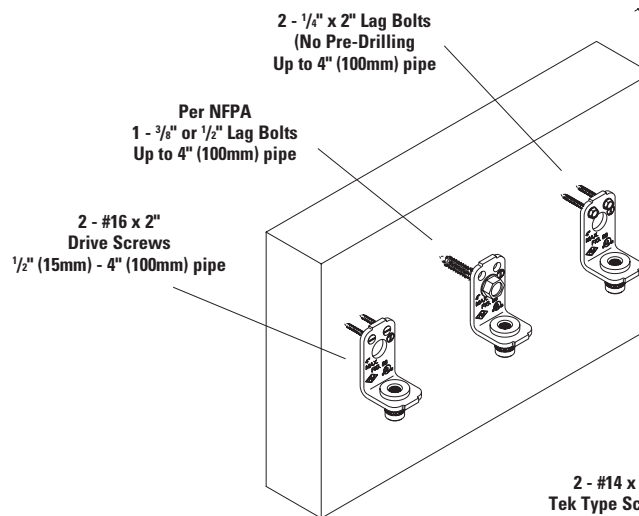
**Features:** Unique design allows rod to be easily threaded into bracket. Offset design permits unlimited rod adjustment. Center mounting hole will accept  $\frac{3}{8}$ " and  $\frac{1}{2}$ " fastener bolts. Per NFPA 13:  $\frac{1}{2}$ " (15mm) thru 2" (50mm) pipe requires  $\frac{3}{8}$ " fastener, 2 $\frac{1}{2}$ " (65mm) thru 4" (100mm) pipe requires  $\frac{1}{2}$ " fastener.\*

**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL), and Factory Mutual Engineering approved thru 4" (100mm) pipe.

**Finish:** Pre-Galvanized

**Order By:** Figure number and finish

**\*Note:** Additionally UL has listed the Fig. 58 with fasteners as shown in table below.



UL Listed Fastener Table			
Pipe Size	Qty	Fastener Type	Material
2"	2	#16 x 2" Drive screws	Wood
2"	1	$\frac{3}{8}$ " Lag bolt	Wood
2 $\frac{1}{2}$ " - 4"	1	$\frac{1}{2}$ " Lag bolt	Wood
3 $\frac{1}{2}$ "	2	$\frac{1}{4}$ " x 1 $\frac{1}{2}$ " Lag bolts	Wood
4"	2	$\frac{1}{4}$ " x 2" Lag bolts **	Wood
4"	2	$\frac{1}{4}$ " x 1" Tek screws	Metal (15 gauge)
4"	2	$\frac{1}{4}$ " x 1" Tek screws	Metal (16 gauge)

\*\* No pre-drilling

Larger pipe sizes can be hung with reduced spacing.

Part No.	Pipe Size in. (mm)	Rod Size	A in. (mm)	B in. (mm)	C in. (mm)	Approx. Wt./100 Lbs. (kg)
58	$\frac{1}{2}$ " - 4" (15 - 100)	$\frac{3}{8}$ "-16	2 $\frac{3}{4}$ " (69.8)	1 $\frac{1}{2}$ " (38.1)	1 $\frac{1}{8}$ " (28.6)	14 (6.3)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Threaded Accessories

## B3205 - Threaded rod (right-hand threads - both ends)

## B3205L - Threaded rod (right & left hand threads)

**Size Range:** 3/8"-16 thru 7/8"-9 rod

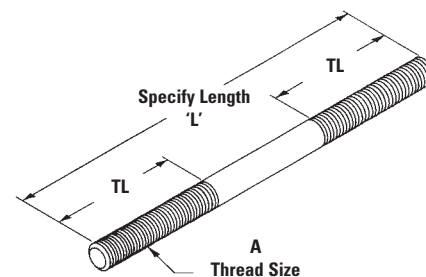
**Material:** Steel

**Function:** Recommended for use as a hanger support in hanger assemblies. Rod is threaded on both ends with right hand threads of the length shown. Also available with left and right hand threads - specify Fig. B3205L when ordering.

**Maximum Temperature:** 750°F (399°C)

**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Order By:** Figure number, rod size, length and finish



Part No.	Thread Size A	Standard		Design Load			
		Thread Length in.	TL (mm)	650°F (343°C)		750°F (399°C)	
				Lbs.	(kN)	Lbs.	(kN)
B3205-3/8 x 'L'	3/8"-16	2 1/2"	(63.5)	730	(3.25)	572	(2.54)
B3205-1/2 x 'L'	1/2"-13	2 1/2"	(63.5)	1350	(6.00)	1057	(4.70)
B3205-5/8 x 'L'	5/8"-11	2 1/2"	(63.5)	2160	(9.61)	1692	(7.52)
B3205-3/4 x 'L'	3/4"-10	3"	(76.2)	3230	(14.37)	2530	(11.25)
B3205-7/8 x 'L'	7/8"-9	3 1/2"	(88.9)	4480	(19.93)	3508	(15.60)

For larger sizes consult full line pipe hanger catalog.

## ATR - All threaded rod - 120" (3.05m) lengths

## TOLCO Fig. 99 - all threaded rod cut to length

**Size Range:** 1/4"-20 thru 7/8"-9 rod in 120" lengths or cut to length

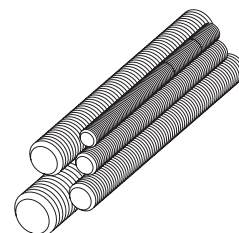
**Material:** Steel

**Maximum Temperature:** 750°F (399°C)

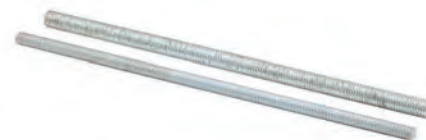
**Finish:** Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

**Approvals:** Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

**Order By:** Figure number, rod size, length and finish



OPM



Part No. - Size x Length		Threads Per Inch	Recommended Load		Approx. Wt./100 Ft.	
ATR	Fig. 99		Lbs.	(kN)	Lbs.	(kg)
ATR 1/4" x 120	99-1/4" x length	20	240	(1.07)	12	(5.44)
ATR 3/8" x 120	99-3/8" x length	16	730	(3.24)	29	(13.15)
ATR 1/2" x 120	99-1/2" x length	13	1350	(6.00)	53	(24.04)
ATR 5/8" x 120	99-5/8" x length	11	2160	(9.60)	89	(40.37)
ATR 3/4" x 120	99-3/4" x length	10	3230	(14.37)	123	(55.79)
ATR 7/8" x 120	99-7/8" x length	9	4480	(19.93)	170	(77.11)

For larger sizes consult full line pipe hanger catalog.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

**5E: FIRE SUPPRESSION SYSTEM DRAWINGS PROVIDED BY P2S, INC.**

A

**B**

## C

**D**

2

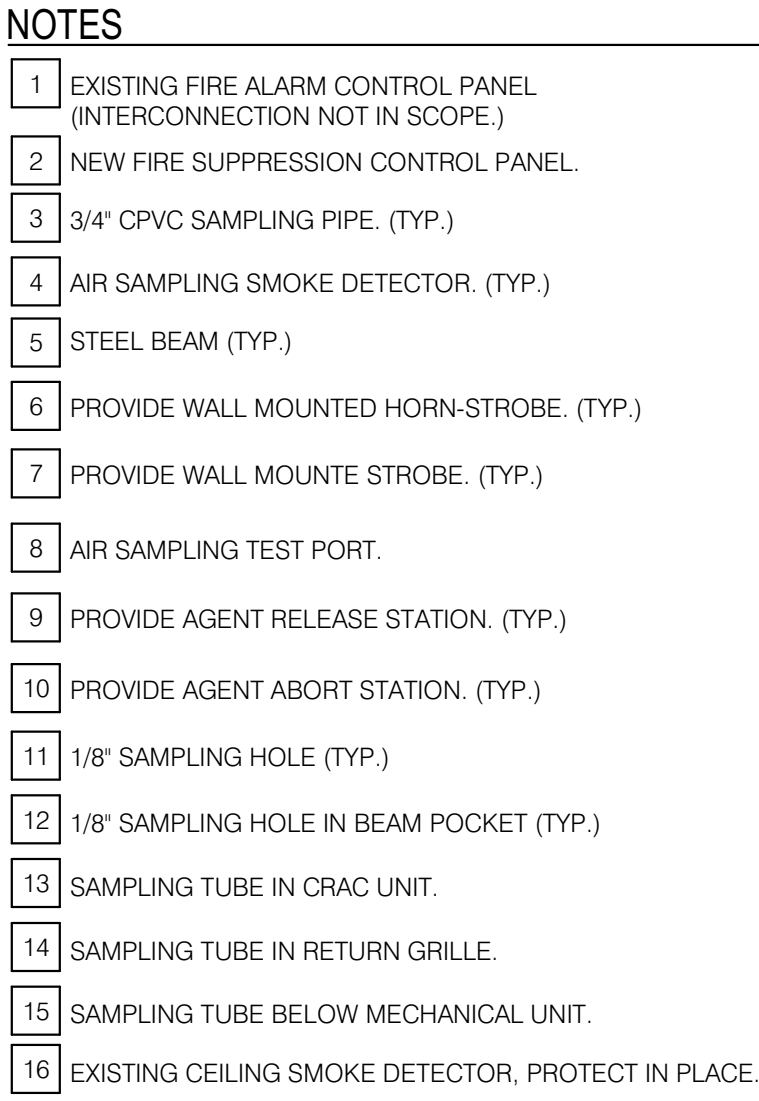
- 2

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D. INSTALL PIPE, HANGARS AND BRACING IN ACCORDANCE WITH THE MOST RECENT EDITION OF NFPA 303, NFPA 13 AND THE FSSA PIPE DESIGN HANDBOOK.

SHEET INDEX	
SHEET	DESCRIPTION
FS001	General Notes, Legend, Abbreviations and Sheet Index
FS201	Detection and Notification Floor Plan
FS202	Fire Suppression Floor Plan
FS204	Fire Suppression Sub-Floor Plan
FS601	Riser Diagram
FS602	Clean Agent Calculations
FS603	Clean Agent Calculations
FS604	Aspirating Detection Calculations
FS605	Aspirating Detection Calculations
FS607	Details
FS608	Details
FS609	Details
FS610	Details
FS611	Seismic Bracing Calculations

BOD Item 2G, Attach. 3, Page 388



PROJECT NORTH

Consultant

Project Title

## OCFA-Clean Agent Fire Suppression System

Owner



Date November 1, 202

Submittal Plan Check

Scale As indicator

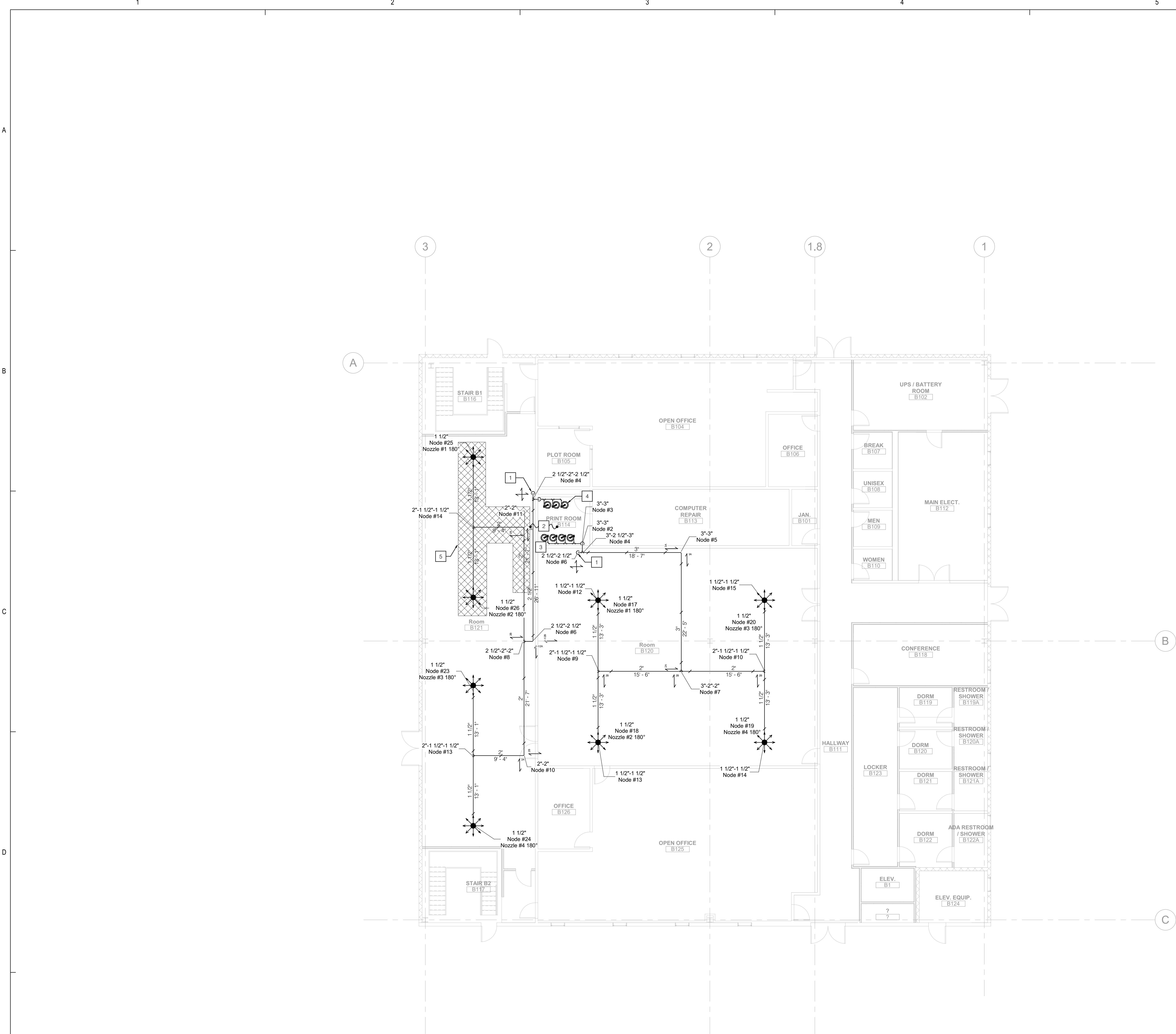
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Detection and Notification  
Floor Plan

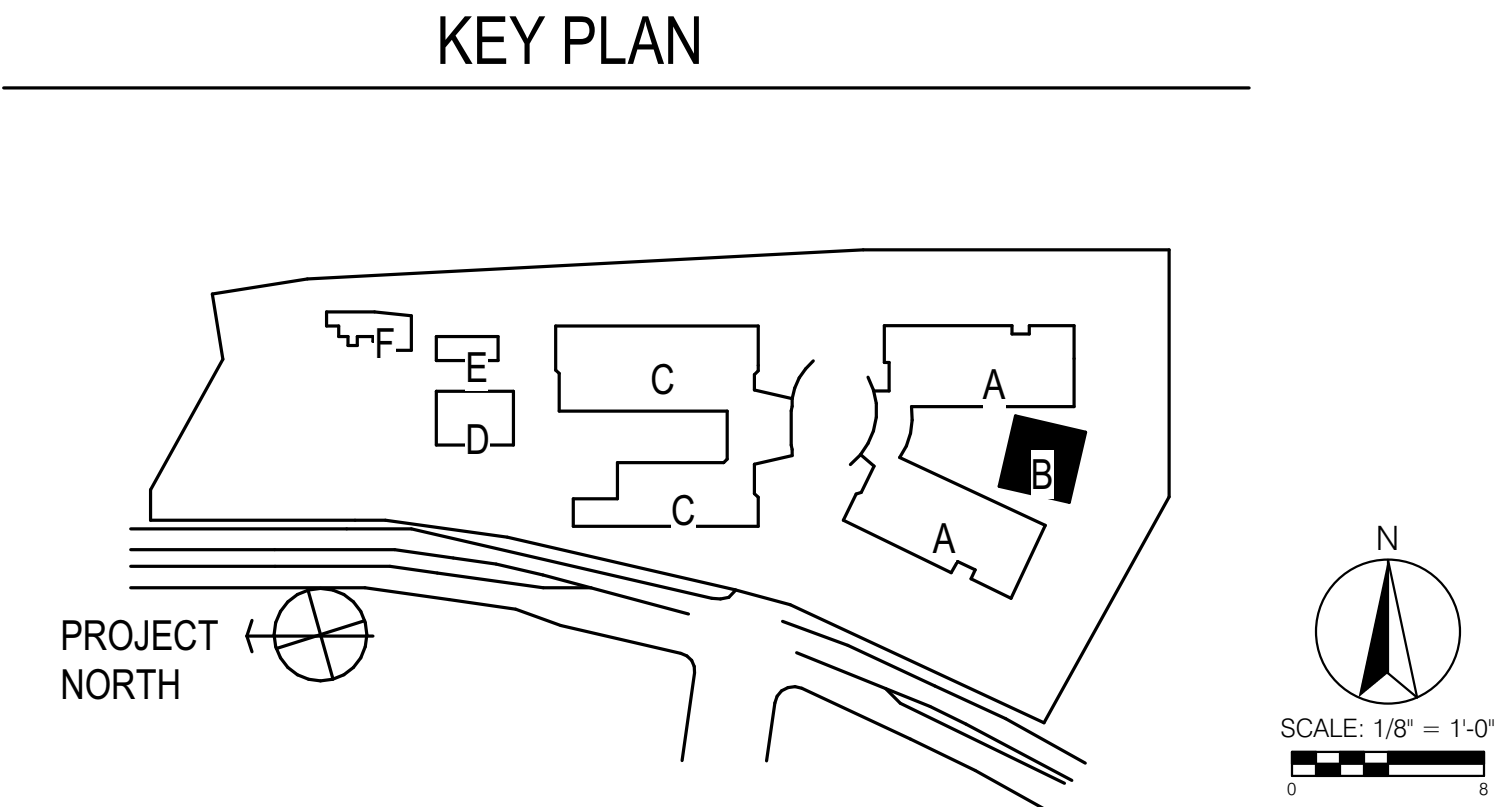
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- NOTES
- 1 TO BELOW.
  - 2 CLEAN AGENT TANK ROOM.
  - 3 CLEAN AGENT MANIFOLD 1.
  - 4 CLEAN AGENT MANIFOLD 2.
  - 5 ZONE OF INFLUENCE.



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San Diego // San Jose // Seattle

p2sinc.com

Consultant

Project Title

OCFA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions  
Number Description Date

Designed A Jimenez  
Drawn A Jimenez  
Checked T Jjaz  
Approved T Jjaz

Date November 1, 2021

Submittal Plan Check

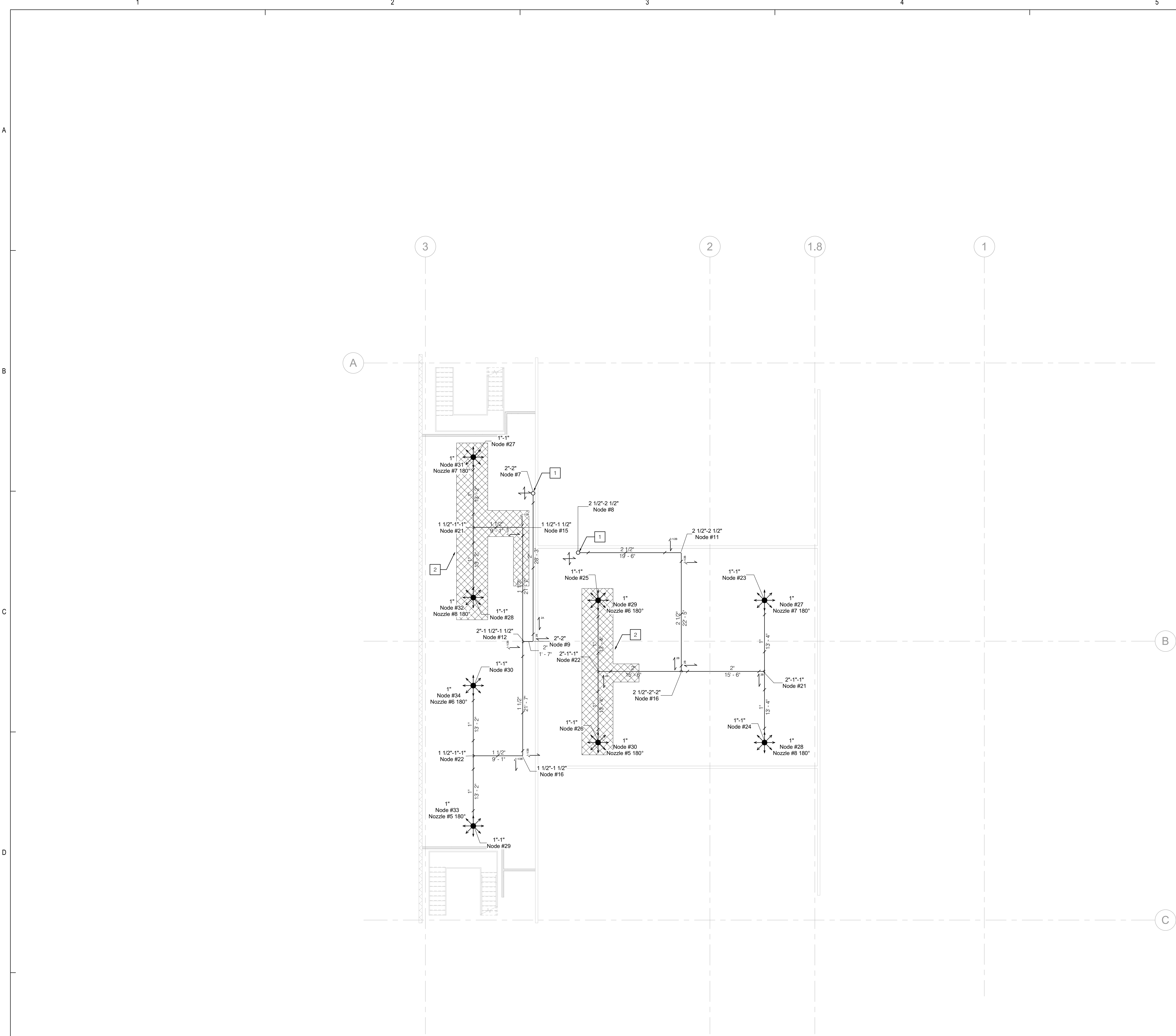
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Sheet Title  
Fire Suppression Floor  
Plan

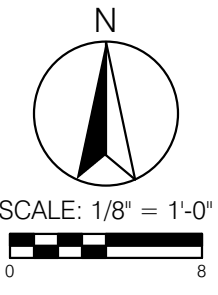
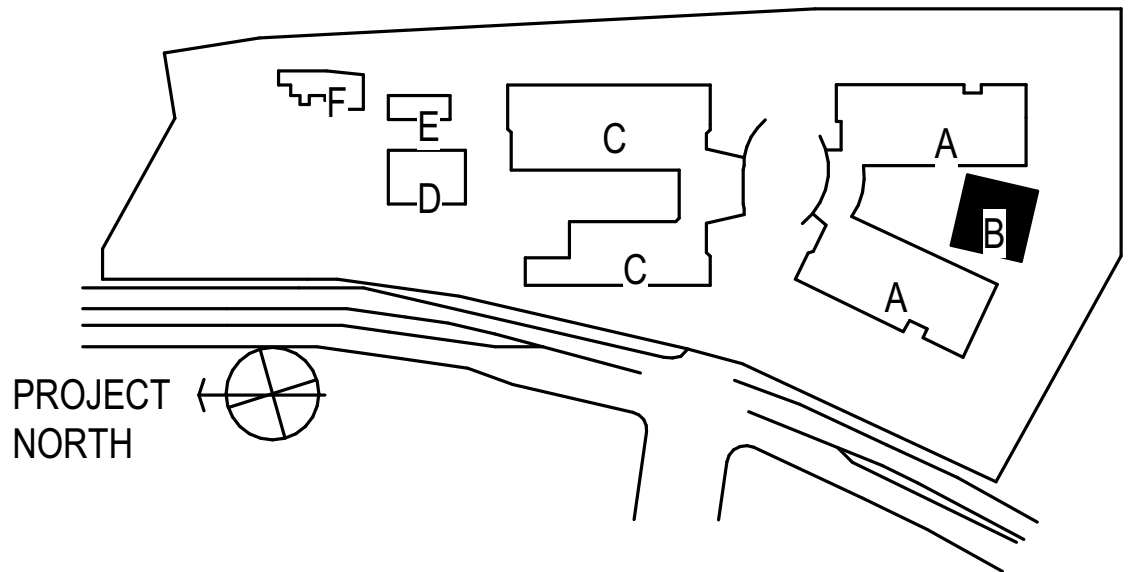
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FS202

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KEY PLAN



NOTES  
1 FROM ABOVE.  
2 ZONE OF INFLUENCE.

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Project Title

OCFA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions  
Number Description Date

Designed A Jimenez  
Drawn A Jimenez  
Checked T Jjaz  
Approved T Jjaz

Date November 1, 2021

Submittal Plan Check

Scale As indicated

Sheet Title  
Fire Suppression Sub-Floor  
Plan

Sheet Number

**FS204**

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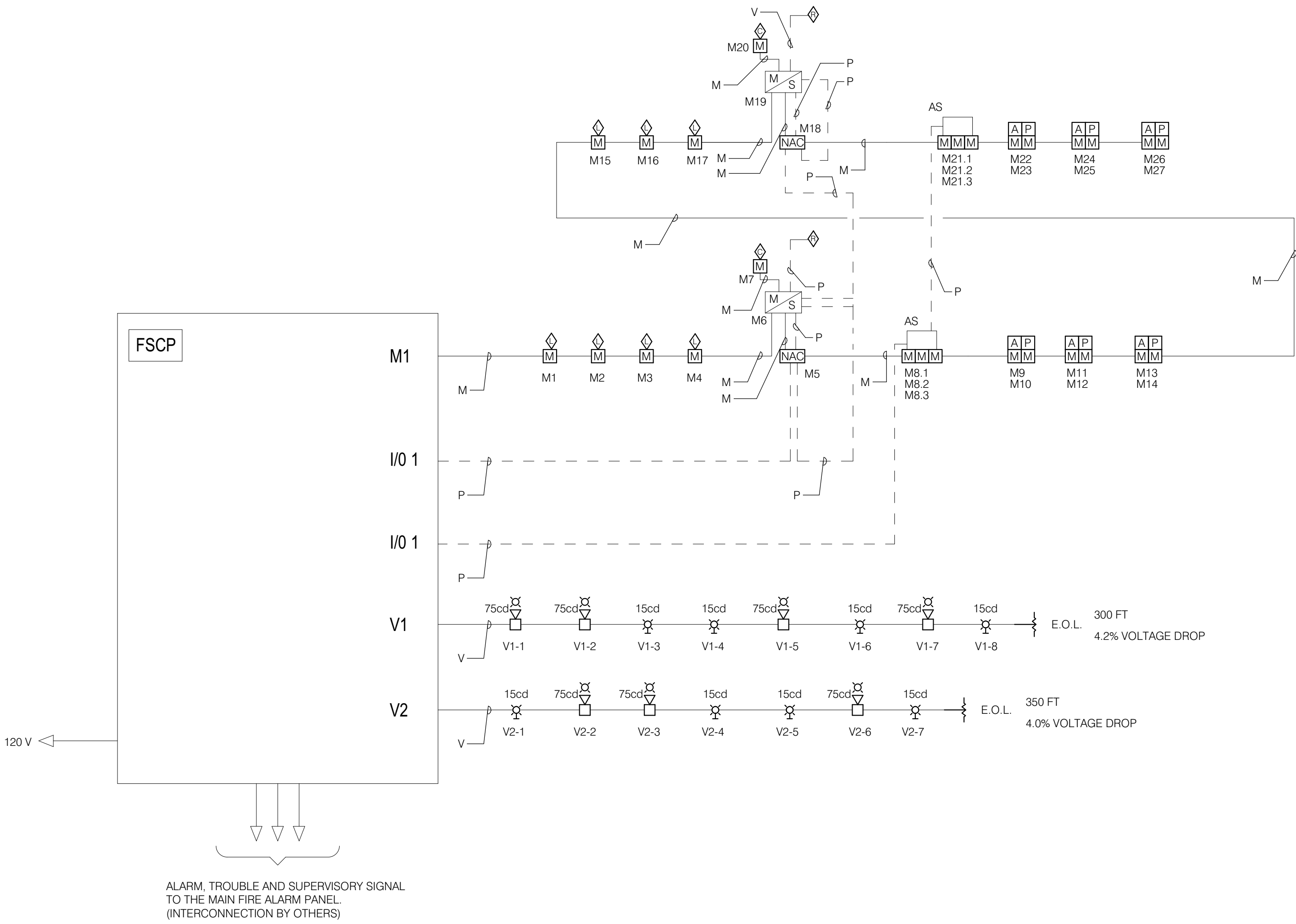
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VOLTAGE DROP CIRCUIT SCHEDULE																
PANEL	CIRCUIT	WALL STROBE 15cd 0.043	CLG. STROBE 15cd 0.041	WALL STROBE 30cd 0.063	CLG. STROBE 30cd 0.063	WALL STROBE 75cd 0.159	CLG. STROBE 75cd 0.111	TOTAL CURRENT AT 16VDC (AMPS)	OUTGOING PATH LENGTH (FEET)	COMBINED PATH LENGTH (FEET)	CIRCUIT RESISTANCE (OHMS)	VOLTAGE DROP FROM 20.4V (MAX 4.4V)	PERCENT VOLTAGE DROP FROM 20.4V (MAX 21.6%)	SPARE CIRCUIT CAPACITY BASED ON VOLTAGE DROP	VOLTAGE AT LAST DEVICE (MIN 16V)	DESCRIPTION
S-1	V1	4				4		0.728	300	300	1.19	0.86	4.2%	80.3%	19.5	VISUAL NAC
	V2	4				3		0.389	350	350	1.39	0.82	4.0%	81.4%	19.6	VISUAL NAC
								1.317		0						

Battery Capacity Calculation Sheet

FSCP

Location		Unit Standby	Unit Standby	Unit Alarm	Unit Alarm
Quantity	Description	Current (A)	Current (A)	Current (A)	Current (A)
PANEL EQUIPMENT - FIRE ALARM					
1	MAIN CIRCUIT BOARD (ARC-100)	0.130000	0.130000	0.220000	0.220000
NOTIFICATION APPLIANCES - STROBE					
1	VISUAL CIRCUIT V1	0.000000	0.000000	0.728000	0.728000
1	VISUAL CIRCUIT V2	0.000000	0.000000	0.589000	0.589000
INITIATING DEVICES					
6	RELEASE STATION	0.000200	0.001200	0.004500	0.027000
6	ABORT SWITCH	0.000375	0.002250	0.005000	0.030000
2	ASPIRATION DETECTOR	0.310000	0.620000	0.340000	0.680000
2	RELEASE NAC MODULE	0.000200	0.000400	0.000200	0.000400
27	MICRO INPUT MODULE	0.000200	0.005400	0.000200	0.005400
2	MAINTENANCE SWITCH	0.000000	0.000000	0.010000	0.020000
2	ELECTRIC ACTUATOR	0.020000	0.040000	0.500000	1.000000
ASSUMPTIONS:			0.797000		3.299800
BATTERY CALCULATIONS					
A - BATTERY BACKUP - STANDBY (HOURS)			24		
B - BATTERY ALARM (MINUTES)			5		
C - ALLOWABLE ERROR (%)			20%		
D - TOTAL STANDBY BACKUP (AMP-HOUR)			19.128		
E - TOTAL ALARM BACKUP (AMP-HOUR)			0.275		
F - ALLOWABLE ERROR (C x (D + E))			3.881		
TOTAL AMP-HOUR REQUIRED (D + E + F)			23.284		
BATTERY SUBMITTED			26 AH *		
*PROVIDE INDEPENDENT BATTERY CABINET					



FACP (E)

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Consultant

Project Title

OCFA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions

Number Description Date

Designed A Jimenez

Drawn A Jimenez

Checked T Ijaz

Approved T Ijaz

Date November 1, 2021

Submittal Plan Check

Scale No Scale

Sheet Title

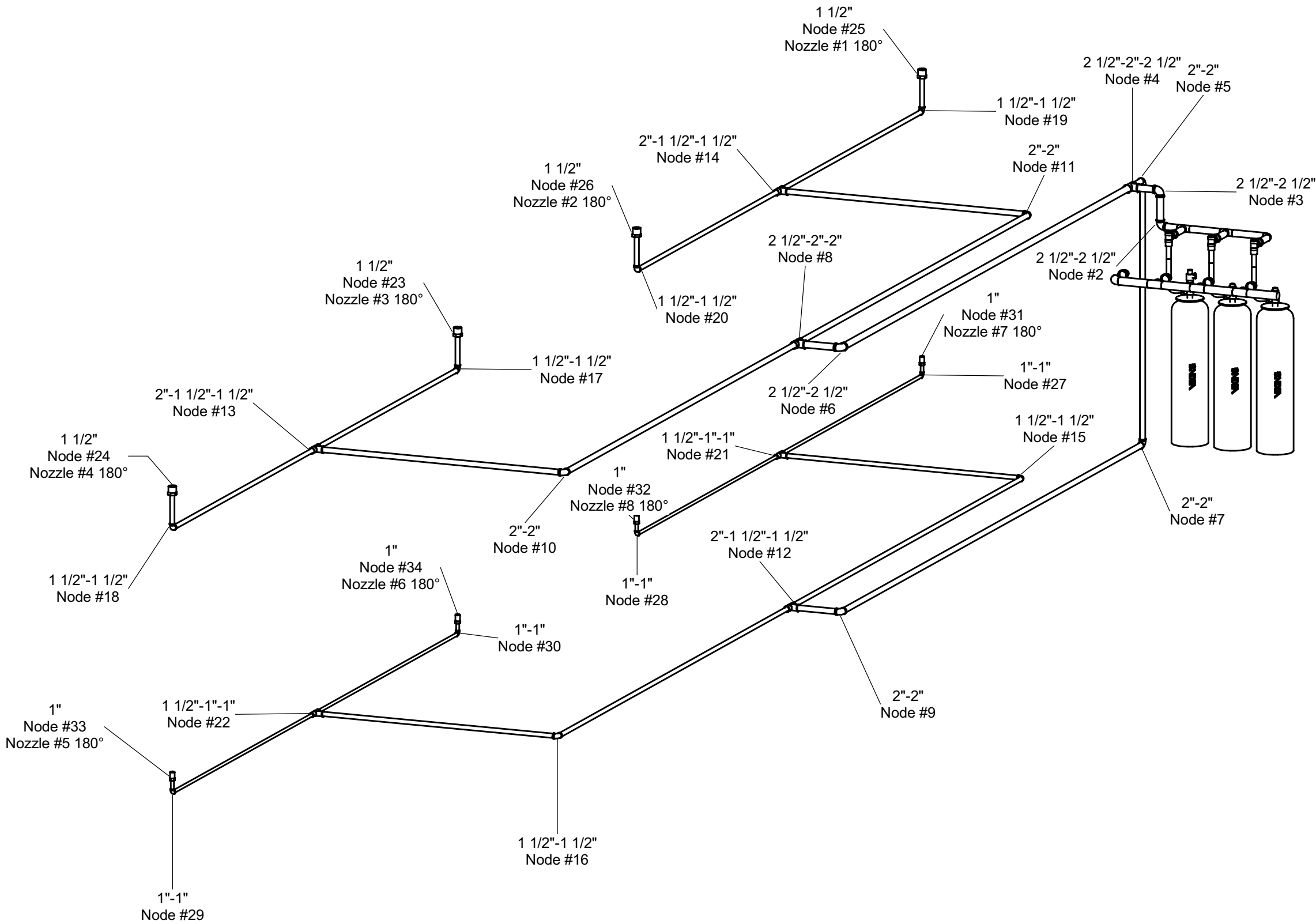
Riser Diagram

Sheet Number

FS601

BOD Item 2G, Attach. 3, Page 393

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#### Project Specifications

Customer	OCFA
Project Name	2000X101
Date	11/01/2021
Address	1 Fire Authority Irvine, CA
User	P2S Inc.
Project Number	21-0371
Protected Area	TEL / EQUIPMENT ROOM B 121

#### System Details

Agent	Noted: 1230 (PR-5-1-12)
Pressure	725 psi
Discharge Temp	10 sec
Discharge Concentration	8.7%
Altitude	80 ft
Codebook	NFPA
Approval	NA
Pipe Schedule	ASTM A312M40
Nozzle Type	NOZMA NPT/ANSI
Total pipe volume	41.35 gallons

#### Hydraulic Calculation Version

DesignManager - MX1230 V.1.1 UL EX 5248 - MX 1230/MX 200 FM: 3035914-MX 1230 / 3035931-MX 200

#### Calculation Messages

Calculation finished successfully, with no errors found by calculation software.

#### Quantity Calculation

Room Name/Room ID	Length [ft]	Width [ft]	Height [ft]	Volume [ft³]	Revisions [ft³]	Total Volume [ft³]	Concentration [%]	Room Temperature [°F]	Required Quantity [lb]	Extra [lb]	Total Agent Quantity [lb]
Room B121 / Main	42.02	42.02	10	1788.45		21788.45	4.7	70	894.96		924.96
Room B121 / Floor	42.02	42.02	11	1766.54		1766.54	4.7	70	75.4		75.4
Total				22555.0		22555.0			970.37		970.37

#### Container

Part Number	Volume [ft³]	Pressure [psi]	Fill quantity [lb]	Value	Fill ratio [lb/ft³]	Quantity	Req. Agent quantity [lb]	Tot. Agent quantity [lb]	Room Temperature [°F]
885010	6.55544	725	331	0445	53.03	3	970.37	1011	70

#### Pipe System

Starting Node	Ending Node	Pipe Diameter [in]	Length [ft]	Direction	System Part	Component	Flow Rate [l/s]	Starting Pressure [psi]	Ending Pressure [psi]	Nozzle No.
1	2	2 1/2	4.27	-K	Container	Container	97.97	323.2	310.0	
3	4	2 1/2	1.34	-K	Manifold	Elbow	97.97	277.0	277.0	
5	6	2 1/2	1.17	-K	Downstream	Elbow	97.97	277.0	272.2	
7	8	2 1/2	1.17	-K	Downstream	Bulk-Tree	97.97	272.2	268.6	
9	10	2 1/2	1.17	-K	Downstream	Elbow	39.18	268.6	264.9	
11	12	2 1/2	27.34	-Y	Downstream	Elbow	39.18	264.9	260.0	
13	14	2 1/2	9.81	-Z	Downstream	Elbow	39.18	260.0	255.1	
15	16	2 1/2	1.74	-K	Downstream	Bulk-Tree	39.18	255.1	250.0	
17	18	2 1/2	21.87	-K	Downstream	Elbow	39.18	250.0	245.0	
19	20	2 1/2	21.87	-Y	Downstream	Elbow	39.18	245.0	240.0	
21	22	2 1/2	21.87	-Y	Downstream	Elbow	39.18	240.0	235.0	
23	24	2 1/2	21.87	-K	Downstream	Bulk-Tree	39.19	235.0	230.0	
25	26	2 1/2	21.87	-K	Downstream	Elbow	39.19	230.0	225.0	
27	28	2 1/2	21.87	-K	Downstream	Elbow	39.19	225.0	220.0	
29	30	2 1/2	21.87	-K	Downstream	Elbow	39.19	220.0	215.0	
31	32	2 1/2	21.87	-K	Downstream	Elbow	39.19	215.0	210.0	
33	34	2 1/2	21.87	-K	Downstream	Elbow	39.19	210.0	205.0	
35	36	2 1/2	21.87	-K	Downstream	Elbow	39.19	205.0	200.0	
37	38	2 1/2	21.87	-K	Downstream	Elbow	39.19	200.0	195.0	
39	40	2 1/2	21.87	-K	Downstream	Elbow	39.19	195.0	190.0	
41	42	2 1/2	21.87	-K	Downstream	Elbow	39.19	190.0	185.0	
43	44	2 1/2	21.87	-K	Downstream	Elbow	39.19	185.0	180.0	
45	46	2 1/2	21.87	-K	Downstream	Elbow	39.19	180.0	175.0	
47	48	2 1/2	21.87	-K	Downstream	Elbow	39.19	175.0	170.0	
49	50	2 1/2	21.87	-K	Downstream	Elbow	39.19	170.0	165.0	
51	52	2 1/2	21.87	-K	Downstream	Elbow	39.19	165.0	160.0	
53	54	2 1/2	21.87	-K	Downstream	Elbow	39.19	160.0	155.0	
55	56	2 1/2	21.87	-K	Downstream	Elbow	39.19	155.0	150.0	
57	58	2 1/2	21.87	-K	Downstream	Elbow	39.19	150.0	145.0	
59	60	2 1/2	21.87	-K	Downstream	Elbow	39.19	145.0	140.0	
61	62	2 1/2	21.87	-K	Downstream	Elbow	39.19	140.0	135.0	
63	64	2 1/2	21.87	-K	Downstream	Elbow	39.19	135.0	130.0	
65	66	2 1/2	21.87	-K	Downstream	Elbow	39.19	130.0	125.0	
67	68	2 1/2	21.87	-K	Downstream	Elbow	39.19	125.0	120.0	
69	70	2 1/2	21.87	-K	Downstream	Elbow	39.19	120.0	115.0	
71	72	2 1/2	21.87	-K	Downstream	Elbow	39.19	115.0	110.0	
73	74	2 1/2	21.87	-K	Downstream	Elbow	39.19	110.0	105.0	
75	76	2 1/2	21.87	-K	Downstream	Elbow	39.19	105.0	100.0	
77	78	2 1/2	21.87	-K	Downstream	Elbow	39.19	100.0	95.0	
79	80	2 1/2	21.87	-K	Downstream	Elbow	39.19	95.0	90.0	
81	82	2 1/2	21.87	-K	Downstream	Elbow	39.19	90.0	85.0	
83	84	2 1/2	21.87	-K	Downstream	Elbow	39.19	85.0	80.0	
85	86	2 1/2	21.87	-K	Downstream	Elbow	39.19	80.0	75.0	
87	88	2 1/2	21.87	-K	Downstream	Elbow	39.19	75.0	70.0	
89	90	2 1/2	21.87	-K	Downstream	Elbow	39.19	70.0	65.0	
91	92	2 1/2	21.87	-K	Downstream	Elbow	39.19	65.0	60.0	
93	94	2 1/2	21.87	-K	Downstream	Elbow	39.19	60.0	55.0	
95	96	2 1/2	21.87	-K	Downstream	Elbow	39.19	55.0	50.0	
97	98	2 1/2	21.87	-K	Downstream	Elbow	39.19	50.0	45.0	
99	100	2 1/2	21.87	-K	Downstream	Elbow	39.19	45.0	40.0	
101	102	2 1/2	21.87	-K	Downstream	Elbow	39.19	40.0	35.0	
103	104	2 1/2	21.87	-K	Downstream	Elbow	39.19	35.0	30.0	
105	106	2 1/2	21.87	-K	Downstream	Elbow	39.19	30.0	25.0	
107	108	2 1/2	21.87	-K	Downstream	Elbow	39.19	25.0	20.0	
109	110	2 1/2	21.87	-K	Downstream	Elbow	39.19	20.0	15.0	
111	112	2 1/2	21.87	-K	Downstream	Elbow	39.19	15.0	10.0	
113	114	2 1/2	21.87	-K	Downstream	Elbow	39.19	10.0	5.0	
115	116	2 1/2	21.87	-K	Downstream	Elbow	39.19	5.0	0.0	
117	118	2 1/2	21.87	-K	Downstream	Elbow	39.19	0.0	-5.0	
119	120	2 1/2	21.87	-K	Downstream	Elbow	39.19	-5.0	-10.0	
121	122	2 1/2	21.87	-K	Downstream	Elbow	39.19	-10.0	-15.0	
123	124	2 1/2	21.87	-K	Downstream	Elbow	39.19	-15.0	-20.0	
125	126	2 1/2	21.87	-K	Downstream	Elbow	39.19	-20.0	-25.0	
127	128	2 1/2	21.87	-K	Downstream	Elbow	39.19	-25.0	-30.0	
129	130	2 1/2	21.87	-K	Downstream	Elbow	39.19	-30.0	-35.0	
131	132	2 1/2	21.87	-K	Downstream	Elbow	39.19	-35.0	-40.0	
133	134	2 1/2	21.87	-K	Downstream	Elbow	39.19	-40.0	-45.0	
135	136	2 1/2	21.87	-K	Downstream	Elbow	39.19	-45.0	-50.0	
137	138	2 1/2	21.87	-K	Downstream	Elbow	39.19	-50.0	-55.0	
139	140	2 1/2	21.87	-K	Downstream	Elbow	39.19	-55.0	-60.0	
141	142	2 1/2	21.87	-K	Downstream	Elbow	39.19	-60.0	-65.0	
143	144	2 1/2	21.87	-K	Downstream	Elbow	39.19	-65.0	-70.0	
145	146	2 1/2	21.87	-K	Downstream	Elbow	39.19	-70.0	-75.0	
147	148	2 1/2	21.87	-K	Downstream	Elbow	39.19	-75.0	-80.0	
149	150	2 1/2	21.87	-K	Downstream	Elbow	39.19	-80.0	-85.0	
151	152	2 1/2	21.87	-K	Downstream	Elbow	39.19	-85.0	-90.0	
153	154	2 1/2	21.87	-K	Downstream	Elbow	39.19	-90.0	-95.0	
155	156	2 1/2	21.87	-K	Downstream	Elbow	39.19	-95.0	-100.0	
157	158	2 1/2	21.87	-K	Downstream	Elbow	39.19	-100.0	-105.0	
159	160	2 1/2	21.87	-K	Downstream	Elbow	39.19	-105.0	-110.0	
161	162	2 1/2	21.87	-K	Downstream	Elbow	39.19	-110.0	-115.0	
163	164	2 1/2	21.87	-K	Downstream	Elbow	39.19	-115.0	-120.0	
165	166	2 1/2	21.87	-K	Downstream	Elbow	39.19	-120.0	-125.0	
167	168	2 1/2	21.87	-K	Downstream	Elbow	39.19	-125.0	-130.0	
169	170	2 1/2	21.87	-K	Downstream	Elbow	39.19	-130.0	-135.0	
171	172	2 1/2	21.87	-K	Downstream	Elbow	39.19	-135.0	-140.0	
173	174	2 1/2	21.87	-K	Downstream	Elbow	39.19	-140.0	-145.0	
175	176	2 1/2	21.87	-K	Downstream	Elbow	39.19	-145.0	-150.0	
177	178	2 1/2	21.87	-K	Downstream	Elbow	39.19	-150.0	-155.0	
179	180	2 1/2	21.87	-K	Downstream	Elbow	39.19	-155.0	-160.0	
181	182	2 1/2	21.87	-K	Downstream	Elbow	39.19	-160.0	-165.0	
183	184	2 1/2	21.87	-K	Downstream	Elbow	39.19	-165.0	-170.0	
185	186	2 1/2	21.87	-K	Downstream	Elbow	39.19	-170.0	-175.0	
187	188	2 1/2	21.87	-K	Downstream	Elbow	39.19	-175.0	-180.0	
189	190	2 1/2	21.87	-K	Downstream	Elbow	39.19	-180.0	-185.0	
191	192	2 1/2	21.87	-K	Downstream	Elbow	39.19	-185.0	-190.0	
193	194	2 1/2	21.87	-K	Downstream	Elbow	39.19	-190.0	-195.0	
195	196	2 1/2	21.87	-K	Downstream	Elbow	39.19	-195.0	-200.0	
197	198	2 1/2	21.87	-K	Downstream	Elbow	39.19	-200.0	-205.0	
199	200	2 1/2	21.87	-K	Downstream	Elbow	39.19	-205.0	-210.0	
201	202	2 1/2	21.87	-K	Downstream	Elbow	39.19	-210.0	-215.0	
203	204	2 1/2	21.87	-K	Downstream	Elbow	39.19	-215.0	-220.0	
205	206	2 1/2	21.87	-K	Downstream	Elbow	39.19	-220.0	-225.0	
207	208	2 1/2	21.87	-K	Downstream	Elbow	39.19	-225.0	-230.0	
209	210	2 1/2	21.87	-K	Downstream	Elbow	39.19	-230.0	-235.0	
211	212	2 1/2	21.87	-K	Downstream	Elbow	39.19	-235.0	-240.0	
213	214	2 1/2	21.87	-K	Downstream	Elbow	39.19	-240.0	-245.0	
215	216	2 1/2	21.87	-K	Downstream	Elbow	39.19	-245.0	-250.0	
217	218	2 1/2	21.87	-K	Downstream	Elbow	39.19	-250.0	-255.0	
219	220	2 1/2	21.87	-K	Downstream	Elbow	39.19	-255.0	-260.0	
221	222	2 1/2	21.87	-K	Downstream	Elbow	39.19	-260.0	-265.0	
223	224	2 1/2	21.87	-K	Downstream	Elbow	39.19	-265.0	-270.0	
225	226	2 1/2	21.87	-K	Downstream	Elbow	39.19	-270.0	-275.0	
227	228	2 1/2	21.87	-K	Downstream	Elbow	39.19	-275.0	-280.0	
229	230	2 1/2	21.87	-K	Downstream	Elbow	39.19	-280.0	-285.0	
231	232	2 1/2	21.87	-K	Downstream	Elbow	39.19	-285.0	-290.0	
233	234	2 1/2	21.87	-K	Downstream	Elbow	39.19	-290.0	-295.0	
235	236	2 1/2	21.87	-K	Downstream	Elbow	39.19	-295.0	-300.0	
237	238	2 1/2	21.87	-K	Downstream	Elbow	39.19	-300.0	-305.0	
239	240	2 1/2	21.87	-K	Downstream	Elbow	39.19	-305.0	-310.0	
241	242	2 1/2	21.87	-K	Downstream	Elbow	39.19	-310.0	-315.0	
243	244	2 1/2	21.87	-K	Downstream	Elbow	39.19	-315.0	-320.0	
245	246	2 1/2	21.87	-K	Downstream	Elbow	39.19	-320.0	-325.0	
247	248	2 1/2	21.87	-K	Downstream	Elbow	39.19	-325.0	-330.0	
249	250	2 1/2	21.87	-K	Downstream	Elbow	39.19	-330.0	-335.0	
251	252	2 1/2	21.87	-K	Downstream	Elbow	39.19	-335.0	-340.0	
253	254	2 1/2	21.87	-K	Downstream	Elbow	39.19	-340.0	-345.0	
255	256	2 1/2	21.87	-K	Downstream	Elbow	39.19	-345.0	-350.0	
257	258	2 1/2	21.87	-K	Downstream	Elbow	39.19	-350.0	-355.0	
259	260	2 1/2	21.87	-K	Downstream	Elbow	39.19	-355.0	-360.0	
261	262	2 1/2	21.87	-K	Downstream	Elbow	39.19	-360.0	-365.0	
263	264	2 1/2	21.87	-K	Downstream	Elbow	39.19	-365.0	-370.0	
265	266	2 1/2	21.87	-K	Downstream	Elbow	39.19	-370.0	-375	

# Detector : Proposed Design

Type	VSP
Sensitivity Objective	ASPR, SPD
Endcap Usage	Create a Balanced Design
Application Defaults	default
Aspirator Speed	4
Air Temperature	68.9°F
Absolute Pressure	1013.62
System Flowrate	1160.0000
Total Pipe Length	344.7'
Number Of Sample Points	25
Maximum Transport Time	120sec
Maximum Allowed TT	120sec
Minimum Hole Flow Rate	2.0000
Exhaust Length	0
Exhaust Diameter	0.874
Exhaust Pressure Drop	0.00
Invert	N/A

## Thresholds

Safety Factor (% reduction in alarm threshold) 0%				
	Alert	Action	Fire 1	Fire 2
Recommended Thresholds (%/ft)	0.0089	0.0209	0.0348	0.0970
Smoke at least sensitive hole (%/ft)	0.2000	0.6000	1.0000	2.5000

## Group Details

	Hole Sensitivity	Flow	Pressure	Transport Time	Hole Diameter	Default Group
Aggregate across Sensitivity						0
Group Type						
Min. Target Aggregate Sensitivity						
Max. Target Aggregate Sensitivity						
Combinatoric (AND/OR)						
Apply Min. Aggregate Sensitivity						
Apply Max. Aggregate Sensitivity						
Target System Diameter						25
Target Distance						70
Exclude from AutoBalance						
1.Section0-1	0.0000	4.0	124	17	0.8"	✓
1.Section0-2	0.0003	4.0	124	19	0.8"	✓
1.Section0-3	0.0717	4.0	124	20	0.8"	✓
1.Section0-4	0.0717	4.0	124	22	0.8"	✓
2.Section1.1-1	0.0000	4.0	110	13	0.8"	✓
2.Section1.2-1	0.0004	4.0	110	15	0.8"	✓
2.Section1.3-1	0.0149	4.0	110	19	0.8"	✓
2.Section1.4-1	0.0135	4.0	110	23	0.8"	✓
2.Section1.5-1	0.0001	4.0	110	25	0.8"	✓
2.Section2-1	0.0000	4.0	100	9	0.8"	✓
2.Section3-1	0.0000	4.0	100	19	0.8"	✓
2.Section4-1	0.0432	4.0	100	23	0.8"	✓
2.Section5-1	0.0405	4.0	100	28	0.8"	✓
2.Section6-1	0.0011	4.0	100	30	0.8"	✓
3.Section0-1	0.0007	4.0	110	2	0.8"	✓
3.Section1-2	0.0151	4.0	110	12	0.8"	✓
3.Section1-3	0.0271	4.0	100	19	0.8"	✓
3.Section1-4	0.0004	4.0	100	27	0.8"	✓
3.Section1-5	0.0000	4.0	100	31	0.8"	✓
3.Section0-1	0.0005	4.0	110	14	0.8"	✓
3.Section2-2	0.0003	4.0	100	31	0.8"	✓
3.Section0-3	0.0000	4.0	110	37	0.8"	✓
4.Section0-1	0.0405	4.0	100	17	0.8"	✓
4.Section0-2	0.0001	4.0	100	19	0.8"	✓
4.Section0-3	0.0000	4.0	100	25	0.8"	✓
4.Section0-4	0.0000	4.0	100	29	0.8"	✓
Number of Holes						25
Flow Share(%)						100
Aggregate Sensitivity						0.01
Return(%)						100
Section Pressure (bars)						

## Section1.4

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section1.4-1	Bend 90	37' 6"	L	0.8"									
2.Section1.4-2	Hole	38' 0"	L	0.8"	1.0"	23	110	4.0	2.0	0.0000	0.874		
2.Section1.4-3	Endcap	38' 6"	L	0.8"	0"								0.874

## Section1.5

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section1.5-1	Bend 90	45' 0"	L	0.8"									
2.Section1.5-2	Hole	45' 6"	L	0.8"	1.0"	19	110	4.0	2.0	0.0000	0.874		
2.Section1.5-3	Endcap	46' 0"	L	0.8"	0"								0.874

## Section2

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section2-1	Bend 90	27' 6"	L	0.8"									
2.Section2-2	Hole	28' 2"	L	0.8"	1.0"	15	110	4.0	2.0	0.0000	0.874		
2.Section2-3	Endcap	28' 8"	L	0.8"	0"								0.874

## Section3

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section3-1	Bend 90	26' 0"	L	0.8"									
2.Section3-2	Hole	27' 2"	L	0.8"	1.0"	15	110	4.0	2.0	0.0000	0.874		
2.Section3-3	Endcap	27' 8"	L	0.8"	0"								0.874

## Section4

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section4-1	Bend 90	42' 0"	L	0.8"									
2.Section4-2	Hole	42' 2"	L	0.8"	1.0"	22	110	4.0	2.0	0.0000	0.874		
2.Section4-3	Endcap	42' 8"	L	0.8"	0"								0.874

## Section5

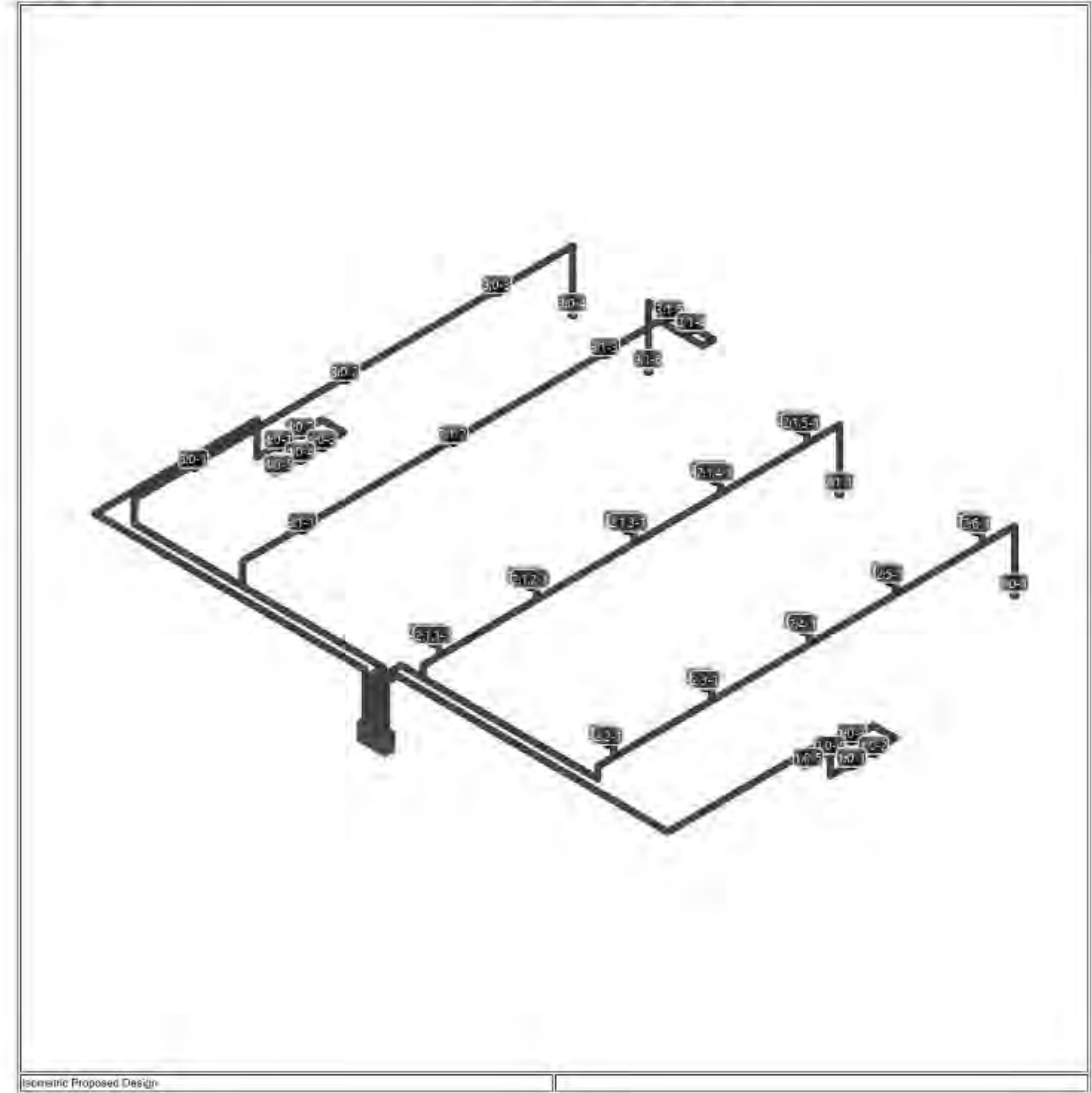
#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section5-1	Bend 90	52' 0"	L	0.8"									
2.Section5-2	Hole	52' 2"	L	0.8"	1.0"	25	110	4.0	2.0	0.0000	0.874		
2.Section5-3	Endcap	52' 8"	L	0.8"	0"								0.874

## Section6

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section6-1	Bend 90	67' 0"	L	0.8"									
2.Section6-2	Hole	67' 2"	L	0.8"	1.0"	30	110	4.0	2.0	0.0000	0.874		
2.Section6-3	Endcap	67' 8"	L	0.8"	0"								0.874

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ASPRR Installation Data Pack 1 complete



## Pipe:Pipe 1

Total Pipe Length	371
Ambient Pressure	0Pa
Section Pressure	11.750
Number of Sample Points	1
Pipe Flowrate	11.0000

## Section0

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
1.Section0-1	Bend 90	4	L	0.8"									
1.Section0-2	Bend 90	5	L	0.8"									
1.Section0-3	Bend 90	30	L	0.8"									
1.Section0-4	Bend 90	45	L	0.8"									
1.Section0-5	Bend 90	49	L	0.8"									
1.Section0-6	Hole	50	L	0.8"	1.0"	17	130	4.0	4.0	0.0000	0.874		
1.Section0-7	Hole	52	L	0.8"	1.0"	19	130	4.0	4.0	0.0000	0.874		
1.Section0-8	Bend 90	54	L	0.8"									
1.Section0-9	Bend 90	56	L	0.8"									
1.Section0-10	Hole	57	L	0.8"	1.0"	24	130	4.0	4.0	0.0000	0.874		
1.Section0-11	Hole	59	L	0.8"	1.0"	27	130	4.0	4.0	0.0000	0.874		
1.Section0-12	Endcap	62	L	0.8"	0"								0.874

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## Pipe:Pipe 3

Total Pipe Length	113
Ambient Pressure	0Pa
Section Pressure	11.750
Number of Sample Points	3
Pipe Flowrate	3.0000

## Section0

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
3.Section0-1	Bend 90	4	L	0.8"									
3.Section0-2	Bend 90	5	L	0.8"									
3.Section0-3	Branch	10	L	0.8"									
3.Section0-4	Bend 90	20	L	0.8"									
3.Section0-5	Bend 90	30	L	0.8"									
3.Section0-6	Hole	36' 0"	L	0.8"	1.0"	14	110	4.0	2.0	0.0000	0.874		
3.Section0-7	Hole	42' 0"	L	0.8"	1.0"	19	110	4.0	2.0	0.0000	0.874		
3.Section0-8	Hole	67' 0"	L	0.8"	1.0"	31	110	4.0	2.0	0.0000	0.874		
3.Section0-9	Bend 90	70' 0"	L	0.8"									
3.Section0-10	Test Point	75' 0"	L	0.8"									0.874

## Section1

#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
3.Section1-1	Bend 90	20	L	0.8"									
3.Section1-2	Hole	36' 0"	L	0.8"	1.0"	14	110	4.0	2.0	0.0000	0.874		
3.Section1-3	Hole	39' 0"	L	0.8"	1.0"	17	110	4.0	2.0	0.0000	0.874		
3.Section1-4	Hole	53' 0"	L	0.8"	1.0"	31	110	4.0	2.0	0.0000	0.874		
3.Section1-5	Bend 90	56' 0"	L	0.8"									
3.Section1-6	Bend 90	62' 0"	L	0.8"									
3.Section1-7	Bend 90	63' 0"	L	0.8"									
3.Section1-8	Hole	85' 0"	L	0.8"	1.0"	47	110	4.0	2.0	0.0000	0.874		
3.Section1-9	Hole	87' 0"	L	0.8"	1.0"	51	110	4.0	2.0	0.0000	0.874		
3.Section1-10	Bend 90	88' 0"	L	0.8"									
3.Section1-11	Test Point	94' 0"	L	0.8"									0.874

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ASPRR Installation Data Pack 1 complete

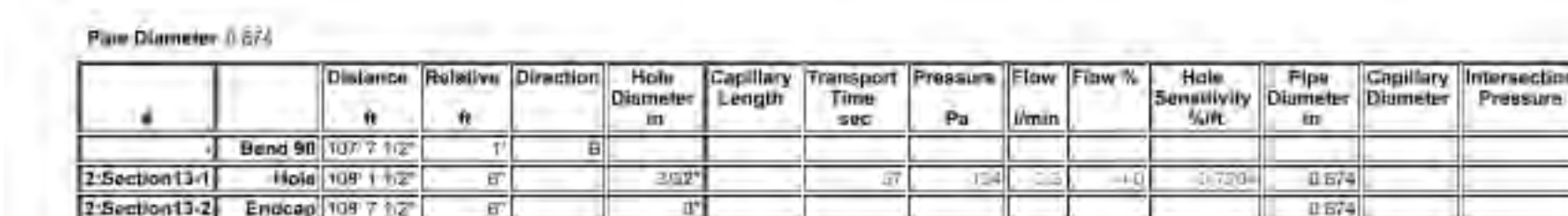
## Pipe:Pipe 2

Total Pipe Length	118.0
Ambient Pressure	0Pa
Section Pressure	11.750
Number of Sample Points	3
Pipe Flowrate	3.0000

## Section0

Pipe Diameter 0.875													
#	Distance	Relative	Direction	Hole Diameter	Capillary Length	Transport Time	Pressure	Flow	Flow %	Hole Sensitivity	Pipe Diameter in	Capillary Diameter	Intersection Pressure
	ft	ft		in	ft	sec	Pg	l/min		%R	in	in	
2.Section0-1	Bend 90	4	L	0.8"									
-	Bend 90	5	R	0.8"									
-	Branch	8"	L	0.8"									
-	Bend 90	14 2"	L	0.8"									
-	Bend 90	20 2"	L	0.8"									
-	Drop Pipe	25 0"	L	0.8"									
-	Drop Pipe	35 0"	L	0.8"									
-	Drop Pipe	44 0"	L	0.8"									
-	Drop Pipe	52 0"	L	0.8"									
-	Drop Pipe	60 0"	L	0.8"									
-	Bend 90	62 0"	L	0.8"									
2.Section0-1	Test Point	68 0"		0.8"			-20	-100	0.7	-0.0	0.875		
* Test Point is not a Sample Hole, and does not form part of the detection system. Test Points are used only during commissioning to pressure transmit time and then only once as a time. The Test Point must be blocked during normal operation.													

#	Distance ft	Relative t	Direction	Hole Diameter in	Capillary Length	Transport Time sec	Pressure Pa	Flow mm	Time %	Hole Sensitivity μft	Pipe Diameter in	Capillary Diameter	Intersection Pressure
Send 90	67 ft	3	S										
2-Section-1-Hole	62 ft	8"		3/22"		-25	-38	3-4	-4.0	0.7108	0.874		
2-Section-2-Endcap	62 ft	8"		8"							0.874		



Pipe Diameter: 0.674													
#	Distance ft	Relative ft	Direction	Hole Diameter in	Capillary Length	Transport Time sec	Pressure Pa	Flow Units	Flow %	Isot Sensitivity %R	Pipe Diameter in	Capillary Diameter	Intersection Pressure
-	Band 30	4	4	4									
-	Band 30	10	6	20									
-	Band 30	16	4	1									
3:Section0- 1	Hole	12	9	104			-229	-995	7.4	0.3608	0.674		
3:Section0- 2	Hole	16	9	104		10	-339	-995	7.7	0.3739	0.674		
3:Section0- 3	Hole	17	9	104			-382	-995	7.7	0.3703	0.674		
3:Section0- 4	Test Point	19	2	104		11	-315	7.4	-0.5		0.674		

1: First Point is end of 2: Section hole, and does not form part of the detection system. First Points are used only during commissioning to measure transport time and time only one at a time.  
The Test Point must be located directly ahead of the hole.



## OCFA-Clean Agent Fire Suppression System



1 Fire Authority Road  
Irvine, CA 92602



Revisions		
Number	Description	Date

[illegible]

Designed	A Jimenez
Drawn	A Jimenez
Checked	T Ijaz
Approved	T Ijaz

Date November 1, 2021

Submittal Plan Check

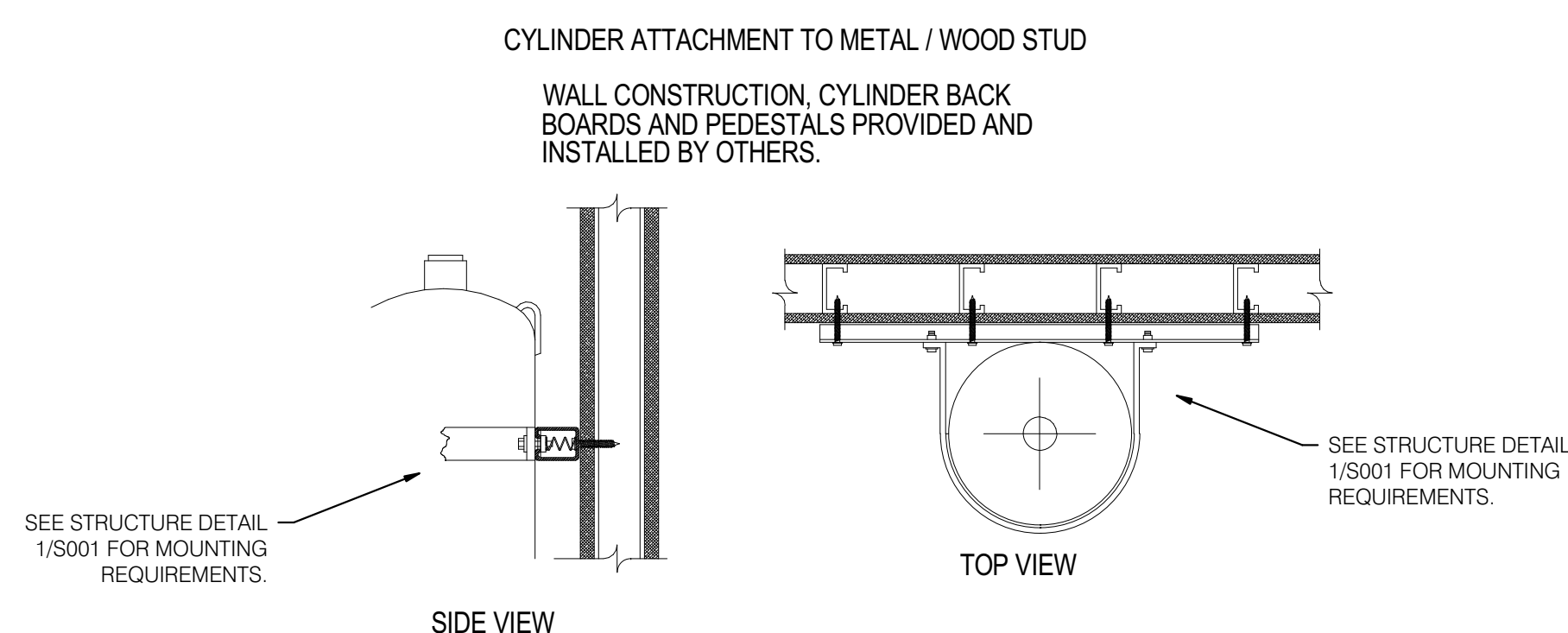
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Sheet Title

### Details

Sheet Number

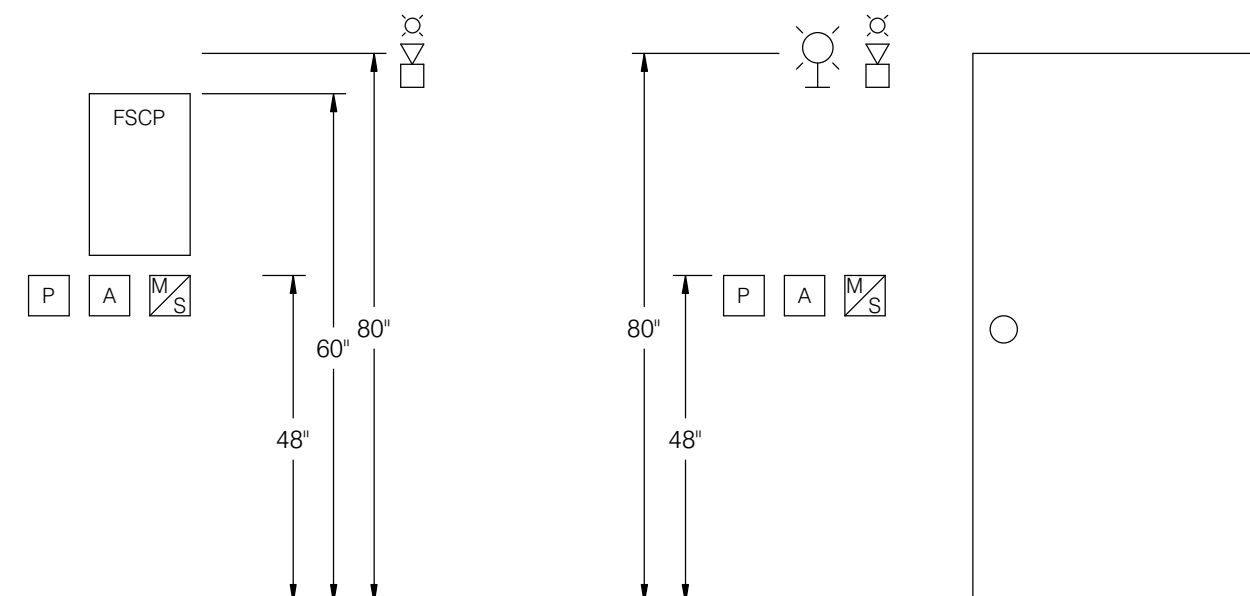
FS607



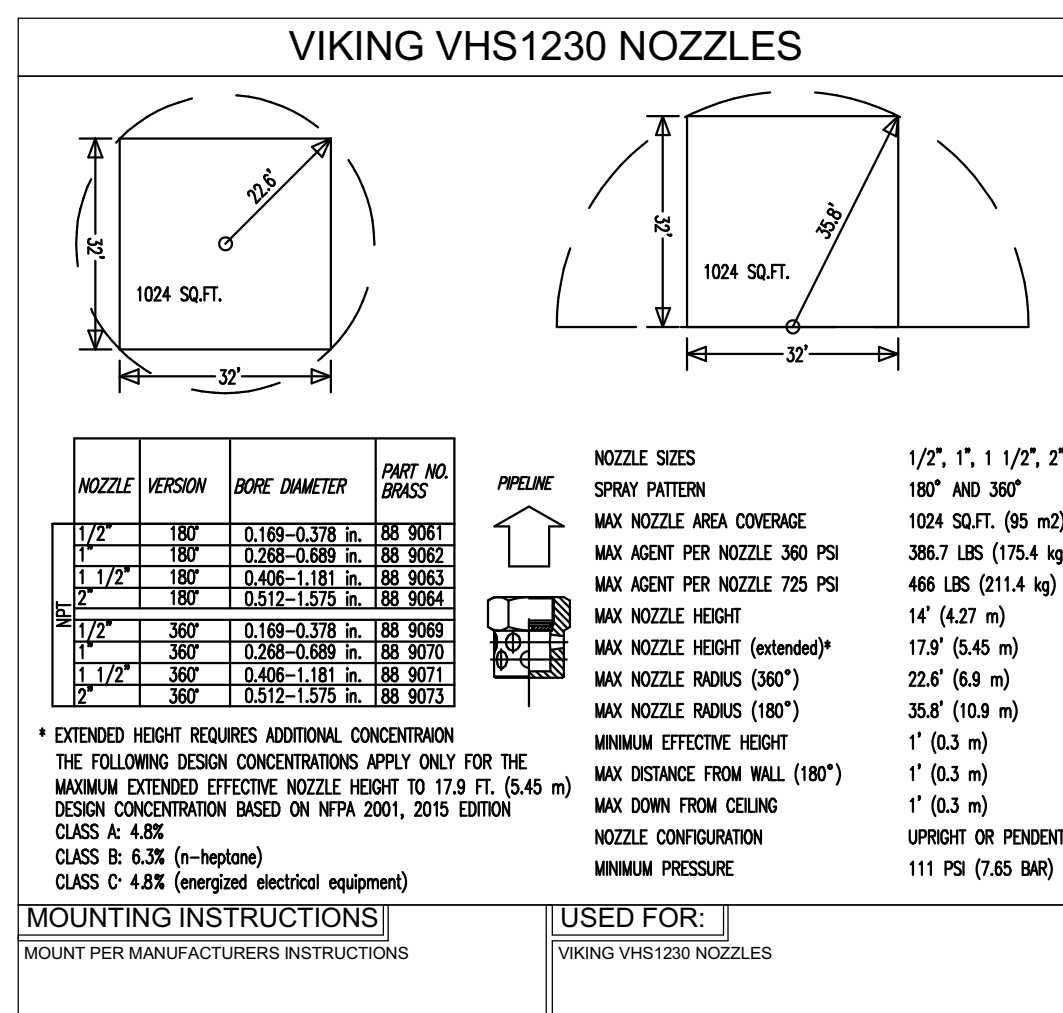
## 6 CLEAN AGENT CYLINDER MOUNTING DETAIL

INSTALLATION NOTE:

THE INFORMATION SHOWN ON THIS DRAWING IS FOR REFERENCE PURPOSES ONLY. ITS INTENT IS TO PROVIDE THE SYSTEM INSTALLER WITH THE NECESSARY INFORMATION AS TO HOW TO WIRE FIELD DEVICES. ACTUAL CONDUIT ROUTING, CIRCUIT DIVISION, & FIELD DEVICE LOCATIONS SHALL BE DETERMINED BY THE SYSTEM INSTALLER IN THE FIELD. REFER TO ALL INSTALLATION DOCUMENTATION PROVIDED WITH DEVICE FOR PROPER INSTALLATION. REFER TO RISER DIAGRAM FOR DEVICE QUANTITIES.



## 5 FIRE PROTECTION DEVICE MOUNTING DETAIL



4 VIKING VHS1230 NOZZLES  
NO SCALE

## PIPING MATERIALS

Piping materials must conform to the requirements as outlined in NFPA 2001, latest edition. The thickness of the piping wall shall be calculated in accordance with ASME B31.1 Power Piping Code.

Caution: Cast iron pipe, steel pipe conforming to ASTM A120, or nonmetallic pipe shall not be used.

The following piping materials and configurations are acceptable:  
Schedule 40 Threaded, Welded & Grooved Schedule 80  
Threaded & Welded

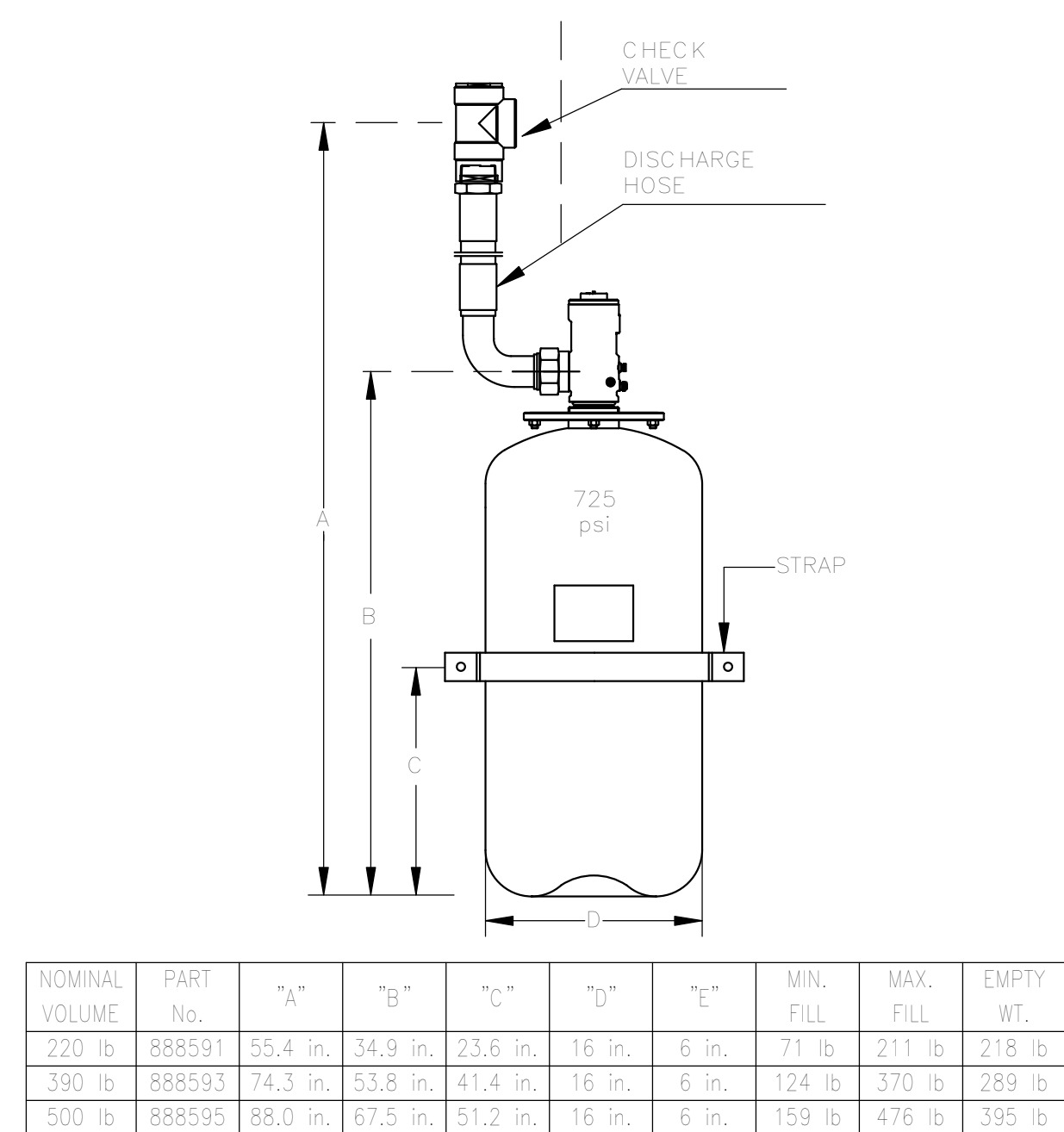
The following piping types and grades are acceptable for pipe configurations utilizing threaded, welded or grooved end connections:

Pipe Schedule	NPS Pipe Size	Wall Thickness	Grade / Type					
			A-106C	A-53B A-106B	A-63B	A-53A A-106A	A-53A	A-53F
			Seamless	Seamless	ERW	Seamless	ERW	Furnace
40	3/8	0.091	✓	✓	✓	✓	✓	✓
	1/2	0.109	✓	✓	✓	✓	✓	✓
	3/4	0.113	✓	✓	✓	✓	✓	✓
	1	0.133	✓	✓	✓	✓	✓	✓
	1 1/4	0.140	✓	✓	✓	✓	✓	✓
	1 1/2	0.145	✓	✓	✓	✓	✓	✓
			✓	✓	✓	✓	✓	✓

### 3 ACCEPTABLE PIPING CHART

TABLE A.5.5.1(a) (K)-5.1-12 TOTAL FLOODING QUANTITY (US UNITS)										
WEIGHT REQUIREMENTS OF HAZARDOUS VOLUME, Wt (lb) <sup>1,3</sup>										
TEMP (°F)	SPECIFIC VAPOR VOLUME (ft <sup>3</sup> /lb)	DESIGN CONCENTRATION (% BY VOLUME) <sup>2</sup>								
		3	4	5	6	7	8	9	10	
-20	0.93678	0.0330	0.0445	0.0562	0.0681	0.0803	0.0928	0.1056	0.1186	
-10	0.96119	0.0322	0.0433	0.0548	0.0664	0.0783	0.0905	0.1029	0.1156	
0	0.98560	0.0314	0.0423	0.0534	0.0648	0.0764	0.0882	0.1003	0.1127	
10	0.10101	0.0306	0.0413	0.0521	0.0632	0.0745	0.0861	0.0979	0.1100	
20	0.10342	0.0299	0.0403	0.0509	0.0617	0.0728	0.0841	0.0956	0.1074	
30	0.10583	0.0292	0.0394	0.0497	0.0603	0.0711	0.0821	0.0934	0.1049	
40	0.108324	0.0286	0.0385	0.0486	0.0589	0.0695	0.0803	0.0913	0.1029	
50	0.110765	0.0279	0.0376	0.0475	0.0576	0.0680	0.0785	0.0893	0.1003	
60	0.113206	0.0273	0.0368	0.0465	0.0564	0.0665	0.0768	0.0874	0.0981	
70	0.115647	0.0267	0.0360	0.0455	0.0552	0.0651	0.0752	0.0855	0.0961	
80	0.118088	0.0262	0.0353	0.0446	0.0541	0.0637	0.0736	0.0838	0.0941	
90	0.120529	0.0257	0.0346	0.0437	0.0530	0.0624	0.0721	0.0821	0.0922	
100	0.122970	0.0252	0.0339	0.0428	0.0519	0.0612	0.0707	0.0804	0.0904	
110	0.125411	0.0247	0.0332	0.0420	0.0509	0.0600	0.0693	0.0789	0.0886	
120	0.127852	0.0242	0.0326	0.0412	0.0499	0.0589	0.0680	0.0774	0.0869	

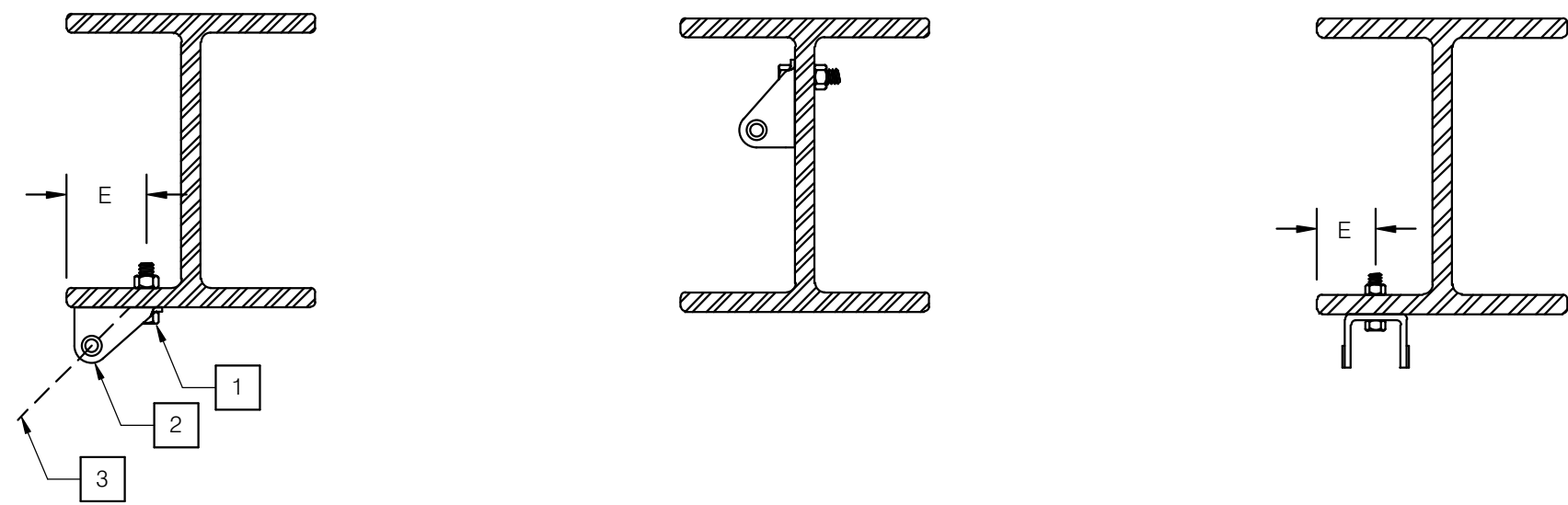
2 AGENT FLOODING QUANTITY  
NO SCALE



1 VSH1230 725 PSI CONTAINER, DISCHARGE HOSE  
NO SCALE



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BOLT DIA.	MAX. HORIZONTAL SEISMIC LOAD W/ BRACE @ 45° FROM VERTICAL (Lbs.)	"E" MIN. EDGE DISTANCE
3/8"	500	1"
1/2"	800	1"
5/8"	1200	1 1/2"
3/4"	1970*	1 1/2"

\*LOAD GOVERNED BY TOLCO 900 SERIES ATTACHMENT

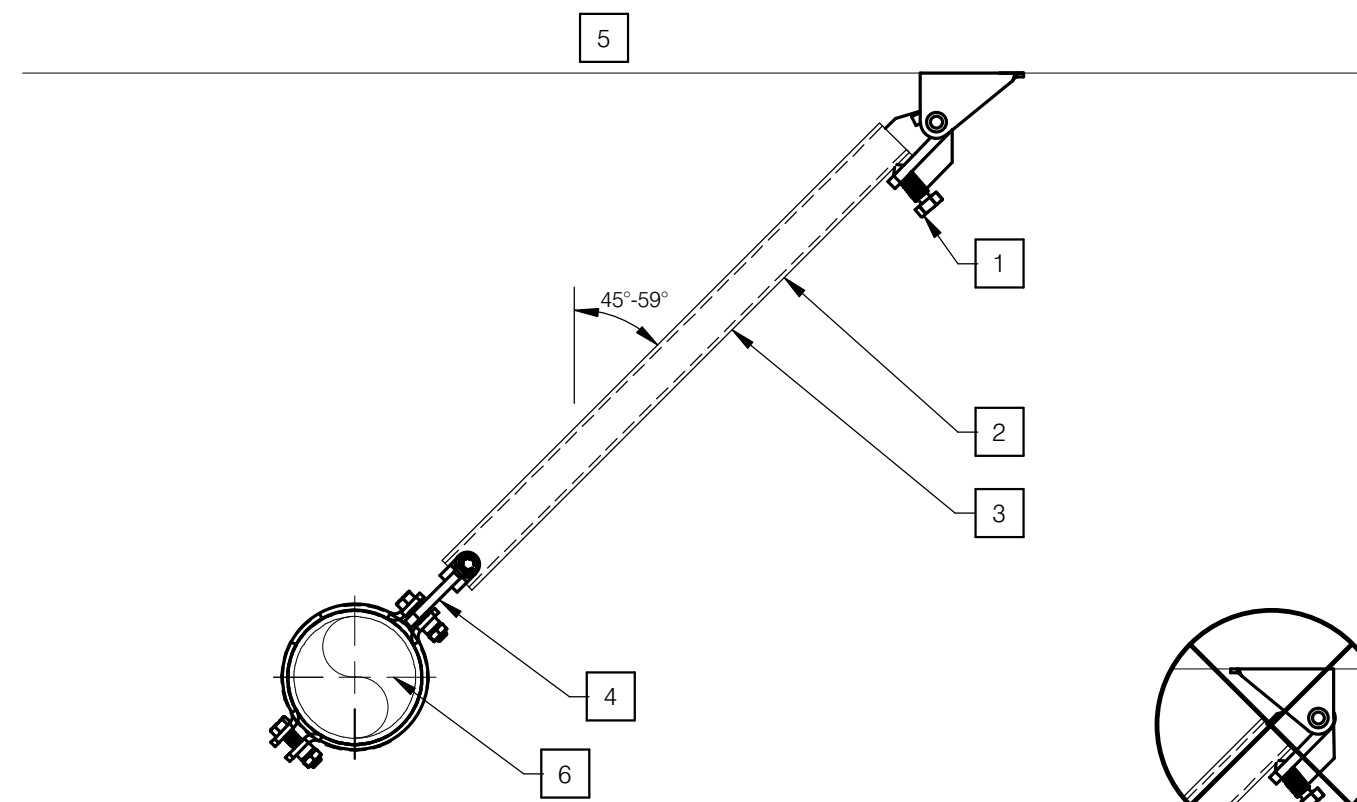
BOLT DIA.	MAX. VERTICAL SEISMIC LOAD W/ BRACE @ 0° FROM VERTICAL (Lbs.)	"E" MIN. EDGE DISTANCE
3/8"	500	1"
1/2"	800	1"
5/8"	1200	1 1/2"
3/4"	1970*	1 1/2"

\*LOAD GOVERNED BY TOLCO 900 SERIES ATTACHMENT

NOTES	
1	STEEL BOLT.
2	TOLCO 900 SERIES ATTACHMENT (TYP).
3	BRACE (TYP).

## 6 BOLT TO STEEL ATTACHMENT

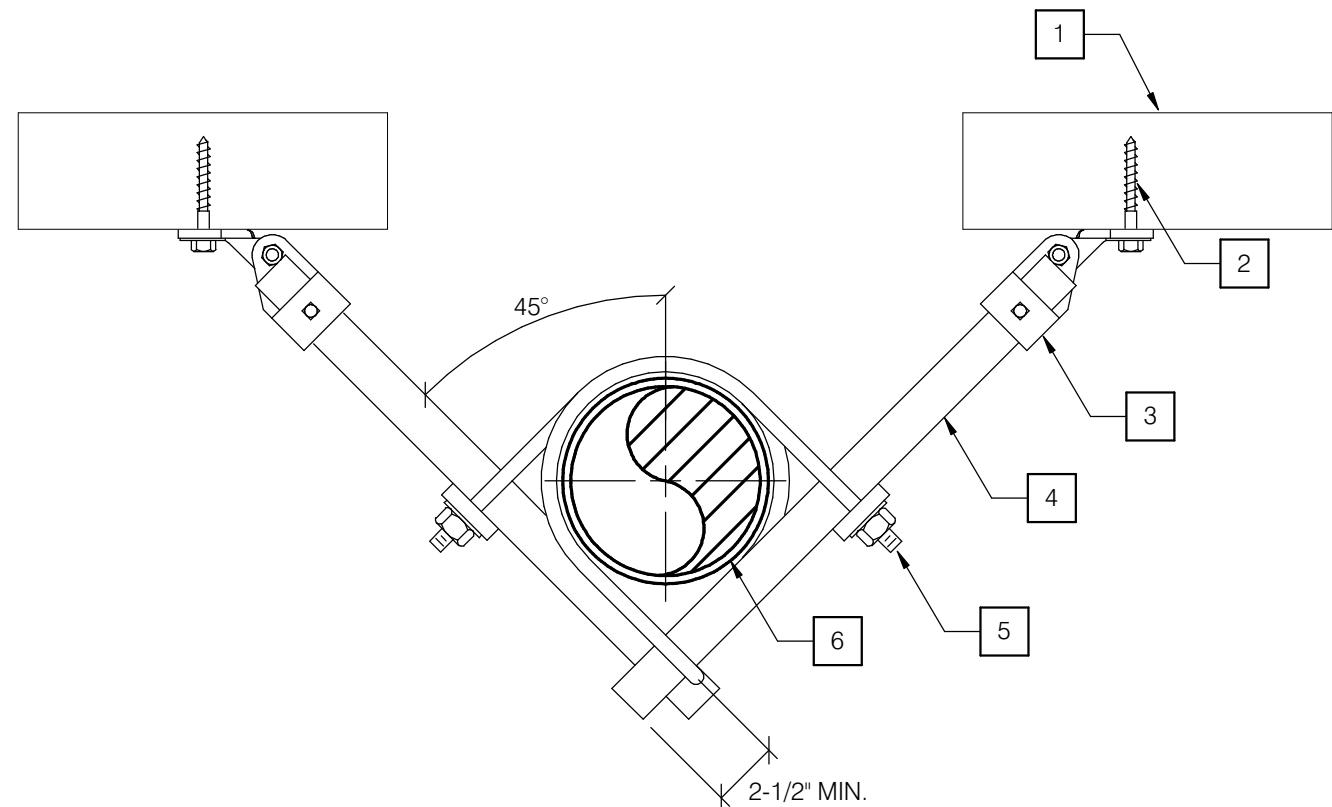
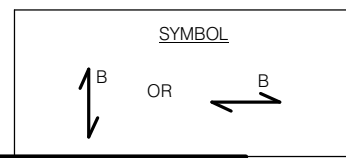
NO SCALE



NOTES			
1	TOLCO FIG. 980 SWAY BRACE ATTACHMENT. TIGHTEN UNTIL BREAK-OFF BOLT HEAD COMES OFF.	5	SEE DETAIL 6/FP6.003 FOR STRUCTURAL ATTACHMENTS
2	1" SCH. 40 STEEL PIPE.	6	1"-12" PIPE SIZE MAX.
3	HORIZONTAL SEISMIC BRACE (HSB)		
4	TOLCO FIG. 4A LONGITUDINAL "IN-LINE" SWAY BRACE ATTACHMENT.		

## 5 LATERAL BRACE WITH 4A FAST CLAMP

NO SCALE

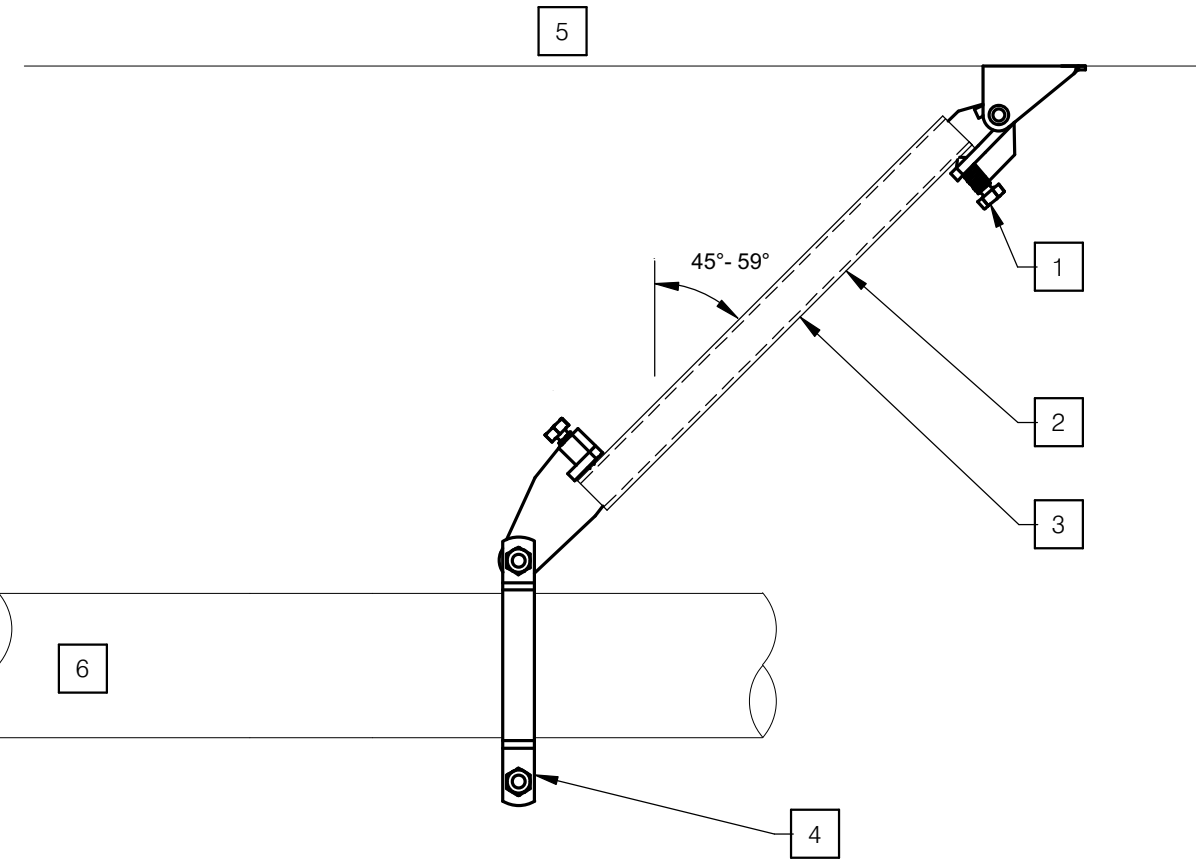
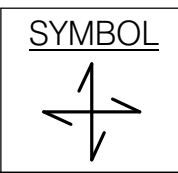


GENERAL NOTES:  
A. UTILIZE TWO LATERAL SEISMIC BRACES FOR 4-WAY RISER BRACE

NOTES	
1	16 GAUGE BACKING PER 15/S1.5 (TYP. MIN. 3 SPANS).
2	#12 SCREW TO METAL BACKING (TYP).
3	(2) SWAY BRACE ATTACHMENT FITTING, TOLCO FIG. 909
4	BRACE PIPE - 1" SCH. 40 (TYP).
5	(2) SWAY BRACE CLAMP FITTINGS, TOLCO FIG. 1000.
6	AUTOMATIC FIRE SPRINKLER RISER.

## 4 4-WAY SWAY BRACING - STUD WALL

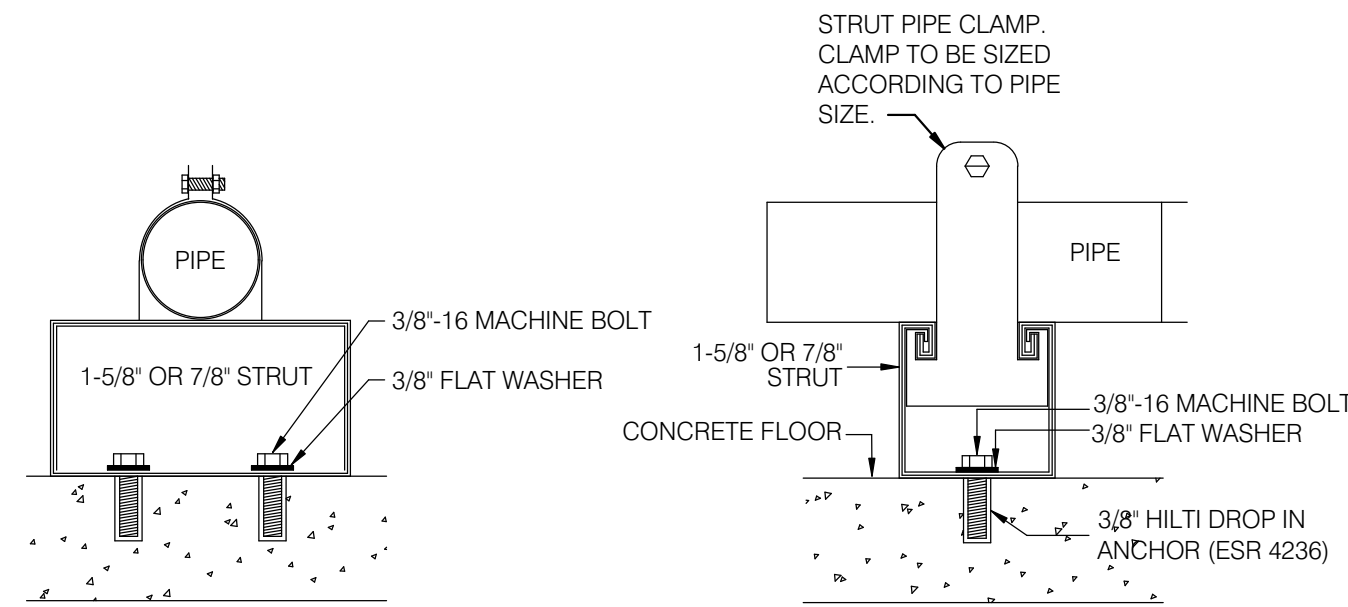
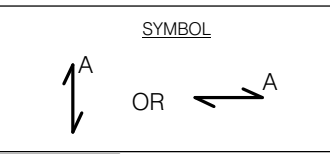
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NOTES	
1	TOLCO FIG. 980 SWAY BRACE ATTACHMENT. TIGHTEN UNTIL BREAK-OFF BOLT HEAD COMES OFF.
2	1" SCH. 40 STEEL PIPE.
3	HORIZONTAL SEISMIC BRACE (HSB)
4	TOLCO FIG. 4A LONGITUDINAL "IN-LINE" SWAY BRACE ATTACHMENT. SINGLE BRACE MUST BE INSTALLED WITHIN 6" OF VERTICAL SEISMIC BRACE.
5	SEE DETAIL 6/FP6.003 FOR STRUCTURAL ATTACHMENTS
6	1"-12" PIPE SIZE MAX.

## 3 LONGITUDINAL BARCE WITH "IN-LINE" PIPE CLAMP

NO SCALE

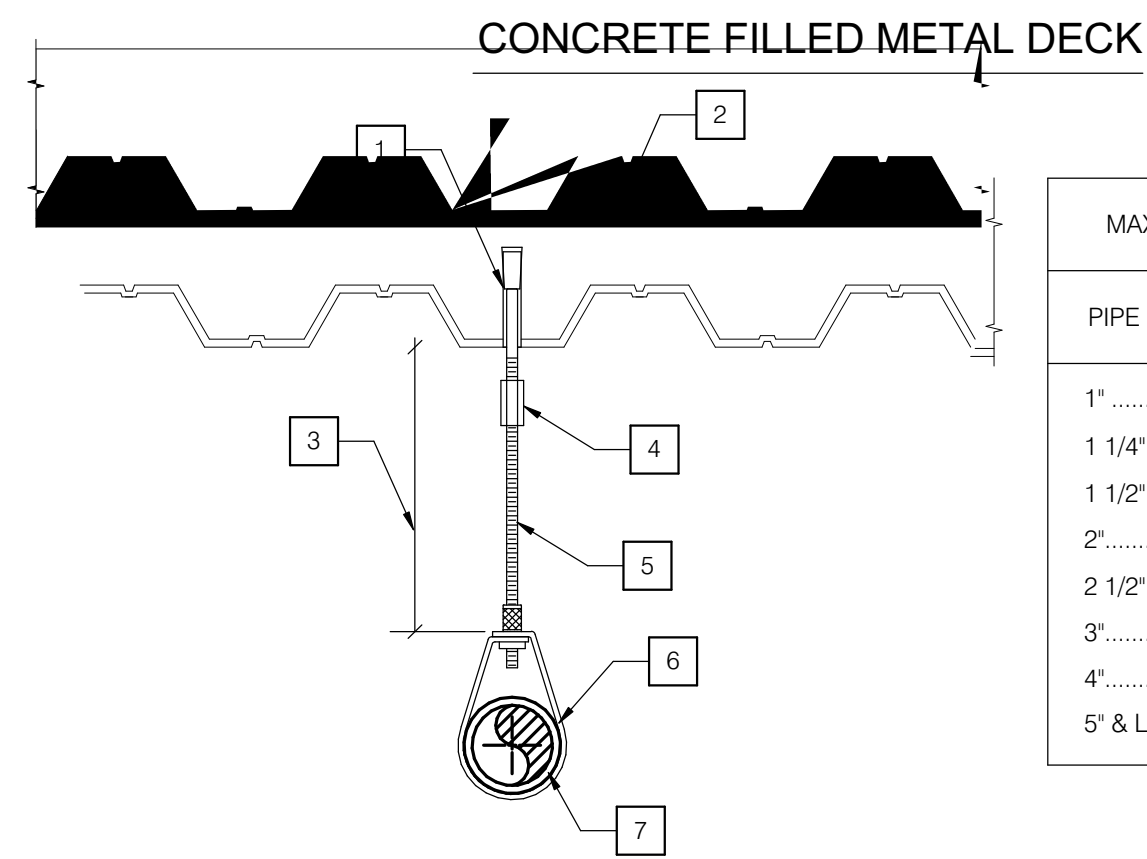


MOUNTING INSTRUCTIONS  
AS SHOWN

USED FOR:  
SUBFLOOR PIPE MOUNT OR CONCRETE  
WALL MOUNT WITH STRUT.

## 2 SUBFLOOR PIPE MOUNTING DETAIL (NTS)

NO SCALE



PIPE SIZE	HANGER SPACING	ROD (ATS) DIA.
1"	10'-0"	3/8"
1 1/4"	12'-0"	3/8"
1 1/2"	15'-0"	3/8"
2"	15'-0"	3/8"
2 1/2"	15'-0"	3/8"
3"	15'-0"	3/8"
4"	15'-0"	3/8"
5" & LARGER	15'-0"	1/2"

NOTES	
1	HILTI "KWIK" BOLT T2" CONCRETE EXPANSION ANCHOR WITH 3" EMBEDMENT (ICC ESR-1917) ANCHOR SIZE PER HANGER SPACING TABLE.
2	CONCRETE FLOOR OR DECK.
3	19" MAX. - FOR A LONGER ROD, USE STIFFENER TOLCO FIG. 96.
4	ROD COUPLING AS REQUIRED.
5	ALL THREADED ROD TOLCO FIG. 100 SIZE PER HANGER SPACING TABLE.
6	PIPE RING HANGER TOLCO FIG. 200.
7	SPRINKLER PIPE PER PLAN.

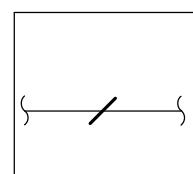
## STEEL - BEAM CLAMP, ROD, COUPLING, AND RING

PIPE SIZE	HANGER SPACING	ROD (ATS) DIA.
1"	10'-0"	3/8"
1 1/4"	12'-0"	3/8"
1 1/2"	15'-0"	3/8"
2"	15'-0"	3/8"
2 1/2"	15'-0"	3/8"
3"	15'-0"	3/8"
4"	15'-0"	3/8"
5" & LARGER	15'-0"	1/2"

NOTES	
1	BAR JOIST OR STEEL MEMBER BY STRUCTURAL (TYP).
2	REVERSIBLE BEAM CLAMP, TOLCO FIG. 65 (TYP).
3	RESTRAINING STRAP, TOLCO FIG. 60/69R (TYP).
4	ALL THREADED ROD, TOLCO FIG. 100 (TYP).
5	PIPE RING HANGER, TOLCO FIG. 200 (TYP).
6	SPRINKLER PIPE PER PLAN (TYP).

## 1 PIPE HANGERS - NON COMBUSTIBLE

NO SCALE



P2S ENG

Long Beach // Irvine // Los Angeles  
San Diego // San Jose // Seattle

p2sinc.com

Consultant

Project Title

OCFA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions  
Number Description Date

Designed A Jimenez  
Drawn A Jimenez  
Checked T Ijaz  
Approved T Ijaz

Date November 1, 2021

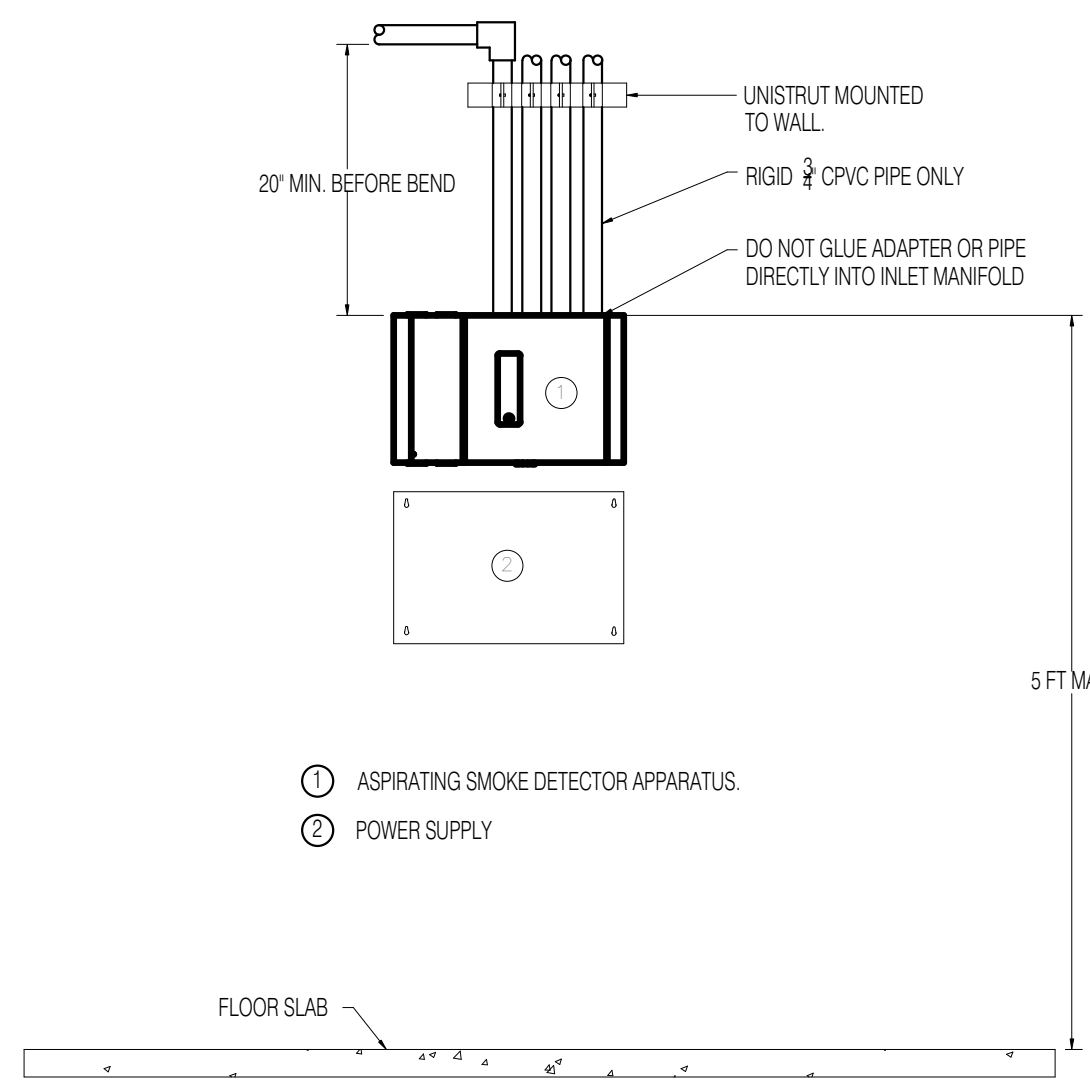
Submittal Plan Check

Scale No Scale

Sheet Title  
Details

Sheet Number

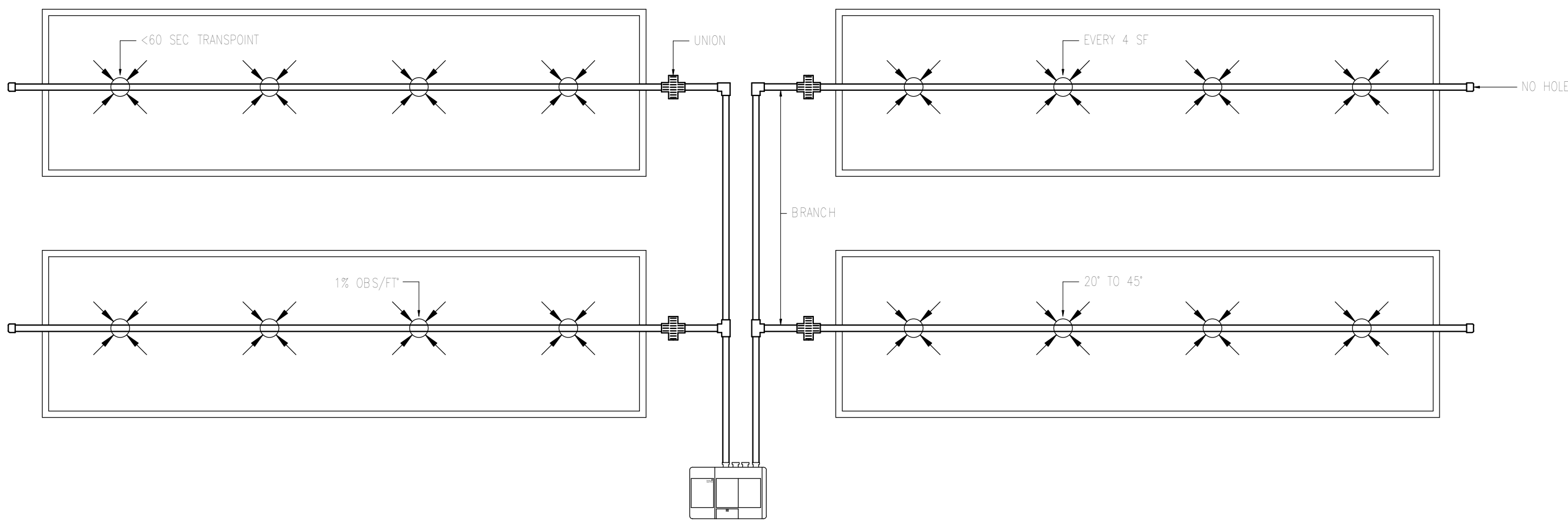
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- NOTES:
1. ASSD APPARATUS SHALL BE MOUNTED TO A WALL IN THE PROTECTED ROOM AT A MAXIMUM HEIGHT OF 5 FT TO TOP OF APPARATUS MEASURED ABOVE FINISHED FLOOR.
  2. MOUNTING LOCATION SHALL BE A FULLY ACCESSIBLE AND IN A VISIBLE LOCATION.
  3. MOUNTING OR ATTACHMENT TO SITE EQUIPMENT, CABLE TRAYS, MOVABLE WALLS, OTHER EQUIPMENT OR EQUIPMENT SUPPORTS IS NOT PERMITTED.
  4. PIPING NETWORK INSERTION INTO THE DETECTOR INLET SHALL NOT BE GLUED.
  5. FLEXIBLE TUBING FOR TERMINATION OF THE SAMPLING PIPE NETWORK INTO DETECTOR INLET IS NOT PERMITTED.
  6. AIR SAMPLING SMOKE DETECTOR ASSEMBLY SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS, THE MANUFACTURER'S INSTALLATION AND INSTRUCTION MANUALS.
  7. INSTALLATION TECHNIQUES SHALL BE IN COMPLIANCE WITH THE GEOGRAPHICAL SEISMIC ZONE REQUIREMENTS IN SEISMIC ZONES PER THE AHJ.

### 5 SUBFLOOR PIPE MOUNTING DETAIL (NTS)

NO SCALE

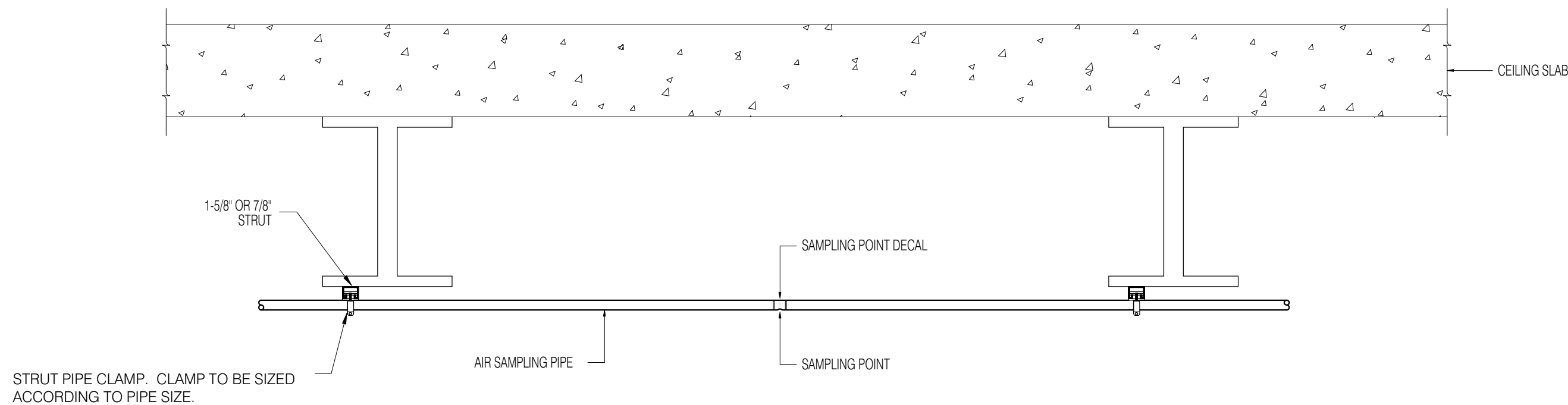


STRUT PIPE CLAMP - CLAMP TO BE SIZED ACCORDING TO PIPE SIZE.

- NOTES:
1. AIR SAMPLING PIPE DISTRIBUTION NETWORKS SHALL BE CONSTRUCTED USING RIGID PIPE MOUNTED TO BOTTOM OF STRUCTURAL BEAMS WITH STANCHIONS EXTENDING UP INTO EACH BEAM POCKET AT LOCATIONS WHERE SAMPLING POINTS ARE REQUIRED.
  2. MECHANICAL PIPE FASTENERS AND HANGERS SHALL BE APPROVED FOR USE WITH PIPE MATERIAL IN WHICH IT IS SUPPORTING.
  3. SAMPLING POINTS SHALL BE DRILLED DIRECTLY INTO THE PIPE STANCHIONS, BE ORIENTED DOWNWARD AND BE WITHIN FOUR INCHES BELOW THE UNDERSIDE OF THE STRUCTURAL CEILING.
  4. ALL SAMPLING POINTS SHALL BE IDENTIFIABLE USING MANUFACTURER PROVIDED LABELING.
  5. SAMPLING POINTS SHALL BE PLACED CENTER OF EACH BEAM POCKET. MAXIMUM COVERAGE PER SAMPLING POINT SHALL NOT EXCEED SPECIFIED LIMITS. WHERE MULTIPLE SAMPLING POINTS ARE REQUIRED TO COVER A SINGLE BEAM POCKET SAMPLING POINTS SHALL BE EQUALLY SPACED WITHIN THE POCKET.
  6. SAMPLING POINTS SHALL BE INSTALLED IN AN AREA ON THE CEILING THAT IS FREE FROM OBSTRUCTIONS FOR A MINIMUM OF 18 INCHES ON ALL SIDES.
  7. SAMPLING POINTS SIZED IN ACCORDANCE WITH ASPIRE CALCULATIONS. MAXIMUM TRANSPORT TIME FROM THE LAST SAMPLE POINT ON EACH PIPE RUN SHALL NOT EXCEED SPECIFIED LIMITS.

### 2 UNDERBEAM AIR SAMPLING - BEAM POCKETS

NO SCALE



STRUT PIPE CLAMP - CLAMP TO BE SIZED ACCORDING TO PIPE SIZE.

- NOTES:
1. AIR SAMPLING PIPE DISTRIBUTION NETWORKS SHALL BE CONSTRUCTED USING RIGID PIPE MOUNTED TO BOTTOM OF STRUCTURAL BEAMS.
  2. MECHANICAL PIPE FASTENERS AND HANGERS SHALL BE APPROVED FOR USE WITH PIPE MATERIAL IN WHICH IT IS SUPPORTING.
  3. SAMPLING POINTS SHALL BE DRILLED DIRECTLY INTO THE SAMPLING PIPE AND BE ORIENTED DOWNWARD.
  4. ALL SAMPLING POINTS SHALL BE IDENTIFIABLE USING MANUFACTURER PROVIDED LABELING.
  5. MAXIMUM COVERAGE PER SAMPLING POINT SHALL NOT EXCEED SPECIFIED LIMITS.
  6. SAMPLING POINTS SHALL BE INSTALLED IN AN AREA ON THE CEILING THAT IS FREE FROM OBSTRUCTIONS FOR A MINIMUM OF 18 INCHES ON ALL SIDES.
  7. SAMPLING POINTS SIZED IN ACCORDANCE WITH ASPIRE CALCULATIONS. MAXIMUM TRANSPORT TIME FROM THE LAST SAMPLE POINT ON EACH PIPE RUN SHALL NOT EXCEED SPECIFIED LIMITS.

- NOTES:
1. AIR SAMPLING PIPE DISTRIBUTION NETWORKS SHALL BE CONSTRUCTED USING RIGID PIPE MOUNTED TO FACE OF RETURN AIR GRILLES PRIOR TO FILTRATION.
  2. SAMPLING POINTS COVERING RETURN AIR GRILLES SHALL STANDOFF 4 TO 6 INCHES FROM THE GRILLE IN ORDER TO AVOID THE LOW OR NEGATIVE PRESSURE POINT DIRECTLY AT THE GRILLE SURFACE.
  3. MECHANICAL PIPE FASTENERS AND HANGERS SHALL BE APPROVED FOR USE WITH THE PIPE MATERIAL IN WHICH IT IS SUPPORTING.
  4. SAMPLING POINTS SHALL BE DRILLED DIRECTLY INTO THE AIR SAMPLING PIPE DISTRIBUTION NETWORK AND BE ORIENTED 20-45° TOWARDS THE INCOMING AIRFLOW.
  5. ALL SAMPLING POINTS SHALL BE IDENTIFIABLE USING MANUFACTURER PROVIDED LABELING.
  6. SAMPLING POINT SPACING SHALL BE BASED UPON SAMPLING POINT DISTRIBUTION OF MINIMUM ONE (1) SAMPLING POINT PER 4 SQ. FT. OF GRILLE AREA.
  7. SAMPLING POINTS SHALL NOT BE PLACED OUTSIDE OF GRILLE AREA.
  8. A MEANS TO DISCONNECT THE SAMPLING PIPE FROM RETURN AIR GRILLES SHALL BE PROVIDED AND BASED ON MANUFACTURER'S GUIDELINES.
  9. SAMPLING POINTS SIZED IN ACCORDANCE WITH ASPIRE CALCULATIONS.
  10. MAXIMUM TRANSPORT TIME FROM THE LAST SAMPLE POINT ON EACH PIPE RUN SHALL NOT EXCEED 60 SECONDS.

### 4 RETURN GRILLE AIR SAMPLING

NO SCALE

### 1 UNDERBEAM AIR SAMPLING - SMOOTH CEILING

NO SCALE

P2S ENG

Long Beach // Irvine // Los Angeles  
San Diego // San Jose // Seattle

p2sinc.com

Consultant

Project Title

OCFA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions  
Number Description Date

Designed A Jimenez  
Drawn A Jimenez  
Checked T Ijaz  
Approved T Ijaz

Date November 1, 2021

Submittal Plan Check

Scale No Scale

Sheet Title Details

Sheet Number

FS610

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<b>TOLBrace™ Seismic Bracing Calculations</b>					
Project Address: <b>OCFA.COM/TEL</b>	Contractor: <b>P2S ENGINEERING</b> Address: <b>5000 E SPRING ST.</b> <b>LONG BEACH, CA 90815</b>				
1 FIRE AUTHORITY	Phone: <b>IRVINE, CA</b>				
IRVINE, CA	License: <b>Job #</b>				
Calculator based on 2016 NFPA Pamphlet #11					
<b>Brace Information</b>	<b>TOLCO™ Brace Components</b>				
Maximum Brace Length: 7'-0" (2.134 m)	TOLCO™ Component Listed Load Adjusted Load				
Diameter of Brace: 1" Sch. 40	Fig. 9A Clamp: 1000 lbs (454 kg) 707 lbs (321 kg)				
Type of Brace: Sch. 40	Fig. 9B Universal Swivel: 2015 lbs (914 kg) 1425 lbs (646 kg)				
Angle of Brace: 45° Min.	See Fastener Information				
Least Rad. of Gyration: 0.42" (11 mm)	*Calculation Based on CONCENTRIC Loading				
L/R Value: 200	*Please Note: These calculations are for TOLCO™ components only. Use of any other components yields these calculations and the listing of the assembly.				
Max Horizontal Load: 1310 lbs (594 kg)					
<b>Fastener Information</b>	<b>Seismic Brace Assembly Detail</b>				
Orientation to Connecting Surface: NFPA Type E					
Fastener: Bolt					
Type: 1/4in. (6 mm)					
Diameter: N/A					
Length: 900 lbs (227 kg)					
Maximum Load: N/A					
Prying Factor: N/A					
<b>Sprinkler System Load Calculation (Fpw = CpWp)</b>					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2'-0" (60 mm)	Sch. 40	40.8 (12.5 m)	40.8 (12.5 m)	7.66 lbs/ft (7.74 kg/m)	316 lbs (143 kg)
Subtotal Weight: 216 lbs (143 kg)					
Wp (incl. 15%) 303 lbs (138 kg)					
Total (Fpw) 519 lbs (235 kg)					
Main Size: 2" Type/Sch. 40 Spacing (ft) 40					
Maximum Fpw per 9.3.5.5.2 (if applicable) 450 lbs (204 kg)					

<b>TOLBrace™ Seismic Bracing Calculations</b>					
Project Address: <b>OCFA.COM/TEL</b>	Contractor: <b>P2S ENGINEERING</b> Address: <b>5000 E SPRING ST.</b> <b>LONG BEACH, CA 90815</b>				
1 FIRE AUTHORITY	Phone: <b>IRVINE, CA</b>				
IRVINE, CA	License: <b>Job #</b>				
Calculator based on 2016 NFPA Pamphlet #11					
<b>Brace Information</b>	<b>TOLCO™ Brace Components</b>				
Maximum Brace Length: 7'-0" (2.134 m)	TOLCO™ Component Listed Load Adjusted Load				
Diameter of Brace: 1" Sch. 40	Fig. 9A Clamp: 1000 lbs (454 kg) 707 lbs (321 kg)				
Type of Brace: Sch. 40	Fig. 9B Universal Swivel: 2015 lbs (914 kg) 1425 lbs (646 kg)				
Angle of Brace: 45° Min.	See Fastener Information				
Least Rad. of Gyration: 0.42" (11 mm)	*Calculation Based on CONCENTRIC Loading				
L/R Value: 200	*Please Note: These calculations are for TOLCO™ components only. Use of any other components yields these calculations and the listing of the assembly.				
Max Horizontal Load: 1310 lbs (594 kg)					
<b>Fastener Information</b>	<b>Seismic Brace Assembly Detail</b>				
Orientation to Connecting Surface: NFPA Type E					
Fastener: Bolt					
Type: 1/4in. (6 mm)					
Diameter: N/A					
Length: 900 lbs (227 kg)					
Maximum Load: N/A					
Prying Factor: N/A					
<b>Sprinkler System Load Calculation (Fpw = CpWp)</b>					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2'-0" (60 mm)	Sch. 40	40.8 (12.5 m)	40.8 (12.5 m)	7.66 lbs/ft (7.74 kg/m)	316 lbs (143 kg)
Subtotal Weight: 216 lbs (143 kg)					
Wp (incl. 15%) 303 lbs (138 kg)					
Total (Fpw) 519 lbs (235 kg)					
Main Size: 2" Type/Sch. 40 Spacing (ft) 40					
Maximum Fpw per 9.3.5.5.2 (if applicable) 450 lbs (204 kg)					

<b>TOLBrace™ Seismic Bracing Calculations</b>					
Project Address: <b>OCFA.COM/TEL</b>	Contractor: <b>P2S ENGINEERING</b> Address: <b>5000 E SPRING ST.</b> <b>LONG BEACH, CA 90815</b>				
1 FIRE AUTHORITY	Phone: <b>IRVINE, CA</b>				
IRVINE, CA	License: <b>Job #</b>				
Calculator based on 2016 NFPA Pamphlet #11					
<b>Brace Information</b>	<b>TOLCO™ Brace Components</b>				
Maximum Brace Length: 7'-0" (2.134 m)	TOLCO™ Component Listed Load Adjusted Load				
Diameter of Brace: 1" Sch. 40	Fig. 1001 Clamp: 2015 lbs (914 kg) 1425 lbs (646 kg)				
Type of Brace: Sch. 40	Fig. 9B Universal Swivel: 2015 lbs (914 kg) 1425 lbs (646 kg)				
Angle of Brace: 45° Min.	See Fastener Information				
Least Rad. of Gyration: 0.42" (11 mm)	*Calculation Based on CONCENTRIC Loading				
L/R Value: 200	*Please Note: These calculations are for TOLCO™ components only. Use of any other components yields these calculations and the listing of the assembly.				
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Subtotal Weight: 216 lbs (143 kg)					
Wp (incl. 15%) 303 lbs (138 kg)					
Total (Fpw) 519 lbs (235 kg)					
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Maximum Fpw per 9.3.5.5.2 (if applicable) 450 lbs (204 kg)					

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Type of Brace: Sch. 40	Fig. 9B Universal Swivel: 2015 lbs (914 kg) 1425 lbs (646 kg)				
Angle of Brace: 45° Min.	See Fastener Information				
Least Rad. of Gyration: 0.42" (11 mm)	*Calculation Based on CONCENTRIC Loading				
L/R Value: 200	*Please Note: These calculations are for TOLCO™ components only. Use of any other components yields these calculations and the listing of the assembly.				
Max Horizontal Load: 1310 lbs (594 kg)					
<b>Fastener Information</b>	<b>Seismic Brace Assembly Detail</b>				
Orientation to Connecting Surface: NFPA Type B					
Fastener: Wedge Anchor					
Type: 1/2in.					
Diameter: 2-3/8in.					
Length: 149 lbs (68 kg)					
Maximum Load: N/A					
Prying Factor: 1.156					
<b>Sprinkler System Load Calculation (Fpw = CpWp)</b>					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2'-0" (60 mm)	Sch. 40	40.8 (12.5 m)	40.8 (12.5 m)	7.66 lbs/ft (7.74 kg/m)	316 lbs (143 kg)
Subtotal Weight: 216 lbs (143 kg)					
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<b>Brace Information</b>	<b>TOLCO™ Brace Components</b>				
Maximum Brace Length: 7'-0" (2.134 m)	TOLCO™ Component Listed Load Adjusted Load				
Diameter of Brace: 1" Sch. 40	Fig. 9A Clamp: 1000 lbs (454 kg) 707 lbs (321 kg)				
Type of Brace: Sch. 40	Fig. 9B Universal Swivel: 2015 lbs (914 kg) 1425 lbs (646 kg)				
Angle of Brace: 45° Min.	See Fastener Information				
Least Rad. of Gyration: 0.42" (11 mm)	*Calculation Based on CONCENTRIC Loading				
L/R Value: 200	*Please Note: These calculations are for TOLCO™ components only. Use of any other components yields these calculations and the listing of the assembly.				
Max Horizontal Load: 1310 lbs (594 kg)					
<b>Fastener Information</b>	<b>Seismic Brace Assembly Detail</b>				
Orientation to Connecting Surface: NFPA Type B					
Fastener: Wedge Anchor					
Type: 5/8in.					
Diameter: 3-1/4in.					
Length: 237 lbs (108 kg)					
Maximum Load: N/A					
Prying Factor: 1.156					
<b>Sprinkler System Load Calculation (Fpw = CpWp)</b>					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2'-0" (60 mm)	Sch. 40	40.8 (12.5 m)	40.8 (12.5 m)	7.66 lbs/ft (7.74 kg/m)	316 lbs (143 kg)
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Angle of Brace: 45° Min.	See Fastener Information				
Least Rad. of Gyration: 0.42" (11 mm)	*Calculation Based on CONCENTRIC Loading				
L/R Value: 200	*Please Note: These calculations are for TOLCO™ components only. Use of any other components yields these calculations and the listing of the assembly.				
Max Horizontal Load: 1310 lbs (594 kg)					
<b>Fastener Information</b>	<b>Seismic Brace Assembly Detail</b>				
Orientation to Connecting Surface: NFPA Type E					
Fastener: Wedge Anchor					
Type: 3/4in.					
Diameter: 4-1/8in.					
Length: 351 lbs (159 kg)					
Maximum Load: N/A					
Prying Factor: 1.850					
<b>Sprinkler System Load Calculation (Fpw = CpWp)</b>					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2'-0" (60 mm)	Sch. 40	40.8 (12.5 m)	40.8 (12.5 m)	7.66 lbs/ft (7.74 kg/m)	316 lbs (143 kg)
Subtotal Weight: 216 lbs (143 kg)					
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<b>Fastener Information</b>	<b>Seismic Brace Assembly Detail</b>				
Orientation to Connecting Surface: NFPA Type B					
Fastener: Wedge Anchor					
Type: 5/8in.					
Diameter: 3-1/4in.					
Length: 237 lbs (108 kg)					
Maximum Load: N/A					
Prying Factor: 1.156					
<b>Sprinkler System Load Calculation (Fpw = CpWp)</b>					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2'-0" (60 mm)	Sch. 40	40.8 (12.5 m)	40.8 (12.5 m)	7.66 lbs/ft (7.74 kg/m)	316 lbs (143 kg)
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P2S ENG

Long Beach // Irvine // Los Angeles  
San Diego // San Jose // Seattle

p2sinc.com

Consultant

Project Title

OCFA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions

Number Description Date

Designed A Jimenez  
Drawn A Jimenez  
Checked T Jaz  
Approved T Jaz

Date November 1, 2021

Submittal Plan Check

Scale No Scale

Sheet Title

Seismic Bracing  
Calculations

Sheet Number

FS611

**5F: ELECTRICAL DRAWINGS PROVIDED BY P2S, INC.**

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A

B

C

D

E

## LEGEND

SYMBOL	DESCRIPTION
	NOTE CALLOUT
	DETAIL CALLOUT - NUMBER ON TOP DENOTES DETAIL NUMBER - NUMBER ON BOTTOM DENOTES SHEET DETAIL IS SHOWN
	MECHANICAL EQUIPMENT CALLOUT. SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS
	SECTION CALLOUT
	FEEDER CALLOUT
	EXISTING FEEDER CALLOUT
	NEW LINework
	EXISTING LINework
	DEMOLISHED LINework
	CONDUIT CONCEALED IN WALL OR ABOVE CEILING
	CONDUIT EXPOSED
	CONDUIT CONCEALED UNDERGROUND OR BELOW FLOOR
	CONDUIT EMERGENCY
	CONDUIT TURNED UP
	CONDUIT CAPPED
	BRANCH CIRCUIT HOMERUN TO PANELBOARD AND CIRCUITS AS INDICATED
	CIRCUIT (3/4" CONDUIT MINIMUM); TICK MARKS INDICATE QUANTITY OF WIRES. NOT ALL TICK MARKS MAY BE SHOWN (2#12 & 1#12 GND MINIMUM - WITH OR WITHOUT TICKMARKS. LION) - SMALL MARK DENOTES HOT WIRE - LARGE MARK DENOTES NEUTRAL WIRE - DIAGONAL DENOTES GROUND WIRE
	GROUND CONNECTION
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	COMBINATION STARTER/DISCONNECT SWITCH
	SWITCH MOTOR RATED
	EXIT LIGHT FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED. SHADED SIDE DENOTES NUMBER OF FACES
	JUNCTION BOX
	LIGHTING CONTROL PANEL - SURFACE MOUNTED
	PANELBOARD - RECESSED MOUNTED
	PANELBOARD - SURFACE MOUNTED
	DISTRIBUTION PANEL/ BOARD
	SINGLE POLE SWITCH; DEVICE SHALL BE MOUNTED + 48" MAX AND + 36" MIN FROM THE CENTER OF DEVICE.
	SWITCH 3-WAY (48" AFF MAXIMUM)
	TIMER SWITCH (48" AFF MAXIMUM)
	DUAL SWITCH (48" AFF MAXIMUM)
	PUSHBUTTON SWITCH
	RECESSED ON WALL SURFACE FLOOR OR CEILING
	20A, 125V DUPLEX RECEPTACLE MOUNTED = 15" AFF, UNLESS OTHERWISE NOTED
	20A, 125V QUAD RECEPTACLE MOUNTED = 15" AFF, UNLESS OTHERWISE NOTED
	20A, 125V DUPLEX RECEPTACLE RECEPTACLE ON DEDICATED CIRCUIT
	SPECIAL RECEPTACLE REFER TO DRAWINGS FOR NEMA CONFIGURATION
	JUNCTION BOX

## ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
&	AND	LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
1/C	SINGLE CONDUCTOR	LGST	LARGEST
@	AT	LIS	LOAD INTERRUPTER SWITCH
A OR AMP	AMPERES	LOC	LOCATION
A.C.	ASPHALT CONCRETE	LOTO	LOCK-OUT & TAG-OUT
ABV	ABOVE	LSI	LONG TERM, SHORT TERM, INSTANTANEOUS
AF	AMPERE FUSE RATING	LSIG	LONG TERM, SHORT TERM, INSTANTANEOUS GROUNDING
AFC	AVAILABLE FAULT CURRENT	LTG	LIGHTING
AFF	ABOVE FINISHED FLOOR	LV	LOW VOLTAGE
AFG	ABOVE FINISHED GRADE	M	METER
AIC	AMPERE INTERRUPTING CAPACITY	MAX	MAXIMUM
AL	ALUMINUM	MCA	MINIMUM CIRCUIT AMPS
APPROX.	APPROXIMATE	MCC	MOTOR CONTROL CENTER
ARCH.	ARCHITECT, ARCHITECTURAL	MCP	MOTOR CIRCUIT PROTECTOR
AS	AMPERE SWITCH RATING	MFR, MFR	MANUFACTURER
ASCC	AVAILABLE SHORT CIRCUIT CURRENT	MH	MAN-HOLE
ATC	AIR TERMINAL CHAMBER	MI	MECHANICAL INTERLOCK
ATO	AUTOMATIC THROW-OVER (SWITCH)	MIN	MINIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MOC	MAXIMUM OVERCURRENT PROTECTION
AUTO	AUTOMATIC	MOC	MULTI-RATIO CURRENT TRANSFORMER
AUX	AUXILIARY	MTC	MOUNTED
AWG	AMERICAN WIRE GAUGE	MTG	MOUNTING
B.S.	BARE STRANDED	MTR	MOTOR
BAT	BATTERY	MTTB	MAIN TELEPHONE TERMINAL BOARD
BEL	BELOW	MV	MEDIUM VOLTAGE
BKBD	BACKBOARD	N	NORTH
BKR	BREAKER	NAC	NOTIFICATION APPLANCE CIRCUIT
BLDG	BUILDING	NC	NORMALLY CLOSED
C	CONDUIT	NEC	NATIONAL ELECTRICAL CODE
C.O.	CONDUIT ONLY WITH PULL WIRE	NF	NON-FUSED
CB	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CC	CONSTANT CURRENT	NL	NIGHT LIGHT- 24HRS ON
CKT	CIRCUIT	NO	NUMBER
CL	CENTER LINE	OC	ON CENTER
CLG	CEILING	OCPD	OVERCURRENT PROTECTIVE DEVICE
CMU	CONCRETE MASONRY UNIT	OD	OUTSIDE DIAMETER
COL	COLUMN	OE	OVERHEAD ELECTRICAL
CP	COMMUNICATION PROCESSOR	OFC	OIL FUSED CUTOUT
CPT	CONTROL POWER TRANSFORMER	OH	OVER HEAD
CR	CONTROL RELAY	OL	OIL LEVER SWITCH
CSFD	COMBINATION SMOKE FIRE DAMPER	P	POLE
CT	CURRENT TRANSFORMER	PAC	PROGRAMMABLE AUTOMATION CONTROLLER
CU	COPPER	PB	PULL BOX
CW	COLD WATER	PC	PHOTOCELL
DIAG	DIAGRAM	PCB	POLYCHLORINATED BIPHENYL
DIS	DISCONNECT	PDS	PRESSURE DIFFERENTIAL SWITCH
DIST.	DISTANCE	PF	POWER FACTOR
DL	DAMP LOCATION LISTING	PH OR Ø	PHASE
DM	DIGITAL METER	PILC	PAPER INSULATED, LEAD COVER
DMM	DIGITAL METER MODULE	PV	POST INDICATING VALVE
DP	DISTRIBUTION PANEL	PL	PLATE
DWG	DRAWING	PLC	PROGRAMMABLE LOGIC CONTROLLER
DWP	DEPARTMENT OF WATER & POWER	PNL	PANEL
EA	EACH	POC	POINT OF CONNECTION
ECM	ELECTRIC CIRCUIT MONITOR	PREF.	PREFERRED
ELEC.	ELECTRICAL	PRI.	PRIMARY
EM	EMERGENCY	PVC	POLY-VINYL CHLORIDE
EMH	ELECTRICAL MAN-HOLE	PWR	POWER
EMT	ELECTRICAL METALLIC TUBING	REC/RECEPT	RECEPTACLE
EPO	EMERGENCY POWER OFF	REQD	REQUIRED
EPR	ETHYLENE PROPYLENE RUBBER	RGS	RIGID GALVANIZED STEEL
EQUIP	EQUIPMENT	RM	ROOM
ERR	EXISTING TO BE RELOCATED AND RECONNECTED	RMC	RIGID METAL CONDUIT
EXIST(E)	EXISTING	RPPB	REDUCED PRESSURE BACK FLOW PREVENTER
EXP	EXPLOSION PROOF	RTAC	REAL TIME AUTOMATION CONTROLLER
FA	FIRE ALARM	SCCR	SHORT CIRCUIT CURRENT RATING
FACP	FIRE ALARM CONTROL PANEL	SCE	SOUTHERN CALIFORNIA EDISON
FATC	FIRE ALARM TERMINAL CABINET	SF	SQUARE FEET
FFE	FINISHED FLOOR ELEVATION	SHT	SHEET
FIN.	FINISH	SIG.	SIGNAL
FIP.	FIELD INTERFACE PANEL	SP	SPARE
FXIT	FIXTURE	SPECS	SPECIFICATIONS
FLA	FULL LOAD AMPS	ST	STREET
FLR	FLOOR	STD	STANDARD
FLUOR	FLUORESCENT	STP	SHIELDED TWISTED PAIR
FMC	FLEXIBLE METAL CONDUIT	SW	SWITCH
FO	FIBER OPTIC	SWBD	SWITCHBOARD
FT	FEET	SWGR	SWITCHGEAR
FTG	FOOTING	SWST	SWITCHING STATION
GEN	GENERATOR	T.O.D.	TOP OF DUCTBANK
GFI	GROUND FAULT INTERRUPTER	T.O.M.	TOP OF MANHOLE
GFR	GROUND FAULT RELAY	TB	TERMINAL BLOCK
GG	GREEN GROUND	TEL./TELE	TELEPHONE
GND	GROUND	TMH	TELEPHONE MAN-HOLE
HOA	HAND-OFF-AUTOMATIC	TPS	TWISTED SHIELDED PAIR
HP	HORSEPOWER	TRANSF, XFMR	TRANSFORMER
HT	HEIGHT	TS	TAMPER SWITCH
HTR	HEATER	TYP	TYPICAL
HV	HIGH VOLTAGE	UG	UNDERGROUND
HZ	HERTZ	UON	UNLESS OTHERWISE NOTED
ICON	INTEGRATED COMMUNICATIONS OPTICAL NETWORK	V	VOLTS
IE	INVERT ELEVATION	VA	VOLT-AMPERES
IED	INTELLIGENT ELECTRONIC DEVICE	VB	VIBRATION SWITCH
IMC	INTERMEDIATE METAL CONDUIT	VFD	VARIABLE FREQUENCY DRIVE
INCAND	INCANDESCENT	W	WATTS
ISC	SHORT CIRCUIT CURRENT	W	WITH
J, JB, J-BOX	JUNCTION BOX	W/O	WITHOUT
KCMIL	THOUSAND CIRCULAR MILS	WP	WEATHERPROOF
KV	KILOVOLT	Z	IMPEDANCE
KVA	KILOVOLT-AMPERES		
KW	KILOWATT		
LF	LINEAR FEET		

IN THE EVENT ABBREVIATIONS NOT MENTIONED HEREIN ARE USED, REFERENCE WILL BE MADE TO ANSI Y1.1, MILITARY STANDARD ABBREVIATIONS AND OTHER STANDARD INDUSTRY CONVENTIONS.

## GENERAL NOTES

- ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE CALIFORNIA ELECTRICAL CODE AND ALL OTHER APPLICABLE FEDERAL AND STATE. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN BUT THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.
- THE CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT OR STRUCTURAL ENGINEER.
- MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT ANCHORAGE NOTES:
  - ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE APPROVED CONSTRUCTION DOCUMENTS, WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCES AND DISPLACEMENT REQUIREMENTS.
    - ALL PERMANENT EQUIPMENT AND COMPONENTS.
    - TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
    - MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.
  - THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENT SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.
    - COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORTS THE COMPONENT.
    - COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.
  - FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.
- PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES:

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN LATEST SECTIONS OF CBC AND ASCE.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPM #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

## SHEET INDEX

SHEET	DESCRIPTION
E001	GENERAL NOTES, LEGEND, ABBREVIATIONS AND SHEET INDEX
E002	SCHEDULES
E001	ELECTRICAL FLOOR PLAN
E001	DETAILS

**P2S** ENG

Long Beach // Irvine // Los Angeles  
San Diego // San Jose // Seattle

p2sinc.com

Consultant

Project Title

OCCA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions

Number Description Date

Designed L. Henderson  
Drawn C. Naranjo  
Checked L. Henderson  
Approved L. Henderson

Date November 1, 2021

Submittal Plan Check

Scale No Scale

Sheet Title

General Notes, Legend,  
Abbreviations and Sheet  
Index

Sheet Number

E001

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11/10/2024 4:10:08 PM

p2sinc.com

Consultant

Project Title

OCFA-Clean Agent Fire  
Suppression System

Owner



1 Fire Authority Road  
Irvine, CA 92602



Revisions

Number	Description	Date
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Designed	L Henderson
Drawn	C Naranjo
Checked	L Henderson
Approved	L Henderson

Date	November 1, 2021
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Submittal	Plan Check
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Scale	No Scale
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Sheet Title	Schedules
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Sheet Number

E002

PANEL: (E) EH1/B

LOCATION:	MAIN ELECT. B112	VOLTAGE/PHASE:	277/480 WYE,3PH,4W	FED FROM:	CMS B
FLOOR:	Level 1	BUS AMPS:	100 A	RATING:	EXISTING
MOUNTING:	SURFACE	MAIN BREAKER:	100 A		

CKT	TYPE	LOAD	BKR/POLE	A	B	C	A	B	C	BKR/POLE	LOAD	TYPE	CKT
1	--	(E) COMPUTER B115,125,104	20 A 1	600 VA			0 VA			1	20 A	SPARE	-- 2
3	--	(E) EQUIPMENT B128	20 A 1		500 VA			300 VA		1	20 A	(E) ECO B225	-- 4
5	--	(E) CORRIDOR B111	20 A 1			500 VA			550 VA	1	20 A	(E) CORRIDOR B223	-- 6
7	--	(E) EXTERIOR LTG	20 A 1	2500 VA			0 VA			1	20 A	SPARE	-- 8
9	--	(E) EXTERIOR LTG	20 A 1		2500 VA			0 VA		1	20 A	SPARE	-- 10
11	--	(E) EXISTING LOAD	20 A 1			400 VA			0 VA	1	20 A	SPARE	-- 12
13	--	SPARE	20 A 1	0 VA			2300 VA			1	20 A	(E) DIMMING PANEL	-- 14
15	--	SPARE	20 A 1		0 VA			2300 VA		1	20 A	(E) DIMMING PANEL	-- 16
17	--	SPARE	20 A 1			0 VA			2300 VA	1	20 A	(E) DIMMING PANEL	-- 18
19	--	SPARE	20 A 1	0 VA			2300 VA			1	20 A	(E) DIMMING PANEL	-- 20
21	--	SPARE	20 A 1		0 VA			0 VA		1	20 A	SPARE	-- 22
23	--	SPARE	20 A 1			0 VA			0 VA	1	20 A	SPARE	-- 24
25	--	SPARE	20 A 1	0 VA			3000 VA			3	60 A	(E) ET1 TRANSFORMER	P 26
27	--	SPARE	20 A 1		0 VA			2950 VA		--	--		-- 28
29	--	SPARE	20 A 1			0 VA			2960 VA	--	--		-- 30
31	--	SPACE	-- --	0 VA			0 VA			--	--	SPACE	-- 32
33	--	SPACE	-- --		0 VA			0 VA		--	--	SPACE	-- 34
35	--	SPACE	-- --			0 VA			0 VA	--	--	SPACE	-- 36
37	--	SPACE	-- --		0 VA			0 VA		--	--	SPACE	-- 38
39	--	SPACE	-- --			0 VA			0 VA	--	--	SPACE	-- 40
41	--	SPACE	-- --			0 VA			0 VA	--	--	SPACE	-- 42

LOAD TYPE KEY:							
N=NON CONTINUOUS		M=MECH EQUIP		TOTAL A:		10700 VA	
P=POWER		R=RECEPTACLE		TOTAL B:		8550 VA	
L=LIGHTING		K=KITCHEN		TOTAL C:		6710 VA	
						24 A	
LOAD TYPE	CONNECTED	DEMAND FACTOR	ESTIMATED	PANEL TOTALS			
P	600 VA	100.00%	600 VA				
				</			

PANEL: (E) EL1/B

LOCATION:	MAIN ELECT. B112	VOLTAGE/PHASE:	120/208 WYE,3PH,4W	FED FROM:	(E) ET1/B
FLOOR:	Level 1	BUS AMPS:	100 A	RATING:	EXISTING
MOUNTING:	SURFACE	MAIN BREAKER:	100 A		

CKT	TYPE	LOAD	BKR/POLE	A	B	C	A	B	C	BKR/POLE	LOAD	TYPE	CKT
1	--	(E) WON DOOR @ ELEV	20 A 1	300 VA			300 VA			1	20 A	(E) ELEV. PIT	-- 2
3	--	(E) CAB LIGHT & FAN	20 A 1		300 VA			250 VA		1	20 A	(E) BASE ISOLATOR	-- 4
5	--	(E) ELEV ROOM	20 A 1			360 VA			250 VA	1	20 A	(E) BASE ISOLATOR	-- 6
7	--	(E) FIRE ALARM PANEL	20 A 1	600 VA			450 VA			1	20 A	(E) PREACTION CONTROL PNL	-- 8
9	--	(E) FIRE ALARM PANEL	20 A 1		600 VA			450 VA		1	20 A	(E) PREACTION CONTROL PNL	-- 10
11	P	FIRE SUPPRESS BATT RM B121	20 A 1			600 VA			400 VA	1	20 A	(E) FIRE ALARM TC2	-- 12
13	--	SPARE	20 A 1	0 VA			450 VA			1	20 A	(E) 2ND FLOOR PREACTION	-- 14
15	--	SPARE	20 A 1		0 VA			450 VA		1	20 A	(E) 2ND FLOOR PREACTION	-- 16
17	--	SPARE	20 A 1			0 VA			450 VA	1	20 A	(E) 2ND FLOOR PREACTION	-- 18
19	--	SPARE	20 A 1	0 VA			450 VA			1	20 A	(E) 2ND FLOOR PREACTION	-- 20
21	--	SPARE	20 A 1		0 VA			450 VA		1	20 A	(E) 2ND FLOOR PREACTION	-- 22
23	--	SPARE	20 A 1			0 VA			450 VA	1	20 A	(E) 2ND FLOOR PREACTION	-- 24
25	--	SPARE	20 A 1	0 VA			450 VA			1	20 A	(E) 2ND FLOOR PREACTION	-- 26
27	--	SPARE	20 A 1		0 VA			450 VA		1	20 A	(E) 2ND FLOOR PREACTION	-- 28
29	--	SPARE	20 A 1			0 VA			450 VA	1	20 A	(E) 2ND FLOOR PREACTION	-- 30
31	--	SPACE	-- --	0 VA			0 VA			--	--	SPACE	-- 32
33	--	SPACE	-- --		0 VA			0 VA		--	--	SPACE	-- 34
35	--	SPACE	-- --			0 VA			0 VA	--	--	SPACE	-- 36
37	--	SPACE	-- --		0 VA			0 VA		--	--	SPACE	-- 38
39	--	SPACE	-- --			0 VA			0 VA	--	--	SPACE	-- 40
41	--	SPACE	-- --			0 VA			0 VA	--	--	SPACE	-- 42

LOAD TYPE KEY:							
N=NON CONTINUOUS	M=MECH EQUIP	TOTAL A:	3000 VA	25 A			
P=POWER	R=RECEPTACLE	TOTAL B:	2950 VA	25 A			
L=LIGHTING	K=KITCHEN	TOTAL C:	2960 VA	25 A			
LOAD TYPE	CONNECTED	DEMAND FACTOR	ESTIMATED	PANEL TOTALS			
P	600 VA	100.00%	600 VA				
					TOTAL CONNECTED LOAD:	8910 VA	25 A
					TOTAL DEMAND LOAD:	8910 VA	25 A



Number	Description	Date
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Designed	L Henderson
Drawn	C Naranjo
Checked	L Henderson
Approved	L Henderson

November 1, 2021

Submittal	Plan Check
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scale As Noted

Sheet Title

## Electrical Floor Plan

Sheet Number

# 三201

P2S No. 21-037

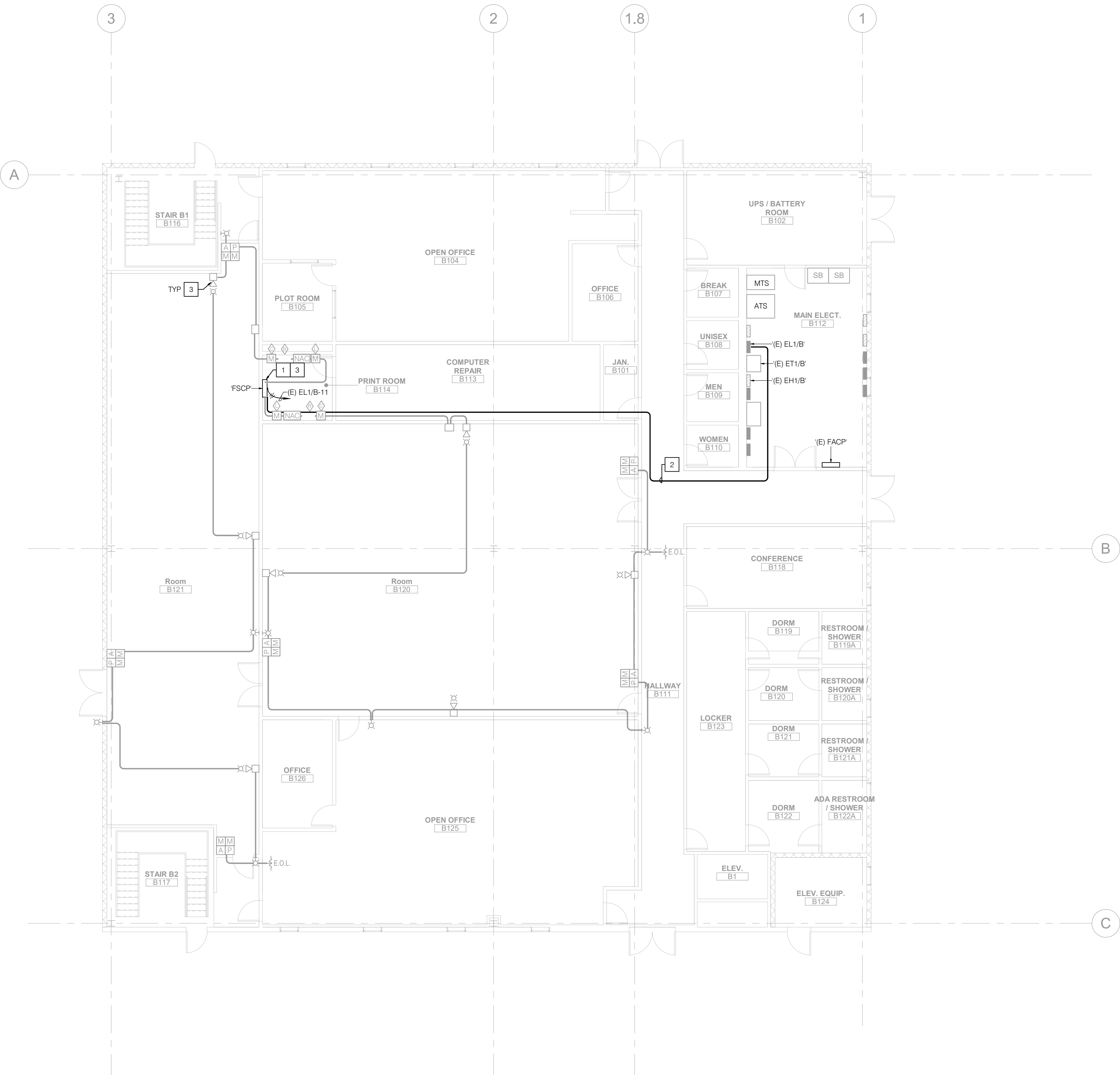
OD Item 2G, Attach. 3, Page 405

## GENERAL NOTES

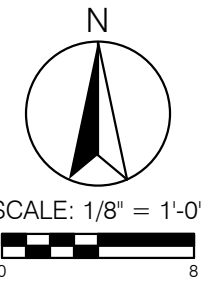
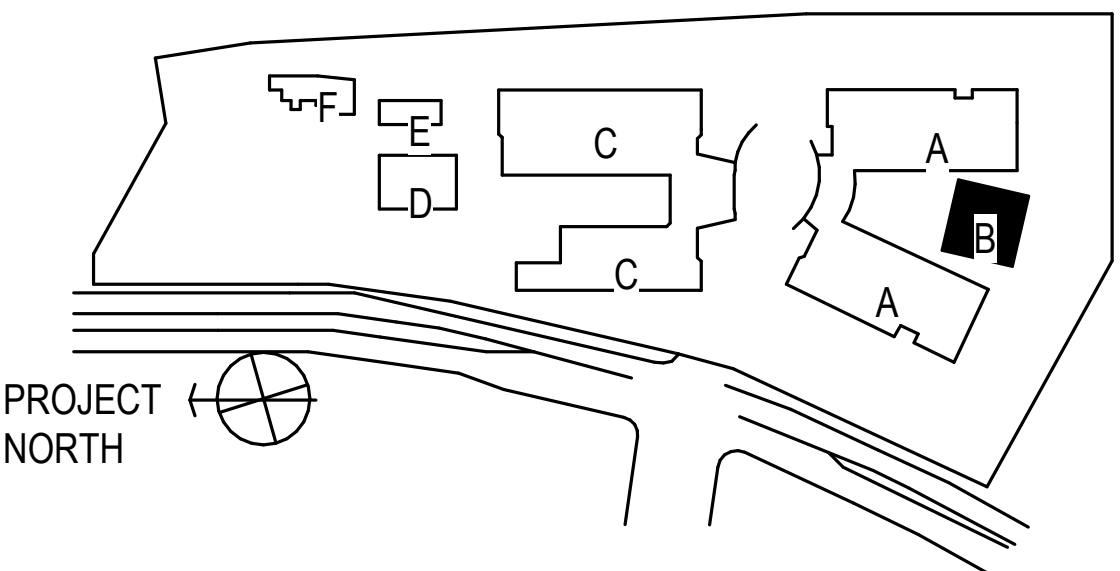
1. ROUTE CIRCUITS PARALLEL TO EXISTING RACEWAYS AND STRUCTURES, AND FLUSH TO WALLS AND CEILINGS.
2. PROVIDE FIRESTOPPING FOR FIRE-RATED PENETRATIONS.
3. INCLUDE PATCHING AND RE-FINISHING OF EXISTING CEILING AND WALL SURFACES WHERE AFFECTED.
4. FIELD VERIFY CIRCUITS. DESIGNATIONS ARE FOR LOAD COORDINATION PURPOSES.
5. WIRING IS DIAGRAMMATIC. VOM, CIRCUITS SHALL BE CONCEALED ABOVE FINISH CEILINGS AND WITHIN WALLS.
6. UPDATE PANEL DIRECTORIES UPON COMPLETION OF WORK.
7. PROTECT AND MAINTAIN CIRCUITS AND DEVICES TO REMAIN DURING CONSTRUCTION.

## NOTES

- 1 PROVIDE 120V CIRCUIT TO FIRE SUPPRESSION SYSTEM:  
3/4" - 2#10, 1#10G. UTILIZE EXISTING SPARE BREAKER  
AT SOURCE PANEL.
- 2 PROPOSED ROUTE FOR POWER CIRCUIT PER KEYNOTE  
#1. PARALLEL NEW FIRE ALARM PANEL CONNECTION  
WHERE POSSIBLE. FIELD COORDINATE PATHWAY ABOVE  
FINISHED CEILINGS. INCLUDE PULLBOXES.
- 3 REFER TO FIRE PROTECTION PLANS FOR RESPECTIVE  
DEVICE INFORMATION.



## KEY PLAN





1 Fire Authority Road  
Irvine, CA 92602



<b>Revisions</b>		
<b>Number</b>	<b>Description</b>	<b>Date</b>

Designed	L Henderson
Drawn	C Naranjo
Checked	L Henderson
Approved	L Henderson

Date November 1, 2021

Submittal Plan Check

Scale

Sheet Title

## Details

Sheet Number

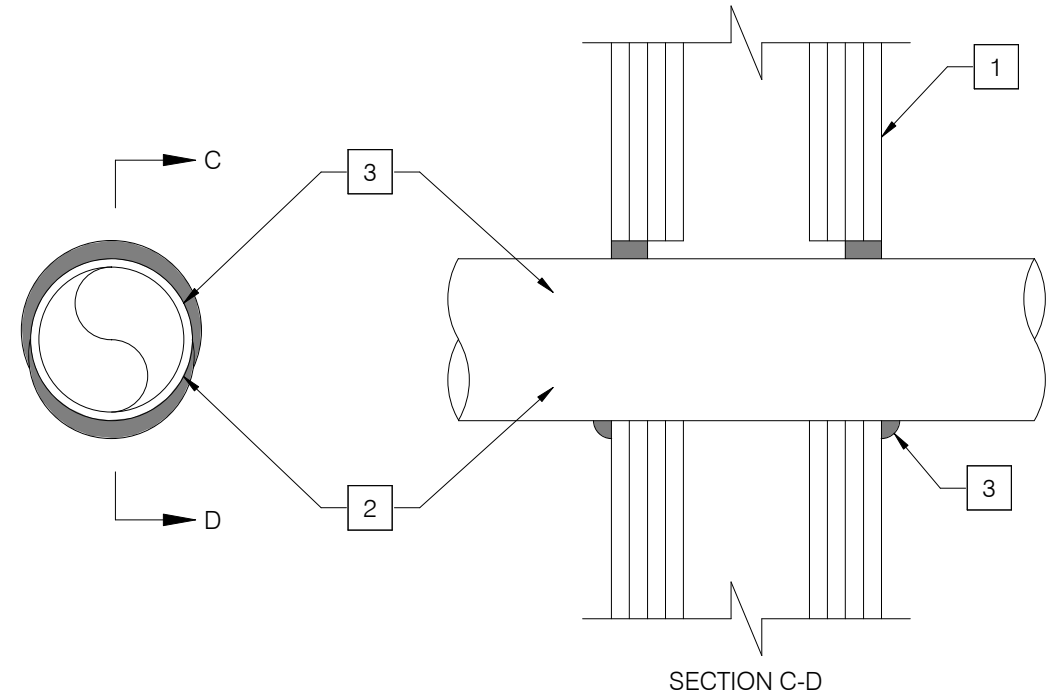
# E601

ANSI/UL1479 (ASTM E814)		CAN/ULC S115	
F Ratings — 1, 2, 3 and 4 Hr (See Items 1 and 3)		F Ratings — 1, 2, 3 and 4 Hr (See Items 1 and 3)	
T Rating — 1, 2, 3 and 4 Hr (See Items 1 and 3)		FT Rating — 0 HR.	
L Rating At Ambient — Less Than 1 CFM/Sq Ft		PH Ratings — 1, 2, 3 and 4 Hr (See Items 1 and 3)	
L Rating At 400 F — Less Than 1 CFM/Sq Ft		FTH Rating — 0 HR.	
		L Rating At Ambient — Less Than 1 CFM/Sq Ft	
		L Rating At 400 F — Less Than 1 CFM/Sq Ft	



Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

SYSTEM NO. W-L-1252



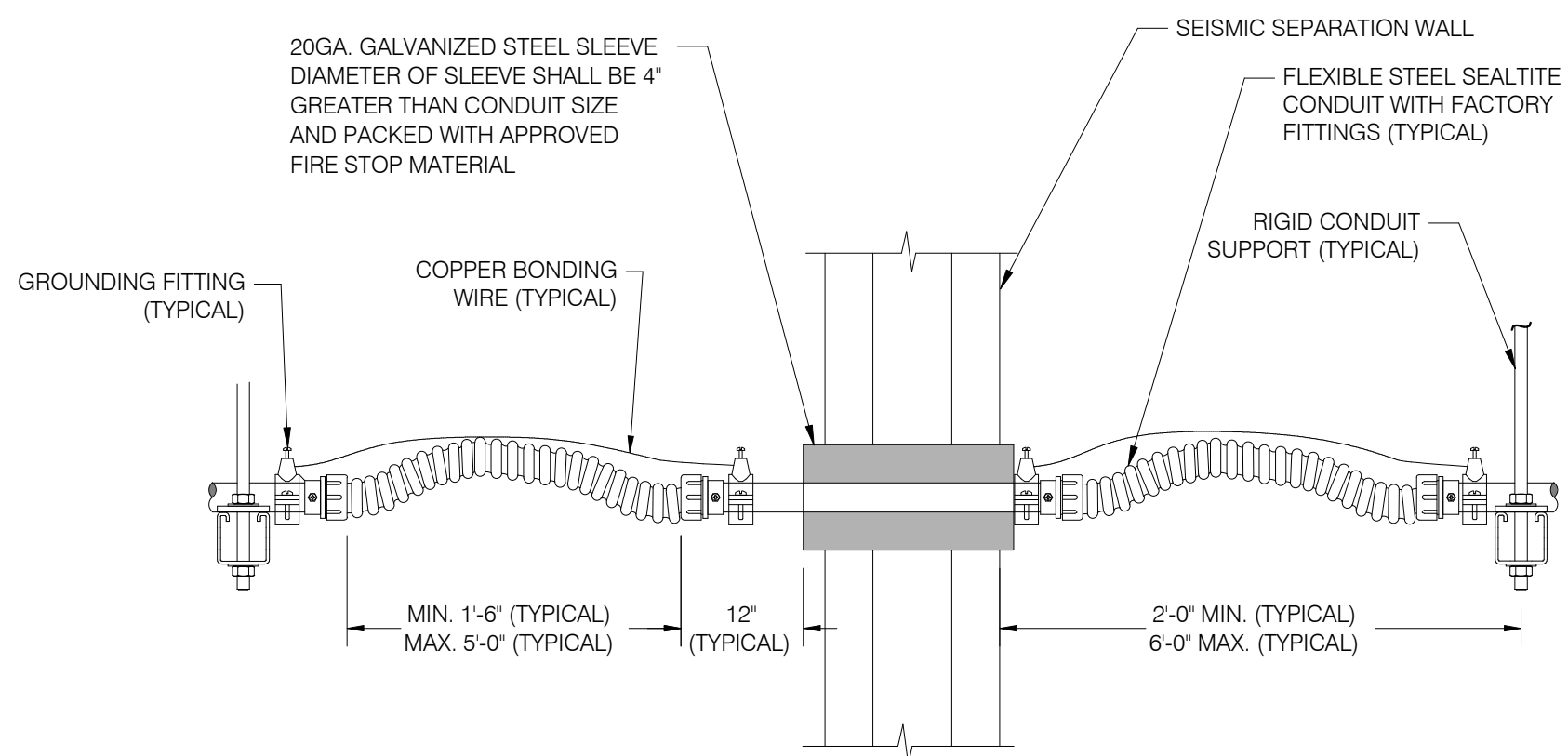
F, FH RATINGS HR	SEALANT TYPE	SEALANT THICKNESS, IN. (MM)
1, 2	FS-ONE or CP 606	5/8 (16)
3	FS-ONE or CP 606	1 (25)
4	FS-ONE	1 (25)

## NOTES

- |   |   |
|---|---|
| <p>1 WALL ASSEMBLY — THE 1, 2, 3 OR 4 HR FIRE RATED GYPSUM BOARD STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U400, V400 OR R400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:</p>   | <p>2 THROUGH PENETRANT — ONE METALLIC PIPE, CONDUIT OR TUBE TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITH THE FIRE STOP SYSTEM. THE FIRE STOP SYSTEM BETWEEN THE PIPE, CONDUIT OR TUBE AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 7/8" (22 MM). PIPE, CONDUIT OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.</p> |
| <p>A STUDS — WALL FRAMING SHALL CONSIST OF STEEL CHANNEL STUDS, STEEL STUDS, OR 2X4 (50 MM X 112 (89 MM) WIDE SPACED MAX 24" (610 MM) OC.</p>   | <p>A CONDUIT — NOM 4" (102 MM) DIAMETER (OR SMALLER) RIGID STEEL CONDUIT.</p>   |
| <p>B. GYPSUM BOARD — MIN 5/8" (16 MM) THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE, SHEET ORIENTATION SHALL AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAMETER OF OPENING IS 5-3/4" (146 MM). THE HOURLY F AND FH RATINGS OF THE FIRE STOP SYSTEM ARE EQUAL TO THE RATINGS OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.</p> | <p>B CONDUIT — NOM 4" (102 MM) DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC CONDUIT.</p>   |
| <p>3 FILL VOID OR CAVITY MATERIAL (SEALANT) — FILL MATERIAL APPLIED WITHIN ANNULAR, FLUSH WITH BOTH SURFACES OF WALL. TYPE AND THICKNESS OF SEALANT IS DEPENDENT ON F AND FH RATINGS AS INDICATED IN TABLE 1. ADDITIONAL 1/2" (13 MM) DIAMETER BEAD OF SEALANT APPLIED AT PENETRANT/GYPSUM BOARD INTERFACE AT POINT CONTACT LOCATION ON BOTH SURFACES OF WALL.</p>  | <p>4 PROVIDE HLTH FIRE STOP SYSTEM OR APPROVED EQUAL.</p>   |

## 2 1-4 HOUR FIRE RATED GYPBOARD PENETRATION

NO SCALE



## 1 CONDUIT SEISMIC SEPARATION

NO SCALE

**5G: DOOR FAN TEST ASSESSMENT PROVIDED BY FPS**

**ROOM INTEGRITY ASSESSMENT  
(THIRD ASSESSMENT)  
COMPUTER EQUIPMENT SUITE  
ORANGE COUNTY FIRE AUTHORITY  
1 FIRE AUTHORITY DRIVE  
IRVINE, CA 92602**

Specialists in Fire Systems

**INTRODUCTION**

The Orange County Fire Authority (OCFA) I.T. Department is in the process of evaluating options for fire protection in their Computer Equipment Suite located at 1 Fire Authority Drive, Irvine, CA 92602. Facilities Protection Systems (FPS) was contracted to perform a room integrity (doorfan) assessment of the Computer Equipment Suite to determine the feasibility of installing a clean agent fire suppression system.

An initial assessment was performed on December 10, 2019. The initial testing yielded passing results for the Computer Equipment Suite as a single clean agent zone, quantifiable but failing results for the Data Center as a separate zone, and no quantifiable results in the Radio Room due to the large unsealed opening between the Radio Room and the office area. Based on these results, OCFA contracted with the property management company to perform sealing repairs of the Computer Equipment Suite. OCFA then contracted with FPS to perform a second assessment to determine the effectiveness of those repairs.

The second assessment was performed on September 8, 2020. There was a minor improvement in the Computer Equipment Suite as a single zone where the hold time had risen from 11.2 minutes to 12.6 minutes. The effectiveness of room sealing was seen when the Data Center was tested as a separate zone. During initial testing, the room failed with a hold time of 5.7 minutes. After repairs, the Data Center achieved a passing hold time of 11.2 minutes. Testing in the Radio Room yielded no quantifiable results, again due to the large unsealed opening.

OCFA again contracted with property management to perform room sealing repairs on areas of leakage identified during the second round of testing. This third assessment is to determine the effectiveness of those repairs.

**GENERAL**

The third assessment was performed on February 9, 2021. Upon arrival, I.T. personnel conducted a tour a space to point out room sealing repairs that had been conducted. This included sealing of the opening in the wall separating the Radio Room from the office area. Also sealed was the underfloor opening under the doorway separating the Data Center and Radio Room. The repair to this underfloor opening completes the physical separation of the two rooms and would allow them to be zoned separately.

As with the two previous assessments, the doorfan equipment was setup in the single man door located in the southwest corner of the Data Center. CRAC units were turned off and house air registers were masked over. No other temporary sealing was performed. The required protected height was set at 9'0". This is the height of the cable trays above the depressed slab. The required retention time is set at ten minutes, the industry accepted standard. As before, the first test was for the Computer Equipment Suite as a single zone. This was followed by a test of the Data Center as a separate zone and concluded with a test of the Radio Room as a separate zone.

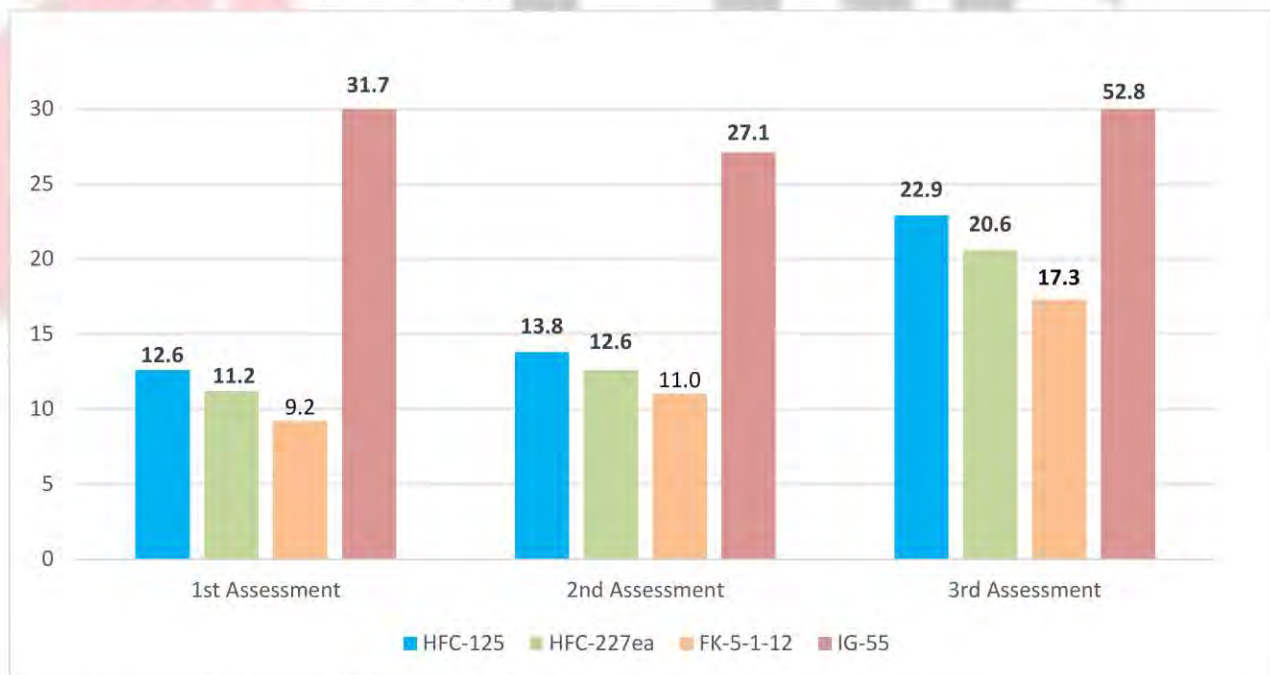
## **FINDINGS – COMPUTER EQUIPMENT SUITE**

The additional room sealing repairs yielded significant improvements of the retention times for the Computer Equipment Suite as a single zone. Table A below provides a summary of the retention times and if pressure venting is required.

AGENT SPECIFICS			VENTING REQUIRED?	
AGENT	RETENTION	PASS / FAIL	POSITIVE	NEGATIVE
ECARO-25 (HFC-125)	22.9 mins.	Pass	No	No
FM200 (HFC-227ea)	20.6 mins.	Pass	No	No
NOVEC 1230 (FK-5-1-12)	17.3 mins.	Pass	No	Yes
PROINERT (IG-55)	52.8 mins.	Pass	Yes	No

**(TABLE A – THIRD ASSESSMENT RETENTION TIMES, COMPUTER EQUIPMENT SUITE)**

Figure 1 below illustrates the improvement of retention times, in the Computer Equipment Suite, as repairs were performed.



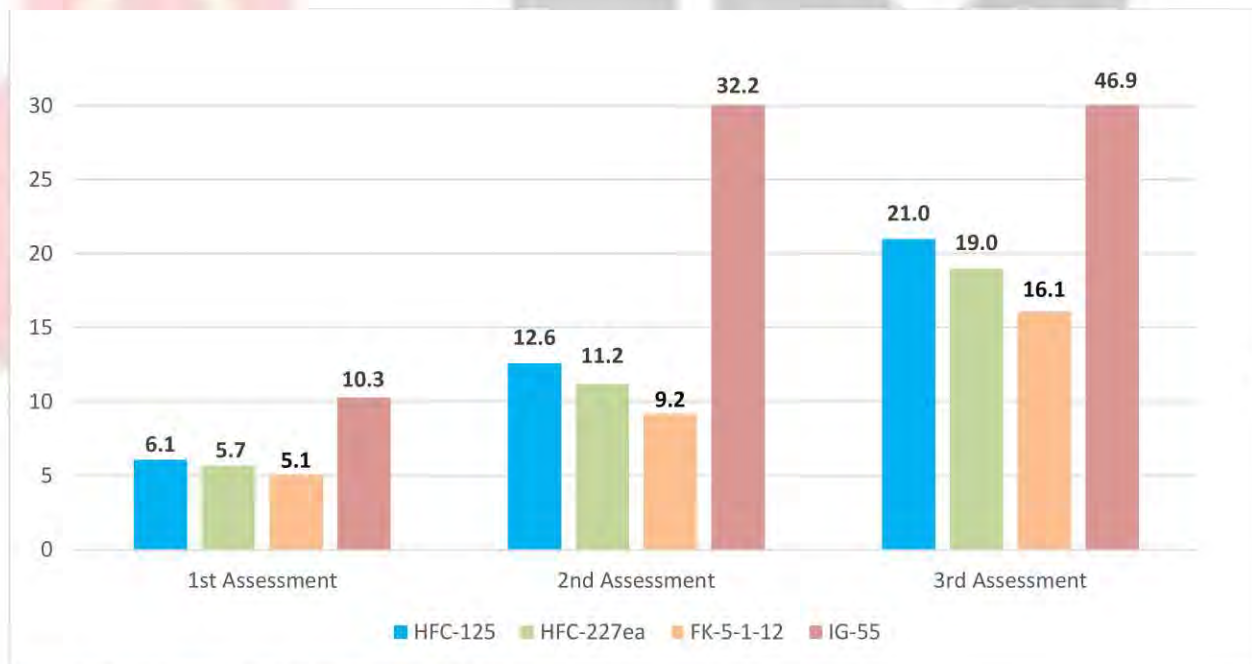
*Figure 1-Computer Equipment Suite Retention Times (in minutes)*

### **FINDINGS – DATA CENTER AS A SEPARATE ZONE**

The additional room sealing repairs again yielded significant improvements to the retention times for the Data Center as a separate zone. Table B shows the retention times for the various extinguishing agents and Figure 2 illustrates the retention time improvement, an average 65% increase across the board.

AGENT SPECIFICS			VENTING REQUIRED?	
AGENT	RETENTION	PASS / FAIL	POSITIVE	NEGATIVE
ECARO-25 (HFC-125)	21.0 mins.	Pass	No	No
FM200 (HFC-227ea)	19.0 mins.	Pass	No	No
NOVEC 1230 (FK-5-1-12)	16.1 mins.	Pass	No	Yes
PROINERT (IG-55)	46.9 mins.	Pass	Yes	No

**(TABLE B – THIRD ASSESSMENT RETENTION TIMES, DATA CENTER AS A SEPARATE ZONE)**



*Figure 2-Data Center Only Retention Times (in minutes)*

### **FINDINGS – RADIO ROOM AS A SEPARATE ZONE**

Sealing of the opening in the southwest corner of the Radio Room allowed achievement of quantifiable results. Two of the agents, HFC-125 and IG-55, have passing results at the 9'0" elevation, which is the elevation of the cable tray. Refer to Table C and Figure 3 below.

If the required protected height is lowered to 8'0" (the top of equipment above depressed slab), HFC-227ea also yields a passing result.

AGENT SPECIFICS			VENTING REQUIRED?	
AGENT	RETENTION	PASS / FAIL	POSITIVE	NEGATIVE
ECARO-25 (HFC-125)	10.4 mins.	Pass	No	No
FM200 (HFC-227ea)	9.3 mins.	Fail	No	No
NOVEC 1230 (FK-5-1-12)	7.8 mins.	Fail	No	No
PROINERT (IG-55)	25.0 mins.	Pass	Yes	No

(TABLE C – THIRD ASSESSMENT RETENTION TIMES, RADIO ROOM AS A SEPARATE ZONE)

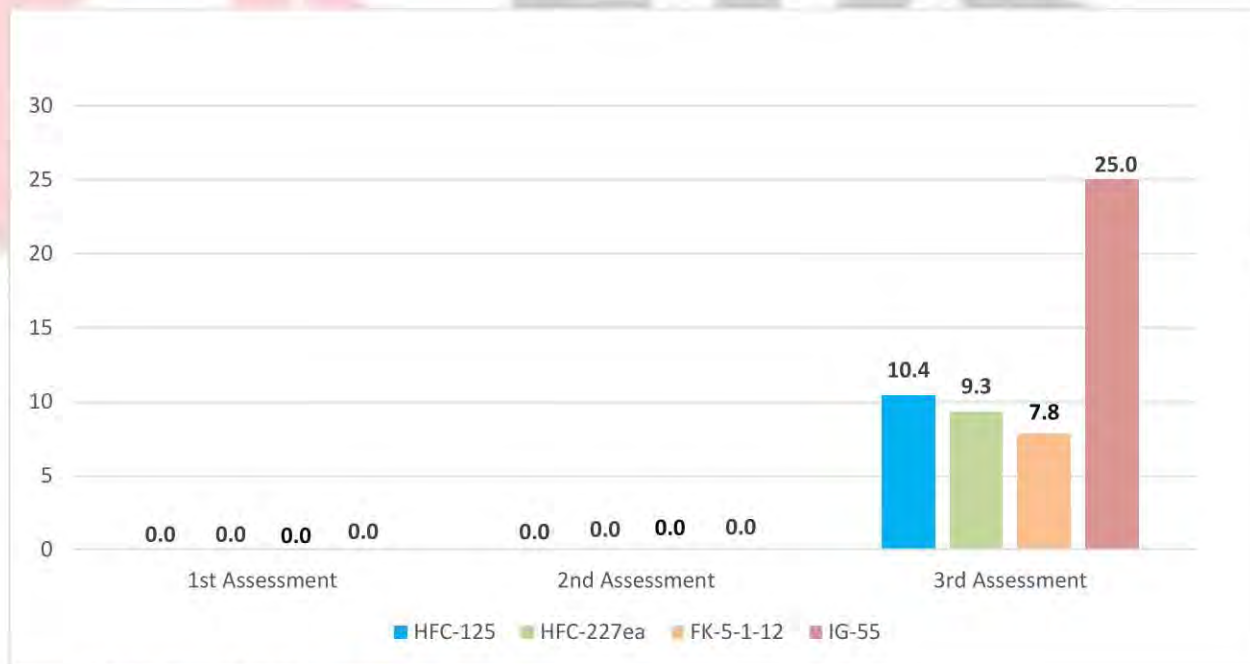
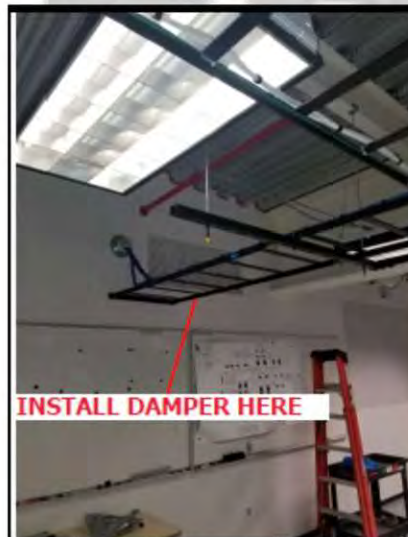
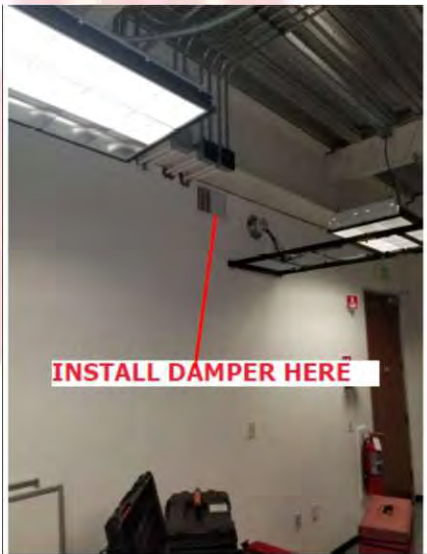
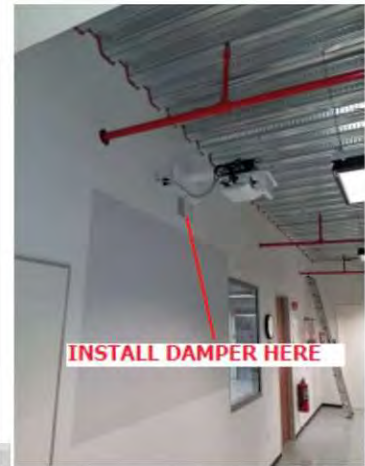
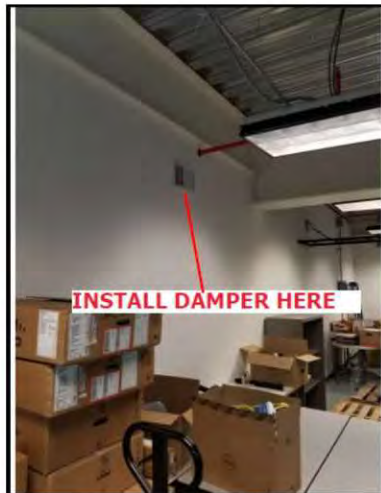
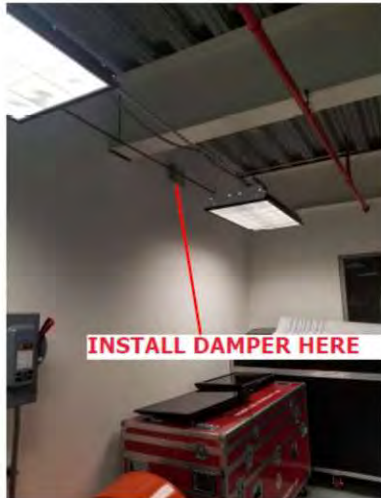


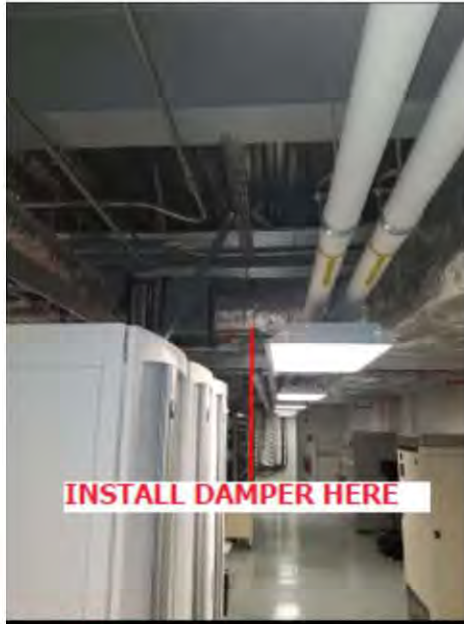
Figure 3-Radio Room Only Retention Times (in minutes)

### REQUIREMENTS

- 1) Install motorized smoke fire dampers at all house air outlets in the Data Center.



- 2) Install motorized smoke fire dampers adjacent to the return air grille and the VAV in the Radio Room



- 3) Install bottom seals on all doors in the perimeter of the Computer Equipment Suite. (PEMKO bottom seals are recommended)
- 4) Install door seal kit (astragal, bottom seal, and smoke seals) on north double doors in the Radio Room. (PEMKO door seal kits are recommended)

### **RECOMMENDATIONS**

- 1) In northeast corner of Radio Room, seal antenna cable penetration.
- 2) East side of Radio Room, seal top of wall.
- 3) Seal mechanical shaft penetrations in Radio Equipment Room
- 4) Perform fire protection assessment of critical rooms which affect the Computer Equipment Suite (e.g. electrical and UPS rooms).

## **CONCLUSIONS**

The Computer Equipment Suite, as a single zone, has been suitable for clean agent protection since the first assessment. The suitability of the Suite has improved as room sealing repairs have been performed. The room sealing repairs performed thus far now allow the Suite to be divided into two separate zones (Data Center and Radio Room) if so desired. Figure 4 below illustrates the retention times for the various agents in the various zoning configurations.



Figure 4- Retention Times for different zone configurations (in minutes)

Throughout the assessment process, HFC-125 (ECARO-25) has consistently provided the best balance between retention times (passing results in all configurations as of third assessment), required pressure venting (none required), and floor space required for agent storage containers (3-4 agent storage containers requiring ~27-36 ft<sup>2</sup>). Additionally, the low number of required agent storage containers results in lower preventative maintenance costs.

As an alternative, HFC-227ea (FM200) would be the next best choice to HFC-125 (ECARO 25) as it offers a similar balance between required floor space (same as HFC-125), pressure venting (none required), retention times (similar to but less than HFC-125), and maintenance costs. An FK-5-1-12 (NOVEC 1230) system would have a footprint similar to both HFC-125 and HFC-227ea but retention times are less and pressure venting would be required.

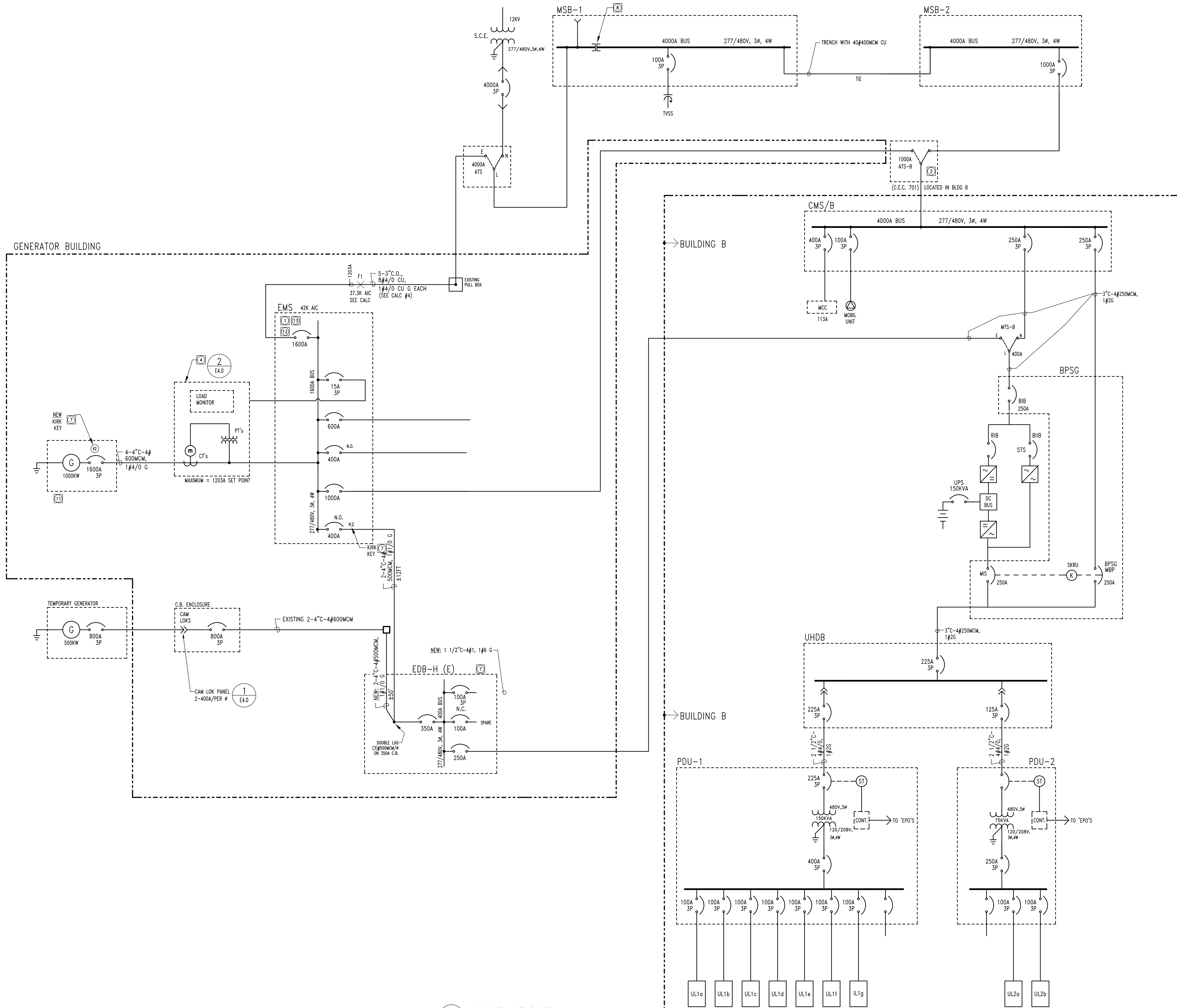
When considering retention times only, IG-55 (PROINERT) provides the best results as seen in Figure 4 above. However, the amount of IG-55 required would need approximately thirty-two (32) agent storage containers requiring a minimum 57 ft<sup>2</sup> of floor space. The room integrity test software predicts that ~2,100 in<sup>2</sup> of positive pressure venting would be required if an IG-55 system were installed. Maintenance costs would be higher as well as an IG-55 system (or any inert gas system) has a flexible discharge hose at each cylinder which must be hydrostatically tested or replaced every five years.

### **ATTACHMENTS**

1. Doorfan testing summaries.
2. Data sheets, clean agent cylinders and extinguishants

**5H: AS-BUILT PLANS (FOR REFERENCE ONLY)**





Emergency Electrical Pwr Distr Bldg B EPO  
for Regional Fire Operations and Training Center

Sht Title ELECTRICAL SINGLE LINE DIAGRAM-EPO  
Project Emergency Electrical Power Distribution Bldg B  
RFP Number:  
1 Fire Authority Road  
Irvine, California 92602

Drawn CLD  
Chkd. LDM  
Date 12/28/2019

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Revisions	Sym.	Descr.	Date	By

**MULLEN & ASSOCIATES, INC.**  
ELECTRICAL ENGINEERS  
Project Number 2019019  
1900 N. Jefferson St., Unit D Anaheim, CA 92807 (714) 932-4800

REGISTERED PROFESSIONAL ENGINEER  
LARRY D. MULLEN  
ELECTRICAL  
EXP. 04/2020  
STATE OF CALIFORNIA

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Orange County Fire Authority  
**AGENDA STAFF REPORT**

Board of Directors Meeting  
June 23, 2022

Agenda Item No. 3A  
Discussion Calendar

**OCFA Diversity, Equity, and Inclusion Initiatives**  
***from 2019 Collaboration with ACLU to 2022 Climate Survey***

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**Contact(s) for Further Information**

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**Summary**

This agenda item is submitted per Board request to provide background information to the Human Resources Committee and the Board of Directors on the March 2022 OCFA Diversity, Equity and Inclusion (DEI) Climate Survey. The survey was conducted by Interaction Metrics, an independent third-party firm, which provided for survey takers to participate anonymously.

**Prior Board/Committee Action**

At the November 2, 2021 meeting of the Human Resources Committee (HRC), the Committee received and filed the Diversity, Equity and Inclusion Internal Assessment.

At the April 14, 2022 Concurrent Joint Special Meetings of the Board of Directors, Executive Committee, Budget and Finance Committee, and Human Resources Committee, Director Shawver requested that staff bring a report to the Board of Directors on the background of the Diversity, Equity and Inclusion (DEI) Climate Survey that had been issued on March 9, 2022. Chair Steggell and Director Shawver subsequently authorized staff to review the proposed agenda item with the HRC for its input first, prior to submittal to the Board of Directors.

At the May 31, 2022 special meeting of the HRC, the Committee reviewed this proposed agenda item, which was initially focused more narrowly on specific actions leading up to the DEI Climate Survey. As a result of the HRC review, the Committee directed staff to expand the agenda report to more broadly cover other DEI initiatives that OCFA has been pursuing, including but not limited to outreach and recruitments, training, and facility renovations. The Committee directed staff to place the expanded report on the agenda for the Board of Directors meeting of June 23, 2022 with the HRC's recommendation to receive and file the report.

**RECOMMENDED ACTION(S)**

Receive and file the report.

**Impact to Cities/County**

Not applicable.

## **Fiscal Impact**

Not applicable.

## **Background**

Before we outline the many DEI initiatives that OCFA has, and continues to pursue, it is important to note that our current Fire Chief, Brian Fennessy, began his service with OCFA on April 16, 2018. On April 17, 2018, Chief Fennessy issued a memo to all personnel titled “Fire Chief Leaders Intent” which included the following statements (Attachment 1):

*“Promoting cultural and ethnic diversity as a strength and increasing the number of women firefighters within the OCFA is one of my top priorities. Diversity is not just about race or gender, it is about leveraging different thoughts and ideas, different skill sets and different approaches towards solving our problems. Diversity is what makes a team strong, it allows one person’s weaknesses to be offset by another’s strengths, creating a balance. Firefighters are problem solvers; diversity will benefit the OCFA by helping us to more easily fulfill our mission in serving our communities.”*

Our focus to promote diversity continues today, with growing momentum. We have grouped areas of focus with our DEI initiatives below, and attached a timeline to walk through this history chronologically (Attachment 2).

### **Collaboration with the ACLU – 2019 to Current**

In March 2019, one of our female fire captains (Lauren Andrade) and a representative from the American Civil Liberties Union (ACLU) came to meet with a few members of our Executive Management team. This initial meeting was an important start in building an ongoing collaborative working relationship among our ACLU-OCFA workgroup, in which open lines of communication allowed the ACLU to share ideas and expectations for creating a more gender inclusive OCFA. In return, OCFA was provided opportunities to share updates with the ACLU regarding our ongoing DEI initiatives and commitment to the same desired outcomes. While these initiatives were already very important to OCFA with energy already focused in this direction, the clearly articulated expectations communicated in a cordially-persistent manner, produced tangible results.

The following highlights some key outcomes in connection with our collaborative ACLU-OCFA workgroup, and many more outcomes are described in the attached OCFA and ACLU correspondence covering March 2019 through December 2021 (Attachment 3):

- Established a permanent “Diversity & Inclusion Coordinator” position to proactively pursue DEI initiatives.
- Created a temporary “Inclusive Facility Coordinator” which was filled by Captain Lauren Andrade as a result of an internal recruitment among OCFA Captains, Engineers and Firefighters. The temporary position was assigned to work with Logistics, Operations, and Human Resources in partnership with a contracted Project Manager/Design Engineer to survey all OCFA facilities and develop scope and priorities for future facility renovations needed to enhance OCFA’s inclusive environment. (See more detail under “Lactation Accommodations” and “Inclusive Facility Renovations.”)

- Hired an additional “OCFA Construction Manager” position to expedite progress on facility renovations for additional bathrooms and showers.
- Created improved tracking of statistics related to gender and ethnicity throughout OCFA’s Firefighter Trainee recruitment processes, from application to academy graduation. The improved tracking enables OCFA to build targeted recruitment plans and training initiatives focused on areas that may be negatively impacting diversity.
- Obtained validation of the OCFA’s Firefighter Trainee manipulative testing process to ensure the testing requirements were properly matched to entry-level job requirements. This validation was performed in multiple phases by an external and independent firm, with recommendations implemented upon conclusion of each validation phase.

### **Lactation Accommodations**

OCFA promotes a work environment that is supportive of employees who breastfeed and wish to continue nursing their children when they return to work. To fulfill this key element of OCFA’s overall DEI initiatives, work was completed to finalize and implement a Lactation Accommodations Policy, which was issued in September 2021, and to improve lactation accommodations at all OCFA facilities.

As of June 1, 2021, lactation accommodations had been installed in all facilities. As a result, all OCFA Fire Stations, Fire Prevention Offices, and RFOTC have a designated lactation facility for safety and non-safety personnel (where applicable).

### **Bathroom & Shower Facility Renovations**

While all OCFA facilities currently meet a threshold of providing restrooms and showers for use by male or female firefighters, in complete privacy, without fear of interruption, the current manner in which privacy is provided may be via a lock on a multi-user restroom, or other mechanism that does not ultimately meet the level of gender accommodation we are striving to fulfill.

To that end, we are continuing our efforts to improve our facilities so that they exceed this threshold. This is being accomplished by providing either single-user restrooms that are gender neutral, or by providing separately designated restrooms for male and female firefighters at every fire station. This initiative will continue until these improvements are complete at all of our stations, a goal that is well on its way to fruition.

- Currently, we have achieved this level of gender accommodations in more than 60% of our stations (50 of 77 stations).
- An additional three stations will begin construction of the improved restroom and shower facilities in July, and two additional stations will begin design this summer for future construction.
- To summarize the speed at which we are making these improvements, in July of 2021, we had a total of 43 stations with permanent gender-neutral facilities. By the end of this year, we will have 53, a nearly 25% increase in just 18 months.

### **Outreach & Recruitment**

In June 2019, OCFA developed an Outreach & Recruitment Team (ORT) to support short and long-term firefighter trainee recruitment goals, with a focus on promoting and advancing diversity. The ORT is comprised of a diverse group of Operations personnel from all ranks and backgrounds assembled to perform targeted outreach, recruitment, and mentorship. The ORT attends recruitment events that target potential candidates from historically underrepresented populations, such as those transitioning from military service, or competitive athletes (See Attachment 4 - Job Fairs). The ORT also works to establish and maintain relationships with fire academy instructors, Emergency Medical Technician programs, and high school and collegiate level athletic directors.

Within OCFA, the ORT facilitates voluntary, pre-academy workout programs for participants who are in-process to enter our Firefighter Trainee academies. This element of the program is designed to prepare these recruits for the physical demands of the academy and demonstrate the manipulative skills needed for success. The ORT mentors these candidates by providing nutritional support and fire service cultural insights. The intent is to continue evolving the ORT in a manner where they also participate in selection processes as oral interview panel raters and/or members of the Firefighter Academy Cadre.

Complementing the work of the ORT, our Corporate Communications Division continues to engage in outreach campaigns in a different manner through targeted recognition of our own diverse workforce (both current and retirees) in alignment with the federally established months for recognizing the outstanding achievements of historically underrepresented groups. Using OCFA's social media platforms, we celebrated Black History Month in February 2022, Women's History Month in March 2022, and Asian American & Pacific Islander History Month in May 2022 and featured the accomplishments of our own trailblazers within OCFA's workforce from each of these groups. While it is impossible to quantify how many residents of all ages, genders, cultures, and backgrounds viewed these feature stories and gained a sparked interest to pursue similar fire service careers, various studies confirm that representation matters and does promote a diverse workforce.

### **Training Programs**

For external training programs, OCFA hosts an annual Girls Empowerment Camp (GEC), which is a free two-day camp (open to teens ages 14-18) that introduces them to the fire service. As indicated by the title "Girls" Empowerment Camp, we seek to attract females into the fire service by increasing their awareness of firefighting as a career option at a young age. And while the overwhelming majority of GEC's participants are female (approximately 97% at our last in-person event in 2019), due to the Unruh Civil Rights Act for public accommodations, we may not exclude teens who identify as male. Thus far, we have hosted three GEC events including June 2019, March 2020, and June 2022.

For internal training programs within the organization, OCFA's Diversity & Inclusion Coordinator and OCFA General Counsel/Labor Relations, began providing training programs during this last year relative to DEI within the OCFA's Fire Captain and Battalion Chief Academies. This additional training focused on:

- Clarifying Terms and Definitions
- Orange County and OCFA Demographics
- OCFA Diversity, Equity & Inclusion Statement and Principles (Attachment 5)
- DEI Fire Service Scenarios (Gender, Race, etc.)
- Promoting DEI in Fire Stations and at the Chief Officer Level

These internal training programs were recently developed, as a result of OCFA now having a position specifically focused on DEI. As indicated below under “DEI Climate Survey,” aggregate themes are being identified as a result of feedback provided from our employees, which will be used to build additional proposed training initiatives designed to advance diversity, equity, and inclusivity in OCFA. Despite COVID impacts, the Coordinator participated in job fairs at high schools and middle schools, virtually and in person, in key target areas.

Furthermore, OCFA is currently transitioning its Firefighter Trainee Academy to a format which is formally accredited by the State. Part of the requirements to maintain accreditation is to demonstrate continued progress in the diversity of both the recruits in our academies as well as the members of the academy cadre. We must show proof of advancement to the State Board of Fire Services towards the objective of our workforce mirroring the communities we serve. Funding was authorized by the Board of Directors in the FY 2022/23 Adopted Budget to complete our transition to an Accredited Local Academy (ALA), and we anticipate that our August 2022 academy will be conducted as an ALA.

OCFA’s unique perspective on sexual harassment and discrimination prevention, with a focus on supporting DEI conversations in the workplace, has garnered recognition by the California Public Employment Labor Relations Association, resulting in OCFA being invited to speak at its upcoming annual conference in November 2022.

#### **Diversity, Equity and Inclusion Climate Survey**

As detailed throughout this staff report and in the attached timeline, beginning with the Fiscal Year 2019/20 budget, OCFA began to take even more steps, intentionally and proactively, to enhance OCFA’s diverse and inclusive work environment. This included the creation of a Diversity and Inclusion Coordinator and adoption of goals and initiatives in the 2019/20 Annual OCFA Strategic Goals.

The attached timeline lists the actions taken as of November 2020, beginning with the hiring of Julián Velarde as the first Diversity and Inclusion Coordinator and efforts to update the Human Resources Committee and Board of Directors on the progress of DEI leading up to the survey.

In March 2022, the Human Resources Department solicited quotes to secure survey services from external vendors which resulted in three quotes being evaluated by staff. Interaction Metrics was selected based on the contract cost, availability, knowledge and expertise of the vendor to conduct an independent survey of OCFA personnel. Interaction Metrics assisted OCFA staff in developing the survey parameters including the range and scope of questions that are consistent with common survey strategies.

The purpose of the DEI Climate Survey is to solicit meaningful feedback from OCFA employees on a variety of DEI topics; to inform executive management as they develop strategic goals and initiatives that reflect the common experience of OCFA employees; and to identify ways that we may be able to measure and track progress on these initiatives. The deployment of the survey and accumulation of responses was handled exclusively by Interaction Metrics. Neither OCFA Management nor staff was involved in collecting or receiving the anonymous responses submitted by individual employees directly to Interaction Metrics, ensuring employee anonymity throughout the survey. In total 717 full and partial responses were received after a two-week survey window.

The second phase of the survey process is currently underway, which includes quantifying responses, identifying trends in the data and comments, and developing a reporting tool that can be shared with the Board of Directors and staff. Aggregate themes are being identified to build proposed initiatives designed to advance diversity, equity, and inclusivity in OCFA.

### **Conclusion**

We are proud of the many actions already undertaken or initiated as outlined herein, and yet we are keenly aware that our DEI work remains in its early stages, with much continued effort ahead. We look forward to partnering with our Board of Directors, our employees and labor associations, and the communities we serve to continue advancing DEI.

### **Attachment(s)**

1. Fire Chief Leaders Intent – April 17, 2018
2. Chronology of Diversity, Equity & Inclusion Initiatives
3. OCFA & ACLU Correspondence
4. OCFA Participation in Job Fairs
5. OCFA Diversity, Equity & Inclusion Statement and Principles

# M E M O

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DATE: April 17, 2018

TO: All Personnel

FROM: Brian Fennessy, Fire Chief

SUBJECT: **Fire Chief Leaders Intent**

As I start as your newly appointed Fire Chief, I thought it appropriate to share with you more about what is important to me personally, and some points about my expectations, priorities, and the vision for our organization.

First and foremost, I want to thank all of you who have offered me your encouragement, well wishes, and congratulations during the fire chief appointment process—I sincerely appreciate your support. I am extremely proud and humbled to have the opportunity and privilege to serve as the Orange County Fire Authority (OCFA) Fire Chief. I appreciate your welcoming me to the OCFA family!

In advance of this day, I've spent considerable time preparing for the position since first becoming interested in December. While this preparation has been substantial, there is much yet for me to learn about you and the operational culture of the organization. My experience has been that the best way to learn more about what is important to the members is to meet with as many of you as possible through station visits, planned training and exercises, and during the responses to fires and other emergency incidents. I believe that there is no better way to learn "ground truth" than through listening to the perspectives of those closest to the operation.

Listening is a leadership responsibility that does not appear in my formal job description, but it will be vitally important to our shared success. It's been my experience that those leaders who listen to their employees are in a much better position to lead their organizations to greater levels of success. Through understanding the various concerns and ideas being voiced, leaders like myself can dramatically improve and remove obstacles to greater levels of business and operational performance. It also demonstrates that you care about your people and our collective results.

I have been closely following the more recent and public issues and challenges. In case some of you are wondering, I am walking into OCFA with eyes wide open. In today's world, there is no such thing as a "honeymoon" period. The expectation is and should be that any new leader of an organization hits the ground running. Without question, a change in leadership at the top will always cause varied levels of anxiety across an organization. While there is still a large volume of information and an operational culture I need to better understand, this won't deter me from making critical decisions early in my tenure. A few of these decisions will have consequences

that some will not support or agree with; however, few changes in our day-to-day operations will occur in the immediate future.

I believe that when a change of leadership at the fire chief level is made, there exists an opportunity for exploring new and improved ways of accomplishing our mission, providing for our employees, and ultimately improving services to the communities we serve. To that end, I have described below some of my vision for the OCFA organization.

I believe that leader development is a shared responsibility of the employee and employer. While every organization has some good leaders with natural abilities, there is a big difference between *some* leaders doing the right things and *most* leaders doing the right things. For this reason, we will be focusing our attention on building stronger leadership within the OCFA. This includes providing formal leadership development and training at all levels of our organization.

I believe that investing in the safety, health, and welfare of our firefighters is a serious obligation and one that is not to be taken lightly. Serving our communities is an important priority; however, if we don't provide for our employees first, we will not be able to serve at the highest-level possible. To that end, we will make it a priority to ensure that our firefighters continue to be physically and mentally fit for duty.

Promoting cultural and ethnic diversity as a strength and increasing the number of women firefighters within the OCFA is one of my top priorities. Diversity is not just about race or gender, it is about leveraging different thoughts and ideas, different skill sets and different approaches towards solving our problems. Diversity is what makes a team strong, it allows one person's weaknesses to be offset by another's strengths, creating a balance. Firefighters are problem solvers; diversity will benefit the OCFA by helping us to more easily fulfill our mission in serving our communities.

I believe that there is no greater risk to lives and property than the threat of wildland fires occurring in Orange County. Another one of my highest priorities will be to ensure that all areas of the County where wildland fire exposes the community to risk become more "fire adapted."

Also important to me is our becoming a more "Mission-Driven Culture" (MDC). Mission-Driven Culture describes a set of principles for operating successfully despite friction, danger, and uncertainty. It defines key values and attitudes that generate cohesive and adaptive action, strengthening resilience in times of uncertainty. These values include the aggressive pursuit of truth as well as communicating intent to promote decision-making and initiative among those in the field.

In pursuance of this vision, we will be laying a solid groundwork for workforce development and cultural advancement through the:

- Development of foundational organizational doctrine
- Mapping organizational doctrine to leader behavior and culture
- Policy and rule alignment, including safety and risk management
- Executive and workforce education

I believe in moving toward the goal of an organizational culture which is transparent in its goals, objectives, and decision-making, and that shares information extensively. An organization that has *thoughtfully and deliberately* pushed decision-making down to the lowest possible level is much more agile, creative, and effective than organizations that are led in a traditional top-down manner.

It goes without saying that in the past few years the OCFA has undergone a lot of change, both planned and unplanned. Moving into the next evolution we need to first ask “*where do we want to be*”? The answer may be a little foggy during times of uncertainty, but taking the time to answer it is essential in successfully implementing change. Creating a shared vision will allow us all to better understand why change is taking place and how it affects us in our given job roles.

Change is enacted by people – most often on the front line and enabled by division, battalion, and support leaders. I recognize that communicating with employees who will play an essential role in executing change is better done sooner than later. As the Fire Chief, I may have a say on what changes are going to take place, but you will be the ones who have to implement the change.

In the end, change is inevitable. Compassion for people affected by change is critical to leadership. Equally important is my resolve to move through road blocks and resistance in order to provide the best service possible to the citizens of Orange County and the cities we protect. We have a lot of work to do to rebuild trust with those we serve and with each other. When it comes to mutual trust, steady state is not where I want to be. My job is to move us forward.

It’s all about the climate of acceptance within the OCFA. Vision requires the ability to look ahead, to listen, and most of all it requires a lot of hard work to see the vision actualized.

My vision for the OCFA includes that we are the most progressive 21<sup>st</sup> century fire service organization in the United States. An organization known for its cohesion, adaptiveness, and resilience. The key to this success is through vision, rebuilding trust, and a deep sense of purpose.

Let’s get started.

**Orange County Fire Authority**  
**Diversity, Equity & Inclusion Initiatives**  
*from 2019 Collaboration with ACLU to 2022 Climate Survey*

- **March 15, 2019 to Current** – Initial meeting was held with OCFA and ACLU establishing open lines of communication in which we began to share ideas and expectations for creating a more gender inclusive OCFA. From there forward, periodic in-person meetings continued, written communications have been routinely exchanged, and updates provided to demonstrate our commitment to advancing diversity, equity and inclusivity in the OCFA.
- **April 2019** – OCFA sponsored all of our interested female firefighters to attend the annual “Women in Fire” conference as an opportunity for training, networking, and professional mentorship tailored specifically to female firefighters. When the annual conference resumed post-COVID in 2021, OCFA again sponsored attendance for our female firefighters who desired to attend.
- **May 23, 2019** – The Board of Directors adopted the FY 2019/20 Budget, including approval for a newly created position of “Diversity & Inclusion Coordinator.”
- **June 5, 2019** – OCFA opened an internal recruitment to all Operations personnel seeking volunteers to serve as the new Outreach & Recruitment Team (ORT). The ORT was designed and implemented to engage in targeted diversity recruitment activities, attend community events, identify potential firefighter candidates, and serve as a mentor to guide candidates to thrive at the OCFA.
- **June 29-30, 2019** – OCFA hosted its first annual Girls Empowerment Camp (GEC). The GEC is a free two-day camp, open to teens ages 14-18. Through our GEC, we seek to attract females into the fire service by increasing their awareness of firefighting as a career option at a young age.
- **FY 2019/20** – Per direction provided by the Board of Directors to Fire Chief Fennessy, Initiative #2d was included under Goal #2/Our People of the OCFA’s Annual Strategic Goals, which stated:  
*“Implement actions to increase the diversity of OCFA’s workforce and to improve the OCFA’s inclusive environment, including a focus on cultural growth, consistent messaging, and facility accommodations.”*

This initiative remained an important component of the OCFA’s Goals in FY 2020/21 and 2021/22 with quarterly updates provided to the Board regarding actions taken to propel the initiative forward.

- **January 16, 2020** – OCFA opened an internal recruitment to all Operations personnel to fill a temporary position of “Inclusive Facilities Coordinator.” The position was assigned to work with Logistics, Operations, and Human Resources in partnership with a contracted Project Manager/Design Engineer to survey all OCFA facilities and develop scope and priorities for future facility renovations needed to enhance OCFA’s inclusive environment.

**Orange County Fire Authority**  
**Diversity, Equity & Inclusion Initiatives**  
***from 2019 Collaboration with ACLU to 2022 Climate Survey***

- **March 7-8, 2020** – OCFA hosted its second annual Girls Empowerment Camp (GEC). The GEC is a free two-day camp, open to teens ages 14-18. Through our GEC, we seek to attract females into the fire service by increasing their awareness of firefighting as a career option at a young age.
- **November 10, 2020** – The Human Resources Committee (HRC) approved the new “Diversity & Inclusion Coordinator” class specification.
- **May 24, 2021** – OCFA hired Julian Velarde as Diversity and Inclusion Coordinator.
- **June 1, 2021** – Following thorough project scoping and planning, work was completed to install lactation accommodations at all OCFA facilities. This included all fire stations, Fire Prevention offices, and the RFOTC for provision of accommodations to all safety and non-safety personnel.
- **November 2, 2021** – Julian Velarde presented to the HRC on the “Diversity, Equity, and Inclusion (DEI) Internal Assessment”, including a slide titled “DEI Next Steps...” (attached hereto) which outlined:
  - ✓ Conduct an anonymous DEI Climate Survey (Jan/Feb 2022)
  - ✓ Use DEI Climate Survey results to determine focus and direction on DEI trainings, initiatives, policies, and programs
  - ✓ DEI Organizational Framework
- **February 2022** – Using OCFA’s social media platforms, we celebrated Black History Month to recognize the outstanding achievements of our own diverse workforce.
- **February 24, 2022** – The Fire Chief’s Report to the Board of Directors stated that the DEI survey would soon be issued to all employees.
- **March 2022** – Using OCFA’s social media platforms, we celebrated Women’s History Month to recognize the outstanding achievements of our own diverse workforce.
- **March 8, 2022** – The Fire Chief sent a letter to all employees and shared the letter with the Board of Directors for International Women’s Day; letter stated:

*“...as far as we have come, the gender gap that exists across the fire service at the local, state, and federal level indicates we still have work to do. Here at OCFA, our upcoming DEI climate survey will support us in being even more intentional in this endeavor....”*
- **March 9, 2022** – The DEI Survey was issued to all OCFA employees by Interaction Metrics.
  - ✓ Interaction Metrics was selected via informal quotation solicitation for a cost of \$9,600
  - ✓ The only way to access and respond to this survey was by using the link sent directly from Interaction Metrics to OCFA employees
  - ✓ Although Chief Fennessy sent an email encouraging participation, as noted below, his email did not contain a link to for employees to respond to the survey.

**Orange County Fire Authority**  
**Diversity, Equity & Inclusion Initiatives**  
***from 2019 Collaboration with ACLU to 2022 Climate Survey***

✓ The survey was maintained anonymous and performed independently by Interaction Metrics.

- **March 9, 2022** – Chief Fennessy sent an email to all employees regarding the DEI Survey stating:  
*“...the survey is part of our larger effort to be more intentional in our engagement and support of DE&I for the OCFA. I strongly encourage you to take this survey as your participation will shape our strategic DE&I direction and progress.”*
- **March 17, 2022** – The Fire Chief’s Monthly Bulletin for March was distributed to the Board of Directors with the letter for International Women’s Day embedded therein, referencing the DEI survey.
- **March 24, 2022** – Public Comments were made by several callers at the Board of Directors meeting regarding the DEI survey, indicating what they believed to be a perceived lack of independence and lack of anonymity in the manner in which the DEI survey was issued
  - ✓ Chair Steggell called on Chiefs Fennessy and Holloman to clarify the survey and Chief Holloman informed the Board that the DEI Climate Survey was performed independently by an external vendor, with responses maintained anonymous to OCFA
- **April 14, 2022** – OCFA Director of Communications, Matt Olson, sent a document titled “*OCFA BOD Fact Sheet – 4.14.22*” to the full Board of Directors which contained a section on page 1 for “OCFA’s Externally Facilitated Culture Survey” and which itemized facts surrounding the Diversity, Equity and Inclusion (DEI) Survey.
- **April 2022 to Current** – Responses from the DEI Survey were assimilated into a dashboard by Interaction Metrics for OCFA’s use; aggregate themes are being identified to build proposed initiatives designed to advance diversity, equity, and inclusivity in OCFA
- **May 2022** – Using OCFA’s social media platforms, we celebrated Asian American & Pacific Islander Month in May 2022 to recognize the outstanding achievements of our own diverse workforce.
- **May 26, 2022** - The Board of Directors adopted the FY 2022/23 Budget, including approval for positions required for OCFA to transition its Firefighter Trainee Academy to an Accredited Local Academy, which among many other benefits, will require OCFA to demonstrate continued progress in the diversity of both the recruits in our academies as well as the members of the academy cadre.
- **June 25-26, 2022** – OCFA will host its third annual Girls Empowerment Camp (GEC). The GEC is a free two-day camp (open to teens ages 14-18) that introduces them to the fire services. Through our GEC, we seek to attract females into the fire service by increasing their awareness of firefighting as a career option at a young age.

**Orange County Fire Authority**  
**Diversity, Equity & Inclusion Initiatives**  
*from 2019 Collaboration with ACLU to 2022 Climate Survey*



# DEI Next Steps...

- 1. Conduct an anonymous DEI Climate Survey (Jan/Feb - 2022)**
- 2. Use DEI Climate Survey results to determine focus and direction on DEI trainings, initiatives, policies, and programs**
- 3. DEI Organizational Framework**
  - Programs/Activities
    - Recruitment & Outreach efforts, GEC, Cadet programs, MarCom, etc.
  - Promotional/Internal Hiring Processes
  - DEI Trainings
  - DEI Metrics
  - DEI Committee/Task Force

**From:** Aditi Fruitwala <[AFruitwala@aclusocal.org](mailto:AFruitwala@aclusocal.org)>  
**Sent:** Tuesday, March 26, 2019 10:15 AM  
**To:** Fennessy, Brian <[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)>; Zeller, Lori <[LoriZeller@ocfa.org](mailto:LoriZeller@ocfa.org)>  
**Cc:** lauen andrade <[landrade4411@yahoo.com](mailto:landrade4411@yahoo.com)>; Minouche Kandel <[MKandel@aclusocal.org](mailto:MKandel@aclusocal.org)>  
**Subject:** Follow-up from meeting re gender inclusivity on 3-15

**CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

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Dear Chief Fennessy and Deputy Chief Zeller:

Thank you for taking the time to meet with Lauren Andrade and me on Friday, March 15. We appreciate your stated commitment to advancing gender equity and inclusivity in the Orange County Fire Authority, and we look forward to working on this endeavor together. I have summarized below the follow-ups from our meeting:

- 1) As you requested, my colleague Minouche Kandel (cc-ed here) and I will provide you with a memo outlining best practices for enacting our proposals, along with a summary of how other fire departments in California have retrofitted their facilities, increased transparency and objectivity in hiring and promotion criteria, and cultivated a culture of gender inclusivity.
- 2) You will gather and provide us information on: the allocated budget for the restroom and shower facilities; the number of fire stations in Orange County that lack a designated women's restroom and shower facility, and the hurdles you're facing in starting the process.
- 3) You agreed to provide implicit bias training to staff at OCFA.

As we advise on hiring and promotion practices, it would be helpful to receive job descriptions and hiring criteria for all positions, including special assignments, that you're able to share. We are also happy to submit a Public Records Act request, if you would like a formal request.

We hope to exchange this information by April 19<sup>th</sup>. Please let me know if the above does not comport with your understanding of our commitments made in the meeting. Thank you for your willingness to collaborate on this issue.

Best,  
Aditi

Aditi Fruitwala  
Staff Attorney, LGBTQ, Gender & Reproductive Justice Project  
Pronouns: she/her/hers  
ACLU of Southern California  
1313 W 8th Street, Suite 200  
Los Angeles, CA 90017  
(o) 213.201.8941  
[afruitwala@aclusocal.org](mailto:afruitwala@aclusocal.org)  
@aditifruitwala



# ORANGE COUNTY FIRE AUTHORITY

P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602

Brian Fennessy, Fire Chief

(714) 573-6000

[www.ocfa.org](http://www.ocfa.org)

April 17, 2019

Aditi Fruitwala, Staff Attorney  
American Civil Liberties Union Foundation  
1313 West 8<sup>th</sup> Street  
Los Angeles, CA 90017

Sent via email: [afruitwala@aclusocal.org](mailto:afruitwala@aclusocal.org)

Dear Ms. Fruitwala:

It was a pleasure to meet with you last month. On behalf of OCFA, I wish to share my appreciation for your support of our efforts to create a more gender-inclusive environment at the Orange County Fire Authority (OCFA). Our Executive Management team shares your interest in ensuring all members of the OCFA are afforded a fair and equitable workplace. To this end, some of the actions that OCFA has taken, and/or are underway, include the following:

- Proposed funding in the upcoming FY 2019/20 Draft Budget to add a new position in the Human Resources Department solely focused on Diversity & Inclusion (otherwise referred to as a "Diversity Officer" or "Equity Officer")
- Establishment of a new initiative/committee focused on Outreach, Recruitment, & Retention. This Committee's mission is to improve the diversity of OCFA's workforce by increasing the diversity of OCFA's candidate pools, providing support throughout the selection process, and establishing mentorships to ensure our new employees thrive at the OCFA.
- Retention of iHeartMedia marketing services to increase OCFA's advertising and outreach efforts to attract populations currently underrepresented in our workforce.
- OCFA-sponsored membership for all interested female firefighters in "Women in Fire" (formerly known as International Association of Women in Fire & Emergency Services, or iWomen) along with OCFA-sponsored attendance to the annual conference in April 2019.
- Retention of Jona Olsson, Cultural Bridges to Justice, to provide consulting services beginning April 29, 2019 and training services commencing at the end of 2019 and continuing into early 2020. Ms. Olsson's training is entitled, "*United in Service – Inclusion, Diversity, & Our Mission*," and will be targeted initially to all OCFA Chief Officers and Company Officers. In the future, OCFA anticipates expanding the training beyond Operations to all areas of the OCFA.

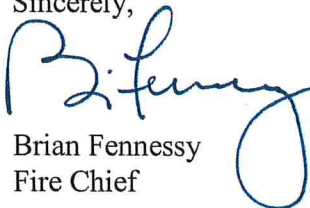
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- Capital Improvement Program (CIP) projects involving the modification of Fire Station facilities and bathrooms for gender neutrality are included in the upcoming fiscal year's CIP budget and continuing across multiple years of the five-year CIP.
  - In addition, OCFA obtained support from the Capital Improvement Program Ad Hoc Committee (a sub-committee of the Board of Directors) to offer financing to OCFA's cash contract member cities, which own their own city fire stations, since some of these cities have inadequate funding available to accommodate the needed facility improvements on their own.
  - Furthermore, the OCFA is in the process of completing a Request for Proposals competitive process to retain multiple design, engineer, and construction project managers via contract, enabling OCFA to move more quickly with execution of these planned projects.
- Continued improvements in transparency and consistency of our specialty assignment selection processes. In your email dated March 26<sup>th</sup>, you requested job descriptions for all positions, including special assignments. The OCFA maintains class specifications for each rank, and each rank may be assigned to specialty assignments from time-to-time; however, unique job class specifications are not created for specialty assignments. In my prior employment with San Diego, we did prepare bulletins for specialty assignments. I have begun working with Operations personnel to begin establishing consistent bulletin formats for specialty positions here at OCFA.

These are examples of the many efforts underway at the OCFA to improve the culture and environment for all employees, including those from underrepresented groups. I thank you again for your support and welcome future follow-up on our progress.

Sincerely,



Brian Fennessy  
Fire Chief

Attachments

cc: Lori Zeller, Deputy Chief  
Administration & Support Bureau

Tia Grasso  
Human Resources Manager

Lauren Andrade  
Fire Captain

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June 10, 2019

Chief Brian Fennessy  
Orange County Fire Authority  
1 Fire Authority Road  
Irvine, CA 92602

Via e-mail: [brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)

Dear Chief Fennessy:

We are writing to respond to your letter of April 17, 2019, and after review of the proposed budget for the Orange County Fire Authority. We appreciate the open lines of communication.

### **Ensuring Gender Inclusive Facilities**

We were pleased to see that 13 stations are marked for bathroom renovations in the budget, and we had some follow up questions. When we met in March, you agreed to survey the fire stations and determine how many of them currently have separate bathrooms for men and women. The budget addresses bathroom upgrades "to accommodate gender needs" at 13 stations (14, 16, 32, 35, 44, 70, 72, 73, 78, 82, 83, 84, and 85). It also notes remodeling or modifying bathrooms at fire stations 13, 26 and 44, and replacing fire stations 9, 10, and 12. Will those fire stations have separate bathrooms for men and women? It is difficult to assess the current proposal without knowing how many stations currently do not have separate facilities for men and women. **We would appreciate your providing us with a list of all fire stations that currently have separate shower facilities for men and women.**

It was also unclear from the budget language what type of renovations are being contemplated. The budget refers to "gender neutral" bathroom accommodations. **We would appreciate an understanding of exactly how you are proposing to design these bathrooms.** Multi-use gender neutral facilities do not comply

with state statutes, or with legal precedent interpreting Title VII, as we outlined in our earlier communication.<sup>1</sup>

Other fire departments in California have installed separate bathrooms for men and women. The City of Los Angeles Fire Department has 108 fire stations, and they all have separate bathrooms for men and women. San Diego City Fire Department has 52 stations and they all have either separate bathrooms for men and women or modular single occupancy bathrooms.

The budget indicates that OCFA will “continue to explore alternatives and funding sources to address gender neutral bathroom accommodations for all OCFA facilities within the next 5 years.” Is it your intent to have “gender neutral” facilities in place within 5 years? Again to be clear, multi-use “gender neutral” facilities do not comply with anti-discrimination laws, so we would like more information on what kind of bathroom configuration you are envisioning ((i.e. single user, separate for men and women; modular, etc.).

### **Lactation Accommodations**

The budget also makes no mention of lactation accommodations, which are required under state and federal law.<sup>2</sup> Having surveyed best practices of neighboring cities and counties, we recommend following the model of Los Angeles, which allows pregnant and lactating people to opt for light duty work if they need a job free of toxins, as it's well-documented that the toxins from fighting fires can be found in breastmilk.

We also recommend implementing a policy that allows pregnant and lactating people to be on the no-force list. Unpredictable schedules render it impossible for lactating people to ensure their breastmilk is available for their babies. To adequately accommodate the needs of new parents, lactating people should have the option to have a regular, predictable schedule.

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<sup>1</sup> California's Labor Code requires separate toilet facilities for each sex if there are five or more employees not of the same gender. 8 CCR § 33364(a). Similarly, separate showers must be provided for men and women if there are five or more employees. 8 CCR § 3366(f)(1). Both of these statutes apply to county employers. Even if a fire station currently has fewer than 5 employees, failure to provide a designated women's restroom discourages women from working in that fire station, which could hinder their ability to gain experience and promote, and is violative of Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. § 2000e, et seq) and the California Fair Employment and Housing Act (Cal. Gov't. Code §§ 12900-12996). See *Widow v. City of Kansas City, Mo.*, 442 F.3d 661 (8th Cir. 2006) (holding that a jury is free to conclude that a City discriminated against female firefighters on the basis of sex under Title VII by requiring men and women in this male-dominated workplace to share the men's restroom).

<sup>2</sup> CA Labor Code § 1031; 29 U.S.C.A. § 207(r)(1)(B).

### **Establish a Women's Advisory's Group & Mentorship Program**

We appreciate OCFA-sponsored mentorship in Women in Fire. To provide on-going support for women in OCFA, it would be beneficial to have a Women's Advisory Group that is independent of Fire Authority control, **and to which Fire Authority leadership** actively encourages and supports firefighters to join, so there is not fear of retaliation for participating. This is the model in place in Los Angeles, which has the Los Angeles Women's Fire Service that is wholly outside of any chain of command and runs independently as an advocacy group.

### **Transparent, Fair, Objective Criteria for Assignments and Promotions**

When promotions or assignments are not advertised to all and not selected based on transparent, fair and objective criteria, bias can enter into decision making.<sup>3</sup> For example, the recent live fire cadre was not advertised to all sworn members. In Los Angeles City Fire Department, for example, they ensure that all job and special assignment opportunities are advertised to all staff, so everyone has an equal opportunity to apply. Los Angeles has a panel of three staff that evaluate applicants, and they try to ensure that the panel includes gender diversity.

### **Consistent, public acknowledgements by leadership at the Fire Authority on the value of a diverse workforce.**

We are troubled by reports that Lauren Andrade is facing isolation and marginalization for speaking up about the need for more fair treatment for women at OCFA. It is vital that OCFA fire fighters hear consistent, explicit messaging about the value of a diverse workforce, and how diversity helps OCFA to provide better service.<sup>4</sup> As noted in the *National Report Card on Women in Firefighting*, a key strategy for culture change is:

...commitment by top leadership -- mayors, chiefs and other senior appointed or elected officials. These leaders must be visible in announcing the goal of expanded female employment, the reasons for it, and their expectation that

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<sup>3</sup> See S.J. Correll, SWS 2016 Feminist Lecture: Reducing Gender Biases In Modern Workplaces: A Small Wins Approach to Organizational Change. *Gender & Society*, 31(6), 725–750 (2017) at <https://doi.org/10.1177/0891243217738518>. (“[W]hen individuals lack clear criteria about how to evaluate individuals or when performance information is minimal or ambiguous, gender stereotypes fill in the gaps in knowledge, leading decision makers to rate men and women differently.”)

<sup>4</sup> See Kristine St.-Pierre, “How leaders can advance gender equality and enhance gender sensitivity,” *impactpool.org* (2017) at <https://blog.impactpool.org/articles/5-tips-how-leaders-can-advance-gender-equality>.

those reporting to them will join the effort. They must send this message persistently and insistently, in actions as well as words.<sup>5</sup>

An example of this kind of public messaging on the value of women in traditionally male-dominated fields can be found in this message from Joint Chiefs of Staff Chairman General Martin Dempsey:

As our sacred responsibility, we are committed to improving the readiness of the force while also increasing opportunities for our women in uniform. These two goals are complementary, not contradictory.

When in contact with the enemy, the individual soldier, sailor, airman, or Marine doesn't consider whether their comrade in arms is a man or woman. They care about whether they can do their job. There is a simple explanation for this: trust transcends gender.

The service of our women and men in uniform is worthy of recognition today and every day.<sup>6</sup>

OCFA leadership should provide messaging on the value of a diverse work force through written communications to all staff, podcasts, videos, and social media, to name just a few possibilities.

### **Adopt a recruitment plan to attract women to the OCFA & Track Diversity**

We appreciate the inclusion of a Diversity and Inclusion Coordinator in the budget. In speaking with members of other fire departments on their diversity efforts, we learned that ideally there would be more than one recruitment officer, and that it works best if there is a combination of civilian officers and sworn officers. Civilian officers may be able to remain in the position for longer periods of time and ensure consistency, but may not fully grasp the complexities of the work and the issues firefighters face. Sworn fire fighters can provide the insight from actually experiencing the job requirements.

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<sup>5</sup> Denise Hulett, Marc Bendick, Jr., Sheila Y. Thomas, & Francine Moccio, *A National Report Card on Women in Firefighting* (2008), p. 12, available at <https://www.womeninfire.org/wp-content/uploads/2014/07/35827WSP.pdf>. See also Rand Corporation, *An Assessment of Options for Increasing Gender Integration in Air Force Basic Military Training* (2018) p. 82, at [https://www.rand.org/pubs/research\\_reports/RR1795.html](https://www.rand.org/pubs/research_reports/RR1795.html).

<sup>6</sup> Gen. Martin Dempsey, Jan. 28, 2014, at <https://www.defenseone.com/ideas/2014/01/dempseys-message-women-combat-trust-transcends-gender/77690/>.

## **Fair Manipulative Testing**

It is crucial for maintaining female recruits that any OCFA tests accurately measure the skills that are actually needed to serve as an OCFA fire fighter, and not unnecessarily screen out women disproportionately. Fire fighter tests that are not related to job requirements and disproportionately screen out women have been found to violate Title VII.<sup>7</sup> Any audit of manipulative testing must accurately measure the events in the sequence in which they would be performed by test takers, and not assesses one event at a time, which artificially makes the events appear easier than they would if assessed as they actually are given.

## **Require Implicit Bias training for all staff at the OCFA**

We appreciate your immediate retention of Jona Olsson to train OCFA staff and hope her training is offered to all staff, after the initial training of Chief Officers and Company Officers.

In summary, we would appreciate more information on the following:

1. A list of all OCFA fire stations that currently do not have separate shower facilities for men and women;
2. A more detailed description of what kind of gender accessible bathrooms are being contemplated at the 13 stations listed in the budget (i.e. single user, separate for men and women; modular, etc.);
3. Whether fire stations that are having renovations other than showers or are being entirely renovated or replaced will have separate showers for men and women;
4. The plans for accommodating lactating people;
5. The plans for establishing a Women's Advisory Board and Mentorship Program;
6. The plans for establishing transparent and objective criteria for assignments and promotions;
7. Whether the manipulative tests are being validated in a manner that accurately reflects how they will be taken;
8. A plan for consistent messaging from leadership on the value of a diverse workforce.

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<sup>7</sup> See *Berkman v. City of New York*, 536 F. Supp. 177, 206 (E.D.N.Y. 1982), aff'd, 705 F.2d 584 (2d Cir. 1983).

We would like to set up a time to have another meeting or a conference call to follow up on the issues we have identified in this letter. We look forward to working together towards more fair, equitable, and welcoming work environment for women in the OCFA.

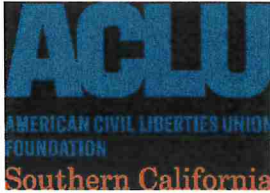
Sincerely,



Minouche Kandel  
Senior Staff Attorney



Aditi Fruitwala  
Staff Attorney



## **Meeting on Orange County Fire Authority Inclusive Environment**

August 1, 2019

1:00 pm - 2:30 pm

OCFA Regional Fire Operations & Training Center  
1 Fire Authority Road, Irvine, CA

- I. Bathrooms for All Genders
  - A. Review list of bathroom accommodations at all OCFA fire stations
  - B. Provide information on what kind of gender accessible bathrooms are being contemplated at the 10 stations listed in the budget - 13, 14, 16, 32, 35, 44, 70, 72, 73 and 78 (i.e. single user, separate for men and women; modular, etc.)
  - C. Bathroom plans for fire stations being remodeled or new construction (9, 10, 12, 18, 25, 26, and 52)
  - D. Timeline for full compliance
- II. Plan for consistent messaging from leadership on the value of a diverse workforce
- III. Lactation Accommodation Plans
- IV. Fairness of manipulative tests
- V. Establishing transparent and objective criteria for assignments and promotions
- VI. Plans for establishing a Women's Advisory Board and Mentorship Program

### **Meeting participants:**

Chief Brian Fennessy, Orange County Fire Authority  
Aditi Fruitwala, Staff Attorney, ACLU Foundation of Southern California  
Tia Grasso, Human Resources Manager, Orange County Fire Authority  
Minouche Kandel, Senior Staff Attorney, ACLU Foundation of Southern California  
Zoë Lillian, Legal Intern, ACLU Foundation of Southern California  
Rebecca Ninburg, City of Los Angeles Fire Commission  
Barbara Rialeanu, Esq., Woodruff, Spradlin & Smart  
Jim Ruane, Assistant Chief/Logistics, Orange County Fire Authority  
Colleen Windsor, Communications Director, Orange County Fire Authority  
Lori Zeller, Assistant Chief, Orange County Fire Authority



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Brian Fennessy, Fire Chief

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August 5, 2019

Minouche Kandel  
Aditi Fruitwala  
ACLU of Southern California  
1313 W 8th Street, Suite 200  
Los Angeles, CA 90017

***Re: August 1, 2019 Meeting Summary and OCFA Action Plan***

Dear Ms. Kandel and Ms. Fruitwala:

On behalf of the Orange County Fire Authority ("OCFA"), I wish to thank you for making the time to meet with us on August 1, 2019 to discuss your ideas on gender inclusivity in the fire service. We are very interested in maintaining a dialogue on this subject and continuing to collaborate with the ACLU and Captain Lauren Andrade on improving the work environment for female firefighters at the OCFA. To that end, we will certainly continue to provide periodic updates about progress on the items we discussed.

During our meeting on August 1, 2019, we discussed and addressed the following topics.

1. **Fire station restroom and shower facilities.** In general, we believe that OCFA's 80 fire stations are compliant with the specific California regulations regarding shower and restroom facilities (8 CCR section 3366(f)(1)). However, as discussed during the meeting, simply meeting the minimum standard is not OCFA's goal. Instead, our goal is to go beyond the minimum threshold and make separate facilities available at equally convenient locations for male and female firefighters.
  - a. Goal: Over the next 3-5 years, renovate all 19 of the facilities that currently do not have separate facilities. In addition, over the next ten years, improve the restroom and shower facilities at those of the 61 stations which already have separate facilities, but which will benefit from changes to improve our gender-inclusive environment.
  - b. Short-term solution: Retain one individual from OCFA's field operations within the next 3-4 months to serve in a staff assignment capacity and partner with Property Management. This "project team" will walk the fire stations in order to develop suggestions and options (both short-term and long-term fixes) to improve the restroom and shower facilities at the stations. This temporary assignment will be for approximately 3-6 months.

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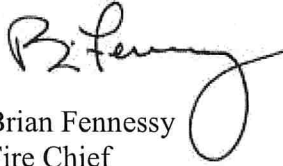
- c. Impediments to renovating the facilities sooner: 10 of the 19 facilities needing separate restroom facilities for men and women are City (not OCFA)-owned and will require City agreement for renovations. Many cities face financial obstacles and may not have the funding to create separate facilities. Some short-term and less costly solutions may have to be explored in the interim. We hope to do so with the assistance of a field operations employee.
2. **Lactation accommodations:** The field operations employee retained for a short-term staff assignment, as noted above, will also partner with Human Resources to survey other Fire Departments for sample policies, best practices, and to draft a policy for OCFA. In the interim, employees are informed on a case-by-case basis that if they need lactation accommodations, HR staff will work with them to provide those.
3. **Women's (and other racial / ethnic) advisory board and mentorship program:** You will provide sample program charter documents from other agencies that already have these types of programs in place, for more guidance on facilitating or supporting the formation of such programs at OCFA. In concept, the OCFA supports implementation of such programs.
4. **Validation of manipulative skills test:** Additional validation is currently being conducted by an independent firm, and consistent oversight of test administration will continue, with that oversight being provided by the Assistant Chief of Field Operations. OCFA will also vet the testing through existing firefighters of various age, experience, and gender prior to each testing cycle.
5. **Fire Chief messaging:** Many general ideas were discussed surrounding the message that should be conveyed by the Chief in order to cultivate an environment of acceptance and welcoming of female firefighters. The Chief is very much on board with using speaking opportunities and consistently communicating with various groups about the importance and benefits of diversity (racial, gender based, etc.). We agree that discussing the messages conveyed with each of the groups that may be affected prior to delivering the message is of value. While we are on the same page regarding the goal, what we did not receive from you were more concrete examples that other organizations have used effectively to convey this message. We would welcome more specific information on this topic and messages from other organizations that you have found beneficial (in addition to the one sample that was provided during our meeting).

Your participation in this process has been helpful and has led to some meaningful discussions for which we are appreciative. The items discussed are the same as the gender-inclusive projects that OCFA was already pursuing before we began our dialogue; therefore, you have our firm commitment that we will continue moving forward with these items. In addition, we will let you know when significant milestones have been met. However, we do not believe that your role is one of oversight of our organization and meeting at overly frequent intervals will not help us

accomplish our mutual goals any faster. We are willing to meet on one more occasion, as we discussed, to be scheduled for a date approximately six months from now (early February 2020). Deputy Chief Zeller will be in touch to schedule that meeting.

In sum, over the next six months (and hopefully prior to that meeting), our goal is to hire someone from operations to help us evaluate and make recommendations regarding short and long term fixes at the fire stations, draft a policy for lactation accommodations, put together a plan to demonstrate support of a women's advisory board, deliver at least one message of acceptance and diversity, and complete the validation of the manipulative skills test. If you would like reasonable updates on our progress, please email us. Additionally, we welcome any specific and concrete examples of ways in which OCFA can further improve working conditions and the environment for women.

Sincerely,



Brian Fennessy  
Fire Chief

cc: Lori Zeller, Deputy Chief  
Administration & Support Bureau

Tia Grasso  
Human Resources Manager

Barbara Raileanu  
Woodruff, Spradlin & Smart

Lauren Andrade  
Fire Captain



# ORANGE COUNTY FIRE AUTHORITY

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Brian Fennessy, Fire Chief

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November 5, 2019

Minouche Kandel  
Aditi Fruitwala  
ACLU of Southern California  
1313 W 8th Street, Suite 200  
Los Angeles, CA 90017

***Re: Progress Update to OCFA Action Plan dated August 5, 2019***

Dear Ms. Kandel and Ms. Fruitwala:

On behalf of the Orange County Fire Authority ("OCFA"), I am pleased to provide this update to the OCFA Action Plan that we shared with you following our meeting of August 1, 2019 relating to gender inclusivity in the fire service.

Below are the topics we discussed on August 1, 2019, and the action plans that we summarized for you in our follow-up correspondence dated August 5, 2019. In addition, we've added progress updates for each topic.

1. **Fire station restroom and shower facilities.** In general, we believe that OCFA's 80 fire stations are compliant with the specific California regulations regarding shower and restroom facilities (8 CCR section 3366(f)(1)). However, as discussed during the meeting, simply meeting the minimum standard is not OCFA's goal. Instead, our goal is to go beyond the minimum threshold and make separate facilities available at equally convenient locations for male and female firefighters.
  - a. Goal: Over the next 3-5 years, renovate all 19 of the facilities that currently do not have separate facilities. In addition, over the next ten years, improve the restroom and shower facilities at those of the 61 stations which already have separate facilities, but which will benefit from changes to improve our gender-inclusive environment.
  - b. Short-term solution: Retain one individual from OCFA's field operations within the next 3-4 months to serve in a staff assignment capacity and partner with Property Management. This "project team" will walk the fire stations in order to develop suggestions and options (both short-term and long-term fixes) to improve the restroom and shower facilities at the stations. This temporary assignment will be for approximately 3-6 months.

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- c. Impediments to renovating the facilities sooner: 10 of the 19 facilities needing separate restroom facilities for men and women are City (not OCFA)-owned and will require City agreement for renovations. Many cities face financial obstacles and may not have the funding to create separate facilities. Some short-term and less costly solutions may have to be explored in the interim. We hope to do so with the assistance of a field operations employee.

**Progress Update**

- A meeting was held on September 10 with the Local 3631 for support of the short-term staff assignment to assist property management in refining details of restroom/shower facility modifications. We anticipate recruiting for this position in December, with the assignment to begin in January.
  - A City Manager Technical Advisory Committee meeting was held on October 10, with all OCFA City Managers invited, for discussion of the above project goals to raise awareness and build a foundation for necessary financial support.
  - The Fire Station 13 remodel project has completed the design phase and the plans are now with the City of La Palma for plan-review and approval.
  - Contracts were issued during the month of August to project management/architect firms who are being assigned to work on fire station restroom and shower facility projects.
2. **Lactation accommodations:** The field operations employee retained for a short-term staff assignment, as noted above, will also partner with Human Resources to survey other Fire Departments for sample policies, best practices, and to draft a policy for OCFA. In the interim, employees are informed on a case-by-case basis that if they need lactation accommodations, HR staff will work with them to provide those.

**Progress Update**

- Under the leadership of OCFA's new Assistant Chief/Human Resources (Nina Collins), staff has begun drafting an OCFA policy regarding lactation accommodations, and we anticipate finalizing this policy for issuance in the next quarter.
3. **Women's (and other racial / ethnic) advisory board and mentorship program:** You will provide sample program charter documents from other agencies that already have these types of programs in place, for more guidance on facilitating or supporting the formation of such programs at OCFA. In concept, the OCFA supports implementation of such programs.

**Progress Update**

- We appreciate that your October 17<sup>th</sup> email included bylaws from the Los Angeles Women in the Fire Service and the San Diego Women's Committee's mission statement. OCFA remains supportive of the implementation of such programs.
4. **Validation of manipulative skills test:** Additional validation is currently being conducted by an independent firm, and consistent oversight of test administration will continue, with that oversight being provided by the Assistant Chief of Field Operations. OCFA will also vet the testing through existing firefighters of various age, experience, and gender prior to each testing cycle.

**Progress Update**

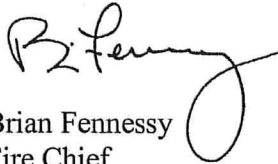
- Attached is a summary of the independent validation that has occurred to date (Attachment 1).
  - The next phase of the validation process, using an independent expert, will address the development of an "exertion scale" used to consistently apply the validated tests during the six-month and twelve-month skills test.
  - Although we discussed potentially sharing the actual validation reports provided to OCFA by FPSI, the independent validation firm, we concluded that those reports must remain confidential due to the content which discloses detailed testing processes. Testing information is exempt from disclosure under Government Code Section 6254(g). This is consistent with our responses to others who have previously requested reports covering various elements of OCFA's recruitment and testing processes.
5. **Fire Chief messaging:** Many general ideas were discussed surrounding the message that should be conveyed by the Chief in order to cultivate an environment of acceptance and welcoming of female firefighters. The Chief is very much on board with using speaking opportunities and consistently communicating with various groups about the importance and benefits of diversity (racial, gender based, etc.). We agree that discussing the messages conveyed with each of the groups that may be affected prior to delivering the message is of value. While we are on the same page regarding the goal, what we did not receive from you were more concrete examples that other organizations have used effectively to convey this message. We would welcome more specific information on this topic and messages from other organizations that you have found beneficial (in addition to the one sample that was provided during our meeting).

**Progress Update**

- On October 1, we released the 2019 refreshed version of *The OCFA Way*, which lays an outstanding foundation for further messaging and cultivating an environment of respect (Attachment 2).
- On October 8, a discussion was held with the Executive Leadership Team regarding upcoming training to be delivered by Jona Olsson titled “United in Service – Leadership for Building an Inclusive, Diverse, Healthy and Resilient Emergency Service.” The training is scheduled first for all Chief Officers on December 2 and 3. Additional training days will then be scheduled for all Company Officers to attend (dates yet to be determined, but targeted for delivery in January and February).
- On October 30, a memo was distributed to all personnel announcing the above training, and advising that the course is mandatory for all members of Executive Management and Chief Officers (Attachment 3).
- Also on October 30, Chief Fennessy issued a message to all personnel announcing the issuance of a new Standard Operating Procedure HR.02.11 “Anti-Bullying and Hazing” (Attachment 4), and addressing additional details relating to the Chief’s expectations for conduct by all personnel.
- The new Diversity Recruitment Officer position that was approved in the FY 2019/20 budget by the Board of Directors was funded to begin in January 2020. With our new HR Director having just started one month ago, we will now begin working on the class specification for this new position. Once the class specification is developed, it will require approval by the OCFA’s Board of Directors, prior to launching the open recruitment.

We remain committed to moving forward with these items, and equally committed to our overall goals to collaborate with the ACLU and Captain Lauren Andrade on improving the work environment for female firefighters at the OCFA.

Sincerely,



Brian Fennessy  
Fire Chief

Attachments:

1. Summary of Independent Validation Process
2. *The OCFA Way*, Refreshed in 2019
3. Training Announcement – “United in Service – Leadership for Building an Inclusive, Diverse, Healthy and Resilient Emergency Service”
4. Chief’s Message – Anti-Bullying and Hazing SOP

cc: Lori Zeller, Deputy Chief, Administration & Support Bureau  
Nina Collins, Assistant Chief/Human Resources Director  
Barbara Raileanu, Woodruff, Spradlin & Smart  
Lauren Andrade, Fire Captain

**Meeting on Orange County Fire Authority Inclusive Environment**

February 10, 2020

3:00 pm - 4:00 pm

OCFA Regional Fire Operations & Training Center  
1 Fire Authority Road, Irvine, CA

- I. Bathrooms for All Genders
  - A. Inclusive Facilities Coordinator Update
  - B. Provide information on what kind of gender accessible bathrooms are being contemplated at the 10 stations listed in the budget - 13, 14, 16, 32, 35, 44, 70, 72, 73 and 78 (i.e. single user, separate for men and women; modular, etc.)
  - C. Bathroom plans for fire stations being remodeled or new construction (9, 10, 12, 18, 25, 26, and 52)
  - D. Timeline for full compliance
  - E. Use of Captain's Bathrooms?
- II. Plan for consistent messaging from leadership on the value of a diverse workforce
- III. Lactation Accommodation Plans
- IV. Fairness of Manipulative Tests
- V. Diversity in Instructor Staff
- VI. Plans for establishing a Women's Advisory Board and Mentorship Program

**Meeting participants:**

Lauren Andrade, Captain, Orange County Fire Authority  
Nina Collins, Orange County Fire Authority  
Chief Brian Fennessy, Orange County Fire Authority  
Aditi Fruitwala, Staff Attorney, ACLU Foundation of Southern California  
Minouche Kandel, Senior Staff Attorney, ACLU Foundation of Southern California  
Taylor Marvulli, Legal Intern, ACLU Foundation of Southern California  
Barbara Rialeanu, Esq., Woodruff, Spradlin & Smart  
Jim Ruane, Assistant Chief/Logistics, Orange County Fire Authority  
Colleen Windsor, Communications Director, Orange County Fire Authority  
Lori Zeller, Assistant Chief, Orange County Fire Authority



# ORANGE COUNTY FIRE AUTHORITY

P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602

Brian Fennessy, Fire Chief

(714) 573-6000

[www.ocfa.org](http://www.ocfa.org)

February 10, 2020

Minouche Kandel  
Aditi Fruitwala  
ACLU of Southern California  
1313 W 8th Street, Suite 200  
Los Angeles, CA 90017

***Re: Six-Month Progress Update to OCFA Action Plan dated August 5, 2019***

Dear Ms. Kandel and Ms. Fruitwala:

On behalf of the Orange County Fire Authority ("OCFA"), I am pleased to provide this second update, reflecting our progress as of a six-month milestone, to the OCFA Action Plan that we shared with you following our meeting of August 1, 2019 relating to gender inclusivity in the fire service.

Below are the action plans that we summarized in our August 5, 2019 correspondence to you, our three-month progress updates shared with you in November 2019, and our six-month updates as of February 2020 for each topic.

1. **Fire station restroom and shower facilities.** In general, we believe that OCFA's 80 fire stations are compliant with the specific California regulations regarding shower and restroom facilities (8 CCR section 3366(f)(1)). However, as discussed during the meeting, simply meeting the minimum standard is not OCFA's goal. Instead, our goal is to go beyond the minimum threshold and make separate facilities available at equally convenient locations for male and female firefighters.
  - a. Goal: Over the next 3-5 years, renovate all 19 of the facilities that currently do not have separate facilities. In addition, over the next ten years, improve the restroom and shower facilities at those of the 61 stations which already have separate facilities, but which will benefit from changes to improve our gender-inclusive environment.
  - b. Short-term solution: Retain one individual from OCFA's field operations within the next 3-4 months to serve in a staff assignment capacity and partner with Property Management. This "project team" will walk the fire stations in order to develop suggestions and options (both short-term and long-term fixes) to improve the restroom and shower facilities at the stations. This temporary assignment will be for approximately 3-6 months.

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La Palma • Los Alamitos • Mission Viejo • Placentia • Rancho Santa Margarita • San Clemente • San Juan Capistrano • Santa Ana • Seal Beach • Stanton  
Tustin • Villa Park • Westminster • Yorba Linda • and Unincorporated Areas of Orange County

**RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES**

- c. Impediments to renovating the facilities sooner: 10 of the 19 facilities needing separate restroom facilities for men and women are City-owned (not OCFA-owned) and will require City agreement for renovations. Many cities face financial obstacles and may not have the funding to create separate facilities. Some short-term and less costly solutions may have to be explored in the interim. We hope to do so with the assistance of a field operations employee.

**Three-Month Progress Update**

- A meeting was held on September 10 with the Local 3631 for support of the short-term staff assignment to assist property management in refining details of restroom/shower facility modifications. We anticipate recruiting for this position in December, with the assignment to begin in January.
- A City Manager Technical Advisory Committee meeting was held on October 10, with all OCFA City Managers invited, for discussion of the above project goals to raise awareness and build a foundation for necessary financial support.
- The Fire Station 13 remodel project has completed the design phase and the plans are now with the City of La Palma for plan-review and approval.
- Contracts were issued during the month of August to project management/architect firms who are being assigned to work on fire station restroom and shower facility projects.

**Six-Month Progress Update**

- On January 8, 2020, the OCFA's Budget and Finance Committee approved a Mid-Year Budget Review which included staff's recommendation to transfer \$5.5M in surplus workers' compensation funding to the Capital Improvement Program specifically dedicated for use in making OCFA facilities more inclusive (including gender accommodations to restroom facilities). This item was subsequently approved by the Board of Directors at the January 23, 2020 meeting and staff was directed to include this transfer in the technical budget adjustments that will be approved by the Board in March.
- On January 16, 2020, an internal recruitment was opened inviting applications from field operations personnel to fill the temporary position of "Inclusive Facilities Coordinator – Staff Assignment." The recruitment closed on January 30 and interviews were completed on February 4. Fire Captain Lauren Andrade has been selected to fill the special assignment position. We have agreed to accommodate Captain Andrade's request to finish leading her probationary firefighter through the end of probation in May; therefore, her transition to this staff assignment will be completed in May, with potential for her to perform advance planning work (on overtime) in the interim until May.
- Job walks were performed at Fire Stations 14 and 16 (Silverado Canyon) along with Fire Stations 32 and 53 (Yorba Linda) with a Project Manager from Griffin Structures to

develop a scope of repairs (including bathrooms) needed to include in the Construction Request for Proposals (RFP's) for these stations. On January 23, 2020, the OCFA's Executive Committee approved a contract award to Griffin Structures in the amount of \$285,000 over three years, as the Project Manager for these four stations to ensure the construction services are in accordance with the project plan and specifications. Additionally, the Executive Committee approved \$465,000 in the contract award to Griffin Structures, over three years, for additional OCFA fire station facility studies.

- The Plans for renovation of Fire Station 13 (La Palma) have been returned from the city plan-check process with required corrections. We have assigned Griffin Structures as the Project Manager to oversee and expedite this project.
  - A job walk has been completed at Fire Station 41 (Fullerton) for dorm and bathroom upgrades. Staff will request additional funding for a Project Manager for this project at the March Executive Committee meeting.
2. **Lactation accommodations:** The field operations employee retained for a short-term staff assignment, as noted above, will also partner with Human Resources to survey other Fire Departments for sample policies, best practices, and to draft a policy for OCFA. In the interim, employees are informed on a case-by-case basis that if they need lactation accommodations, HR staff will work with them to provide those.

**Three-Month Progress Update**

- Under the leadership of OCFA's new Assistant Chief/Human Resources (Nina Collins), staff began drafting an OCFA policy regarding lactation accommodations.

**Six-Month Progress Update**

- On February 3, 2020, two new Human Resources Analysts were hired into the Employee Relations Section of the Human Resources Department. Having dedicated resources hired into this unit for the first time following a full-year of vacancies, we have now assigned completion of the policy regarding lactation accommodations to our new personnel. We anticipate teaming up the HR Analyst with the Inclusive Facility Coordinator for policy input regarding lactation needs in station facilities.
3. **Women's (and other racial / ethnic) advisory board and mentorship program:** You will provide sample program charter documents from other agencies that already have these types of programs in place, for more guidance on facilitating or supporting the formation of such programs at OCFA. In concept, the OCFA supports implementation of such programs.

**Three-Month Progress Update**

- We appreciate that your October 17<sup>th</sup> email included bylaws from the Los Angeles Women in the Fire Service and the San Diego Women's Committee's mission statement. OCFA remains supportive of the implementation of such programs.

**Six-Month Progress Update**

- OCFA remains supportive of the implantation of such programs.
4. **Validation of manipulative skills test:** Additional validation is currently being conducted by an independent firm, and consistent oversight of test administration will continue, with that oversight being provided by the Deputy Chief, Emergency Operations Bureau. OCFA will also vet the testing through existing firefighters of various age, experience, and gender prior to each testing cycle.

**Three-Month Progress Update**

- A summary of the independent validation that had occurred to date was provided at the three-month update.
- The next phase of the validation process, using an independent expert, will address the development of an “exertion scale” used to consistently apply the validated tests during the six-month and twelve-month skills test.
- Although we discussed potentially sharing the actual validation reports provided to OCFA by Fire & Police Selection Incorporated’s (FPSI), the independent validation firm, we concluded that those reports must remain confidential due to the content which discloses detailed testing processes. Testing information is exempt from disclosure under Government Code Section 6254(g). This is consistent with our responses to others who have previously requested reports covering various elements of OCFA’s recruitment and testing processes.

**Six-Month Progress Update**

- OCFA has requested Fire & Police Selection Incorporated’s (FPSI) assistance, as an independent expert, in grouping validated manipulative skills in a manner that allows OCFA to administer Engine Company Operations and Truck Company Operations in a scenario-based manner which ensures the examinations are of similar difficulty and level of exertion. The scenario validation will provide consistency and fairness during the 6-month and 12-month examination process.
  - The scope of work and contract with FPSI will be finalized shortly. Once the project is started, it will take between four to six months to complete.
5. **Fire Chief messaging:** Many general ideas were discussed surrounding the message that should be conveyed by the Chief in order to cultivate an environment of acceptance and welcoming of female firefighters. The Chief is very much on board with using speaking opportunities and consistently communicating with various groups about the importance and benefits of diversity (racial, gender based, etc.). We agree that discussing the messages conveyed with each of the groups that may be affected prior to delivering the message is of

value. While we are on the same page regarding the goal, what we did not receive from you were more concrete examples that other organizations have used effectively to convey this message. We would welcome more specific information on this topic and messages from other organizations that you have found beneficial (in addition to the one sample that was provided during our meeting).

**Three-Month Progress Update**

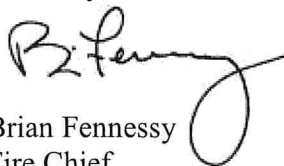
- On October 1, 2019, we released the 2019 refreshed version of *The OCFA Way*, which lays an outstanding foundation for further messaging and cultivating an environment of respect.
- On October 8, 2019, a discussion was held with the Executive Leadership Team regarding training to be delivered by Jona Olsson titled “United in Service – Leadership for Building an Inclusive, Diverse, Healthy and Resilient Emergency Service.”
- On October 30, 2019, Chief Fennessy issued a message to all personnel announcing the issuance of a new Standard Operating Procedure HR.02.11 “Anti-Bullying and Hazing” (Attachment 4), and addressing additional details relating to the Chief’s expectations for conduct by all personnel.
- The new Diversity Recruitment Officer position that was approved in the FY 2019/20 budget by the Board of Directors was funded to begin in January 2020. With our new HR Director having just started one month ago, we will now begin working on the class specification for this new position. Once the class specification is developed, it will require approval by the OCFA’s Board of Directors, prior to launching the open recruitment.

**Six-Month Progress Update**

- On December 2 and 3, 2019, training was delivered to all members of Executive Management and all Chief Officers by Jona Olsson titled “United in Service – Leadership for Building an Inclusive, Diverse, Healthy and Resilient Emergency Service.”

We believe our steady progress and continuous actions are positive demonstrations of our commitment to improving the work environment for female firefighters at the OCFA.

Sincerely,



Brian Fennessy  
Fire Chief

cc: Lori Zeller, Deputy Chief, Administration & Support Bureau  
Nina Collins, Assistant Chief/Human Resources Director  
Barbara Raileanu, Woodruff, Spradlin & Smart  
Lauren Andrade, Fire Captain

**Zeller, Lori**

---

**From:** Minouche Kandel <MKandel@aclusocal.org>  
**Sent:** Monday, June 29, 2020 9:11 PM  
**To:** Fennessy, Brian  
**Cc:** Zeller, Lori; Grasso, Tia; Barbara Raileanu; Aditi Fruitwala; lauen andrade; Collins, Nina; Ruane, Jim; Windsor, Colleen  
**Subject:** checking in on gender equity initiatives

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Dear Chief Fennessy:

We are so thrilled that Lauren has started in her new position as the Inclusive Facilities auditor, and is getting support in that role. Thank you for this important work. We thought this would be a good opportunity to check in and get some updates on the issues we have been tracking. We would appreciate updates on the following:

**Test Validation**

We had discussed the validation of the testing components, to be sure that they are tested in the way they are actually administered, and that they test what is required for the job, but not more. Can you let us know the following as it pertains to the validation:

- How many people in the most recent academy started and how many graduated, with a breakdown by gender and race?
- We understand the 6-month test has changed recently to reflect the actual requirements of the job, but the 1-year test has not. Is there any plan to validate the 1-year test?

**Implicit Bias Training & HR Diversity/Inclusion Position**

- What is the status of any planned implicit bias training, and the status of the planned Diversity/Inclusion position in the H.R. Department?
- Are HR staff present during candidate interviews to ensure appropriate questioning of candidates?

**Professional Advancement Opportunities for Women**

- We understand that no women were placed on truck companies out of the recent academies. Can you let us know plans to ensure that all OCFA members have the same opportunities for professional advancement?

Thank you as always for our continued communication on how to make OCFA a more supportive environment for fire fighters of all genders.

*Minouche*

Minouche Kandel  
Senior Staff Attorney  
LGBTQ, Gender, & Reproductive Justice Project  
ACLU Foundation of Southern California  
1313 W. 8th Street  
Los Angeles, CA 90017  
213.977.5266

## Zeller, Lori

---

**From:** Fennessy, Brian  
**Sent:** Monday, July 13, 2020 4:14 PM  
**To:** Minouche Kandel  
**Cc:** Zeller, Lori; Barbara Raileanu; Aditi Fruitwala; lauen andrade; Ruane, Jim; Windsor, Colleen  
**Subject:** RE: checking in on gender equity initiatives

Hi Minouche:

We've inserted updates below (in red) for the topics that you requested. Please let us know if you have any questions.

### Test Validation

We had discussed the validation of the testing components, to be sure that they are tested in the way they are actually administered, and that they test what is required for the job, but not more. Can you let us know the following as it pertains to the validation:

**How many people in the most recent academy started and how many graduated, with a breakdown by gender and race?**

- 50 started (48 Male, 2 Female)
- 37 graduated (35 Male, 2 Female)
  - 3 Asian Male (3 passed)
  - 1 Black Male (1 Passed)
  - 2 Filipino Male (2 Passed)
  - 9 Hispanic Male (3 Passed, 6 Failed)
  - 5 NA Males (4 Passed, 1 Failed)
  - 28 White Males (22 Passed, 6 Failed)
  - 2 White Females (2 Passed)

**We understand the 6-month test has changed recently to reflect the actual requirements of the job, but the 1-year test has not. Is there any plan to validate the 1-year test?**

- Both the 6-month and 1-year tests are job-specific performance-based. No changes have been made for the last 5 academies. We are waiting for FPSI to help create and validate multiple new 6-month and 1-year tests with a panel of firefighters.

### Implicit Bias Training & HR Diversity/Inclusion Position

**What is the status of any planned implicit bias training, and the status of the planned Diversity/Inclusion position in the H.R. Department?**

- Training: Due to the COVID pandemic, all training has been cancelled since March with the exception of FF Academies, promotional academies, and a very small number of other mandatory classes. All have required modifications to allow for mitigation of risk in light of the pandemic. Broader training programs cannot be resumed until the conditions associated with mitigating COVID exposures are behind us.

- Diversity/Inclusion Position: This recruitment has not been launched yet. The HR Director was assessing the level of position and classification, which was necessary prior to recruiting. Staff is near completion with a tentative plan for the classification, which once finalized, will enable us to begin the recruitment.

**Are HR staff present during candidate interviews to ensure appropriate questioning of candidates?**

- HR staff provides a mandatory interview-rater training session that every rater must attend before conducting the interviews. HR staff does not sit in the actual interviews. This would not be feasible given the volume of candidates that go through our FF Trainee interview process. During the most recent FF Trainee interviews that we completed, the volume was as follows:
  - 6 weeks of interviews, Monday through Friday 8:00 am- 5:00 pm
  - 6 concurrent interview panels, each interview panel conducted interviews with 10 candidates per day
  - 60 candidates were interviewed per day
  - 300 candidates were interviewed per week
  - 1,802 total candidates were scheduled to interview

**Professional Advancement Opportunities for Women**

**We understand that no women were placed on truck companies out of the recent academies. Can you let us know plans to ensure that all OCFA members have the same opportunities for professional advancement?**

- Due to the limited number of available firefighter openings at the completion of Fire fighter academy 50, our newly graduating firefighters were placed in the current open positions to accommodate the placement of Academy 50.
- Truck companies with an open firefighter position have always been the priority to fill with new employees for increased training and experience. Currently, all firefighters train with truck companies within their battalions to ensure all firefighters are provided the opportunity to practice and maintain competency with truck company manipulative skills.
- With the increase of tiller trucks in the organization, one firefighter assigned to these trucks is required to be "tiller-certified" to work on that type of apparatus. All probationary and non-probationary firefighters can work on truck companies and/or work towards earning their tiller qualification.
- The Operations Training and Safety Section encourages probationary firefighters, at the discretion of their assigned fire captain, to become tiller-certified at the earliest convenience to help build depth in the tiller staffing and enhance the professional growth of all of our firefighters, including our female firefighters.
- The Operations Training and Safety Section works with our Division Chief responsible for staffing. When an identified need for additional tiller-qualified firefighters is identified, an open announcement soliciting interest to all firefighters in the organization is made. The training section then provides the training for our members.
- All OCFA firefighters are afforded the same professional growth opportunities. Per the Local 3631 MOU (representing our firefighters), members have bid rights and can bid available apparatus openings every 12 weeks. This opportunity is available for every firefighter who is interested in bidding to an open truck position.

Thank you as always for your support of OCFA and our ongoing efforts to provide a supportive environment for fire fighters of all genders and ethnicities.

Chief Fennessy



**Brian Fennessy**

Fire Chief  
Orange County Fire Authority  
714.573.6010 (Office)  
714.559.2700 (Mobile)  
[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)  
[www.ocfa.org](http://www.ocfa.org)

*In service of others!*

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---

**From:** Minouche Kandel <[MKandel@aclusocal.org](mailto:MKandel@aclusocal.org)>

**Sent:** Wednesday, July 1, 2020 9:59 AM

**To:** Fennessy, Brian <[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)>

**Cc:** Zeller, Lori <[LoriZeller@ocfa.org](mailto:LoriZeller@ocfa.org)>; Barbara Raileanu <[braileanu@wss-law.com](mailto:braileanu@wss-law.com)>; Aditi Fruitwala <[AFruitwala@aclusocal.org](mailto:AFruitwala@aclusocal.org)>; lauen andrade <[landrade4411@yahoo.com](mailto:landrade4411@yahoo.com)>; Collins, Nina <[NinaCollins@ocfa.org](mailto:NinaCollins@ocfa.org)>; Ruane, Jim <[JimRuane@ocfa.org](mailto:JimRuane@ocfa.org)>; Windsor, Colleen <[ColleenWindsor@ocfa.org](mailto:ColleenWindsor@ocfa.org)>

**Subject:** RE: checking in on gender equity initiatives

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Dear Chief Fennessy:

Thank you for your prompt response. Hope you all have a safe and happy holiday weekend.

*Minouche*

Minouche Kandel  
Senior Staff Attorney  
LGBTQ, Gender, & Reproductive Justice Project  
ACLU Foundation of Southern California  
1313 W. 8th Street  
Los Angeles, CA 90017  
213.977.5266  
[mkandel@aclusocal.org](mailto:mkandel@aclusocal.org)  
Pronouns: she/her/hers

---

**From:** Fennessy, Brian <[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)>

**Sent:** Tuesday, June 30, 2020 8:29 PM

**To:** Minouche Kandel <[MKandel@aclusocal.org](mailto:MKandel@aclusocal.org)>

Cc: Zeller, Lori <[LoriZeller@ocfa.org](mailto:LoriZeller@ocfa.org)>; Barbara Raileanu <[braileanu@wss-law.com](mailto:braileanu@wss-law.com)>; Aditi Fruitwala <[AFruitwala@aclusocal.org](mailto:AFruitwala@aclusocal.org)>; lauen andrade <[landrade4411@yahoo.com](mailto:landrade4411@yahoo.com)>; Collins, Nina <[NinaCollins@ocfa.org](mailto:NinaCollins@ocfa.org)>; Ruane, Jim <[JimRuane@ocfa.org](mailto:JimRuane@ocfa.org)>; Windsor, Colleen <[ColleenWindsor@ocfa.org](mailto:ColleenWindsor@ocfa.org)>  
**Subject:** RE: checking in on gender equity initiatives

Hi Minouche:

Always great to hear from you!

We were pleased to have been able to secure Board of Director funding support for having Lauren fill this important need for OCFA. We will gather the information you inquire about below and will get back to you with our responses.

Have a great holiday weekend.

Chief Fennessy



**Brian Fennessy**

Fire Chief  
Orange County Fire Authority  
714.573.6010 (Office)  
714.559.2700 (Mobile)  
[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)  
[www.ocfa.org](http://www.ocfa.org)

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---

**From:** Minouche Kandel [<mailto:MKandel@aclusocal.org>]

**Sent:** Monday, June 29, 2020 21:11

**To:** Fennessy, Brian <[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)>

**Cc:** Zeller, Lori <[LoriZeller@ocfa.org](mailto:LoriZeller@ocfa.org)>; Grasso, Tia <[TiaGrasso@ocfa.org](mailto:TiaGrasso@ocfa.org)>; Barbara Raileanu <[braileanu@wss-law.com](mailto:braileanu@wss-law.com)>; Aditi Fruitwala <[AFruitwala@aclusocal.org](mailto:AFruitwala@aclusocal.org)>; lauen andrade <[landrade4411@yahoo.com](mailto:landrade4411@yahoo.com)>; Collins, Nina <[NinaCollins@ocfa.org](mailto:NinaCollins@ocfa.org)>; Ruane, Jim <[JimRuane@ocfa.org](mailto:JimRuane@ocfa.org)>; Windsor, Colleen <[ColleenWindsor@ocfa.org](mailto:ColleenWindsor@ocfa.org)>

**Subject:** checking in on gender equity initiatives

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Dear Chief Fennessy:

We are so thrilled that Lauren has started in her new position as the Inclusive Facilities auditor, and is getting support in that role. Thank you for this important work. We thought this would be a good opportunity to check in and get some updates on the issues we have been tracking. We would appreciate updates on the following:

**Test Validation**

We had discussed the validation of the testing components, to be sure that they are tested in the way they are actually administered, and that they test what is required for the job, but not more. Can you let us know the following as it pertains to the validation:

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**Implicit Bias Training & HR Diversity/Inclusion Position**

- What is the status of any planned implicit bias training, and the status of the planned Diversity/Inclusion position in the H.R. Department?
- Are HR staff present during candidate interviews to ensure appropriate questioning of candidates?

**Professional Advancement Opportunities for Women**

- We understand that no women were placed on truck companies out of the recent academies. Can you let us know plans to ensure that all OCFA members have the same opportunities for professional advancement?

Thank you as always for our continued communication on how to make OCFA a more supportive environment for fire fighters of all genders.

*Minouche*

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Senior Staff Attorney  
LGBTQ, Gender, & Reproductive Justice Project  
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213.977.5266  
[mkandel@aclusocal.org](mailto:mkandel@aclusocal.org)  
Pronouns: she/her/hers

**Zeller, Lori**

---

**From:** Minouche Kandel <MKandel@aclusocal.org>  
**Sent:** Monday, September 14, 2020 8:27 PM  
**To:** Fennessy, Brian  
**Cc:** Zeller, Lori; braileanu@wss-law.com; Ruane, Jim; Windsor, Colleen; Aditi Fruitwala; landrade4411@yahoo.com  
**Subject:** checking in on gender equity initiatives

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Dear Chief Fennessy:

Thank you so much for providing us with the data below. The extremely low percentage rates of women and people of color starting in the academy is concerning, and looks like it might need an intervention further up-stream. Could you provide the demographic data of the applicant pool, and then the demographics of each group that progressed to the next level (i.e. the group that passed the written test; the group that passed the Captain's interview; the group that passed the Chief's interview; etc.) so we can see if there are particular points which have a disparate impact on certain groups?

Anecdotally, we understand that the Captain's interview may allow for more subjective evaluation, and the possibility of bias, explicit or implicit, to creep in. Are you taking any steps to ensure some consistency across these interviews, and guidelines for questions to ask and to score applicant responses?

We were thrilled to hear from Capt. Andrade that the survey of facilities is complete and that work is starting to bring the stations that are not compliant into compliance.

We hope you and your team are surviving this extraordinarily busy fire season.

Sincerely,

*Minouche*

Minouche Kandel  
Senior Staff Attorney  
LGBTQ, Gender, & Reproductive Justice Project  
ACLU Foundation of Southern California  
1313 W. 8th Street  
Los Angeles, CA 90017  
213.977.5266  
[mkandel@aclusocal.org](mailto:mkandel@aclusocal.org)  
Pronouns: she/her/hers

**Zeller, Lori**

---

**From:** Fennessy, Brian  
**Sent:** Wednesday, September 23, 2020 9:12 PM  
**To:** Minouche Kandel  
**Cc:** Zeller, Lori; braileanu@wss-law.com; Ruane, Jim; Windsor, Colleen; Aditi Fruitwala; landrade4411@yahoo.com; Holloman, Stephanie  
**Subject:** RE: checking in on gender equity initiatives  
**Attachments:** Stubbed Attachments.htm

This message's contents have been archived by the Barracuda Message Archiver.

[FFT Statistics 2018-2020.xlsx](#) (36.7K)

Good evening Minouche –

Per your request, the enclosed excel file contains three tabs of data reflecting gender and race statistics for the Firefighter Trainee (FFT) recruitment processes that OCFA initiated in calendar years 2018, 2019, and 2020.

Each calendar year, we launch a new FFT recruitment process, which we use to seat candidates into at least two FFT Academies that are conducted in the following calendar year. Therefore, the statistical spreadsheet for 2018 is fully completed from recruitment through hiring; however, the spreadsheet for the 2019 and 2020 recruitment processes demonstrate that the final steps of the hiring processes are not yet complete.

All steps that have been completed to-date for these two recruitment processes are reflected in the data.

Please let us know if you have any questions.

Chief Fennessy



**Brian Fennessy**

Fire Chief  
Orange County Fire Authority  
714.573.6010 (Office)  
714.559.2700 (Mobile)  
[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)  
[www.ocfa.org](http://www.ocfa.org)

*In service of others!*

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---

**From:** Minouche Kandel [mailto:MKandel@aclusocal.org]  
**Sent:** Monday, September 14, 2020 20:27  
**To:** Fennessy, Brian <brianfennessy@ocfa.org>  
**Cc:** Zeller, Lori <LoriZeller@ocfa.org>; braileanu@wss-law.com; Ruane, Jim <JimRuane@ocfa.org>; Windsor, Colleen

**Orange County Fire Authority**  
**Firefighter Trainee Recruitment Diversity Statistics**  
**2018 Recruitment Process**

	Gender Statistics				Race Statistics (See Legend)								
	Males	Females	Unknown	Total	WH	BL	HIS	ASI	AM	FIL	OT	Unknown	Total
Applicants - Count	3307	155	154	3616	1631	141	1187	224	46	58	128	201	3616
% of Total Applicants	91.5%	4.3%	4.3%	100.0%	45.1%	3.9%	32.8%	6.2%	1.3%	1.6%	3.5%	5.6%	100.0%
Passed Written Exam	1237	52	65	1354	724	21	347	103	11	19	44	85	1354
% of Total Passed	91.4%	3.8%	4.8%	100.0%	53.5%	1.6%	25.6%	7.6%	0.8%	1.4%	3.2%	6.3%	100.0%
% Passed per Applicant Statistical Category for this Step (Note)	37.4%	33.5%	42.2%	n/a	44.4%	14.9%	29.2%	46.0%	23.9%	32.8%	34.4%	42.3%	n/a
Passed Biddle Exam	1011	24	50	1085	592	18	270	80	10	12	34	69	1085
% of Total Passed	93.2%	2.2%	4.6%	100.0%	54.6%	1.7%	24.9%	7.4%	0.9%	1.1%	3.1%	6.4%	100.0%
% Passed per Applicant Statistical Category for this Step	81.7%	46.2%	76.9%	n/a	81.8%	85.7%	77.8%	77.7%	90.9%	63.2%	77.3%	81.2%	n/a
Passed Oral Interview	443	16	28	487	262	10	121	33	4	4	16	37	487
% of Total Passed	91.0%	3.3%	5.7%	100.0%	53.8%	2.1%	24.8%	6.8%	0.8%	0.8%	3.3%	7.6%	100.0%
% Passed per Applicant Statistical Category for this Step	43.8%	66.7%	56.0%	n/a	44.3%	55.6%	44.8%	41.3%	40.0%	33.3%	47.1%	53.6%	n/a
Hired into Academies (A47, A48)	82	13	5	100	52	3	23	10	0	1	2	9	100
% of Total Hired	82.0%	13.0%	5.0%	100.0%	52.0%	3.0%	23.0%	10.0%	0.0%	1.0%	2.0%	9.0%	100.0%
% Hired per Applicant Statistical Category for this Step	18.5%	81.3%	17.9%	n/a	19.8%	30.0%	19.0%	30.3%	0.0%	25.0%	12.5%	24.3%	n/a
Graduated from Academies (A47, A48)	57	3	5	65	35	1	13	7	0	0	2	7	65
% of Total Graduated	87.7%	4.6%	7.7%	100.0%	53.8%	1.5%	20.0%	10.8%	0.0%	0.0%	3.1%	10.8%	100.0%
% Graduated per Applicant Statistical Category for this Step	69.5%	23.1%	100.0%	n/a	67.3%	33.3%	56.5%	70.0%	n/a	0.0%	100.0%	77.8%	n/a

**Legend from NeoGov:**

WH = White - (not of Hispanic origin). All persons having origins in any of the original peoples of Europe, North Africa, the Middle East, or the Indian Subcontinent.

BL = Black - (not of Hispanic origin). All persons having origins in any of the black racial groups.

HIS = All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

ASI = Asian or Pacific Islanders. All persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands.

AM = American Indian or Alaskan Native. All persons having origins in any of the peoples of North America.

FIL = Filipino. Includes only Filipino.

OT = Other

Unknown = Applicants who chose not to provide information

**Note:**

For example, 37.4% of the males who took the written exam, passed the exam, and 33.5% of the females who took the exam, passed the exam

**Orange County Fire Authority  
Firefighter Trainee Recruitment Diversity Statistics  
2019 Recruitment Process**

	Gender Statistics				Race Statistics (See Legend)								
	Males	Females	Unknown	Total	WH	BL	HIS	ASI	AM	FIL	OT	Unknown	Total
Applicants - Count	3210	155	143	3508	1614	139	1103	216	46	68	121	201	3508
% of Total Applicants	91.5%	4.4%	4.1%	100.0%	46.0%	4.0%	31.4%	6.2%	1.3%	1.9%	3.4%	5.7%	100.0%
Passed Written Exam	1829	79	85	1993	996	53	585	127	24	28	54	126	1993
% of Total Passed	91.8%	4.0%	4.3%	100.0%	50.0%	2.7%	29.4%	6.4%	1.2%	1.4%	2.7%	6.3%	100.0%
% Passed per Applicant Statistical Category for this Step (Note)	57.0%	51.0%	59.4%	n/a	61.7%	38.1%	53.0%	58.8%	52.2%	41.2%	44.6%	62.7%	n/a
Passed Biddle Exam	1470	25	59	1554	787	41	452	96	18	21	43	96	1554
% of Total Passed	94.6%	1.6%	3.8%	100.0%	50.6%	2.6%	29.1%	6.2%	1.2%	1.4%	2.8%	6.2%	100.0%
% Passed per Applicant Statistical Category for this Step	80.4%	31.6%	69.4%	n/a	79.0%	77.4%	77.3%	75.6%	75.0%	75.0%	79.6%	76.2%	n/a
Passed Oral Interview	457	11	14	482	267	14	111	31	6	2	17	34	482
% of Total Passed	94.8%	2.3%	2.9%	100.0%	55.4%	2.9%	23.0%	6.4%	1.2%	0.4%	3.5%	7.1%	100.0%
% Passed per Applicant Statistical Category for this Step	31.1%	44.0%	23.7%	n/a	33.9%	34.1%	24.6%	32.3%	33.3%	9.5%	39.5%	35.4%	n/a
Hired into Academies (A49, A50, A51)	110	5	1	116	73	3	22	7	1	2	1	7	116
% of Total Hired	94.8%	4.3%	0.9%	100.0%	62.9%	2.6%	19.0%	6.0%	0.9%	1.7%	0.9%	6.0%	100.0%
% Hired per Applicant Statistical Category for this Step	24.1%	45.5%	7.1%	n/a	27.3%	21.4%	19.8%	22.6%	16.7%	100.0%	5.9%	20.6%	n/a
Graduated from Academies (A49, A50, A51)													
% of Total Graduated	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% Graduated per Applicant Statistical Category for this Step	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n/a
Graduation statistics are pending completion of Academy A51 in November.													

**Legend from NeoGov:**

WH = White - (not of Hispanic origin). All persons having origins in any of the original peoples of Europe, North Africa, the Middle East, or the Indian Subcontinent.

BL = Black - (not of Hispanic origin). All persons having origins in any of the black racial groups.

HIS = All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

ASI = Asian or Pacific Islanders. All persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands.

AM = American Indian or Alaskan Native. All persons having origins in any of the peoples of North America.

FIL = Filipino. Includes only Filipino.

OT = Other

Unknown = Applicants who chose not to provide information

**Note:**

For example, 57% of the males who took the written exam, passed the exam, and 51% of the females who took the exam, passed the exam

Orange County Fire Authority  
Firefighter Trainee Recruitment Diversity Statistics  
2020 Recruitment Process

	Gender Statistics				Race Statistics (See Legend)								
	Males	Females	Unknown	Total	WH	BL	HIS	ASI	AM	FIL	OT	Unknown	Total
Applicants - Count	3059	174	72	3305	1547	137	1081	215	40	58	109	118	3305
% of Total Applicants	92.6%	5.3%	2.2%	100.0%	46.8%	4.1%	32.7%	6.5%	1.2%	1.8%	3.3%	3.6%	100.0%
Passed Written Exam	1681	85	36	1802	926	46	514	136	23	31	59	67	1802
% of Total Passed	93.3%	4.7%	2.0%	100.0%	51.4%	2.6%	28.5%	7.5%	1.3%	1.7%	3.3%	3.7%	100.0%
% Passed per Applicant Statistical Category for this Step (Note)	55.0%	48.9%	50.0%	n/a	59.9%	33.6%	47.5%	63.3%	57.5%	53.4%	54.1%	56.8%	n/a
Passed Oral Interview (sequence changed due to COVID)	486	24	11	521	290	14	137	29	3	7	18	23	521
% of Total Passed	93.3%	4.6%	2.1%	100.0%	55.7%	2.7%	26.3%	5.6%	0.6%	1.3%	3.5%	4.4%	100.0%
% Passed per Applicant Statistical Category for this Step	28.9%	28.2%	30.6%	n/a	31.3%	30.4%	26.7%	21.3%	13.0%	22.6%	30.5%	34.3%	n/a
Passed Biddle Exam (sequence changed due to COVID)	439	13	11	463	264	13	118	25	2	5	15	21	463
% of Total Passed	94.8%	2.8%	2.4%	100.0%	57.0%	2.8%	25.5%	5.4%	0.4%	1.1%	3.2%	4.5%	100.0%
% Passed per Applicant Statistical Category for this Step	90.3%	54.2%	100.0%	n/a	91.0%	92.9%	86.1%	86.2%	66.7%	71.4%	83.3%	91.3%	n/a
Hired into Academies (A52, A53)				0									0
% of Total Hired	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% Hired per Applicant Statistical Category for this Step	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n/a
Graduated from Academies (A52, A53)				0									0
% of Total Graduated	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% Graduated per Applicant Statistical Category for this Step	#DIV/0!	#DIV/0!	#DIV/0!	n/a	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	n/a
Hiring and graduation statistics are pending completion of the hiring process and academies. Academy 52 will begin in Feb 2021 and Academy 53 will begin in Aug 2021.													

Legend from NeoGov:

WH = White - (not of Hispanic origin). All persons having origins in any of the original peoples of Europe, North Africa, the Middle East, or the Indian Subcontinent.

BL = Black - (not of Hispanic origin). All persons having origins in any of the black racial groups.

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ASI = Asian or Pacific Islanders. All persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands.

AM = American Indian or Alaskan Native. All persons having origins in any of the peoples of North America.

FIL = Filipino. Includes only Filipino.

OT = Other

Unknown = Applicants who chose not to provide information

Note:

For example, 55% of the males who took the written exam, passed the exam, and 48.9% of the females who took the exam, passed the exam

## Zeller, Lori

---

**From:** Aditi Fruitwala <AFruitwala@aclusocal.org>  
**Sent:** Tuesday, May 11, 2021 9:30 AM  
**To:** Fennessy, Brian  
**Cc:** Zeller, Lori; braileanu@wss-law.com; Ruane, Jim; Windsor, Colleen; Holloman, Stephanie; Minouche Kandel; lauren andrade  
**Subject:** Checking in on gender equity initiatives  
**Attachments:** Stubbed Attachments.htm

This message's contents have been archived by the Barracuda Message Archiver.

[FFT Statistics 2018-2020.html](#) (20.2K)

[We sent you safe versions of your files](#) (27.7K)

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

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Dear Chief Fennessy:

Captain Andrade informed us that the lactation accommodations have been installed in all 70 fire stations in OCFA, the survey of the restroom facilities has been completed, and the manipulative test has been updated to more accurately reflect the requirements of the job. Congratulations on these meaningful steps! We are grateful for your continued commitment to gender equity in OCFA.

We have a few issues that we'd like to check-in on:

- Restroom construction: When we last spoke, you indicated that following the survey of the restrooms, OCFA will start construction to update the restroom facilities in the fire stations. Can you provide a timeframe for this work? We recognize this is a multi-year project. Do you have an estimate for the number of restrooms/year that will be completed?
- Accommodations for lactating people: We understand that the SOP has been updated to allow lactating people to request to be removed from the no-force list. When will the policy be in effect?
- Test validation: When we last spoke, you were in the process of validating the test. Is the validation complete; and if so, can you send us the results?
- Gender discrepancy: In September 2020, you sent us a chart (attached here) detailing the demographics of applicants, those who passed the written exam, those who passed the biddle exam, those who passed the oral interview, those who were hired into academies, and those who graduated from academies. Can you provide an updated chart with data through 2020? Can you also include the demographic information for those who passed probation?

Thank you for your continued collaboration in this work.

Sincerely,

Aditi

## Zeller, Lori

---

**From:** Fennessy, Brian  
**Sent:** Monday, May 17, 2021 3:52 PM  
**To:** Aditi Fruitwala  
**Cc:** Zeller, Lori; braileanu@wss-law.com; Ruane, Jim; Windsor, Colleen; Holloman, Stephanie; Minouche Kandel; lauren andrade  
**Subject:** RE: Checking in on gender equity initiatives  
**Attachments:** Stubbed Attachments.htm

This message's contents have been archived by the Barracuda Message Archiver.

[Diversity & Inclusion Recruitment Announcement.pdf](#) (160.6K)

[DIVERSITY 2018 - PRESENT as of May 2021.xlsx](#) (45.4K)

[Letter to A. Fruitwala re Diversity and Inclusion Initiatives - May 17, 2021.pdf](#) (339.7K)

Hi Aditi,

Thank you for your patience while staff gathered the attached information. I've included a letter from me to you that will provide the latest update on our activities.

Please let me know if upon review, you have any questions or concerns.

Thanks again and take care.

Chief Fennessy



**Brian Fennessy**

Fire Chief

Orange County Fire Authority

714.573.6010 (Office)

714.559.2700 (Mobile)

[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)

[www.ocfa.org](http://www.ocfa.org)

*In service of others!*

---

**From:** Aditi Fruitwala <AFruitwala@aclusocal.org>

**Sent:** Tuesday, May 11, 2021 4:40 PM

**To:** Fennessy, Brian <brianfennessy@ocfa.org>

**Cc:** Zeller, Lori <LoriZeller@ocfa.org>; braileanu@wss-law.com; Ruane, Jim <JimRuane@ocfa.org>; Windsor, Colleen <ColleenWindsor@ocfa.org>; Holloman, Stephanie <StephanieHolloman@ocfa.org>; Minouche Kandel <MKandel@aclusocal.org>; lauren andrade <landrade4411@gmail.com>

**Subject:** RE: Checking in on gender equity initiatives

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# ORANGE COUNTY FIRE AUTHORITY

P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602

Brian Fennessy, Fire Chief

(714) 573-6000

[www.ocfa.org](http://www.ocfa.org)

May 17, 2021

Aditi Fruitwala  
ACLU of Southern California  
1313 W 8th Street, Suite 200  
Los Angeles, CA 90017

***Re: Update for OCFA Diversity & Inclusion Initiatives***

Dear Ms. Fruitwala:

On behalf of the Orange County Fire Authority ("OCFA"), I am pleased to provide this update regarding ongoing diversity and inclusion initiatives within the Authority.

**Fire Station Restroom and Shower Facilities.** As discussed during our prior meetings with you, OCFA's goal is to improve our fire station facilities beyond minimum thresholds and make separate facilities available at equally convenient locations for male and female firefighters. Progress for this initiative includes:

- Fire Captain Lauren Andrade was selected to fill a temporary position that the Authority created, titled "Inclusive Facilities Coordinator." In this special assignment, Captain Andrade assisted Property Management in surveying the inclusive facility needs at all OCFA fire stations, and she assisted with planning, prioritization, and implementation of interim measures that could be completed, pending more significant renovations.
- A new limited-term Construction Manager position was created, specifically chartered to lead and oversee completion of the inclusive facility renovations for the Authority. Julie Samaniego was hired to fill this position, and Ms. Samaniego is using the survey work performed by Captain Andrade for fulfilling this multi-year initiative.
- The Fire Stations Inclusive Facilities project is underway. Phase one of the station modifications has included the installation or verification of restroom and/or lactation room signage and privacy locks at all Fire Stations. Phase two of the Inclusive Facilities project will address the stations that require structural modifications to accomplish substantial improvement beyond minimum thresholds for gender accommodations. We are targeting completion of structural modifications at roughly three to four stations per year.

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**RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES**

**Lactation Accommodations:** The OCFA is committed to promoting a work environment that is supportive of breastfeeding employees who wish to continue nursing their children when they return to work. Improvement of lactation accommodations in our facilities and policies are important components of OCFA's diversity and inclusion initiatives. Actions completed for this initiative include:

- Lactation accommodations have been installed in all facilities.
- A new Lactation Accommodations Policy (SOP HR 02.12) was prepared and circulated to the Authority's four labor associations for review and input on March 24, 2021, as required. Specifically, Orange County Professional Firefighters Association's (OCPFA) MOU requires:

*"If, during the term of this MOU, the Fire Authority proposes to change any policy, rules, regulations, standard operating procedures and general orders with the scope of representation that are not set forth in this MOU, it will provide the Association with written notice at least thirty (30) calendar days prior to implementation. If the Association files a request to meet and confer over a proposed change, the Fire Authority will not implement the proposed change until mutual agreement is reached or the meet and confer process is exhausted."*

OCPFA has requested to meet and confer over the content of SOP HR 02.12; therefore, we are unable to indicate when the process of obtaining agreement will be completed. However, we will continue to work diligently towards agreement and implementation.

One aspect of the proposed SOP that we'd like to clarify is that SOP HR 02.12 does not provide for exemption of lactating employees from force-hiring. Rather, OCFA has alternative policies that govern the process for employees to seek exemption from force-hiring.

**Validation of Manipulative Skills Test:** OCFA has completed multiple phases of testing validation through an independent firm, Fire & Police Selection Incorporated (FPSI). However, as we reported to you previously, the actual validation reports must remain confidential due to the content which discloses detailed testing processes. Testing information is exempt from disclosure under Government Code Section 6254(g). This is consistent with our responses to others who have previously requested reports covering various elements of OCFA's recruitment and testing processes. That said, following are updates relative to our validation and testing processes:

- One aspect of the completed validation process included development of an "exertion scale" used to consistently apply the validated tests during the six-month and twelve-month skills test.
- The above referenced "exertion scale" was then used to group validated manipulative skills in a manner that allows OCFA to administer Engine Company Operations and Truck Company Operations in a scenario-based manner which ensures the examinations are of

similar difficulty and level of exertion. The scenario validation provided for consistency and fairness during the 6-month and 12-month examination processes.

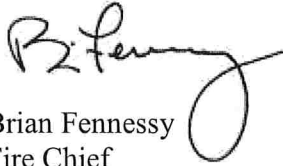
- Building upon the independent validation processes above, the OCFA is now pursuing State Fire Training Accreditation for OCFA's Firefighter Academy as the next phase of work to ensure that the Academy's course content and associated testing remains accurately correlated with Firefighter job performance requirements.

**Diversity Statistics – Firefighter Recruitment Processes:** We have separately enclosed an excel file containing multiple tabs of data relative to our Firefighter recruitment processes, from 2018 through current. Per your request, we've added a data element to reflect the completion of probation. The statistics for this probation category have only been populated in the 2018 tab of data, as the remaining years are still in various stages pending completion (i.e., the 2019 recruitment process placed candidates in the calendar year 2020 academies, for which probation won't be completed until 2021).

**Diversity & Inclusion Coordinator:** The process of developing and implementing OCFA's new Diversity & Inclusion Coordinator position is near completion. OCFA began recruiting to fill this position on February 15, 2021, and following a thorough vetting process for a competitive candidate pool, we've selected a finalist who is currently progressing through the background process. We anticipate our selected candidate will begin employment as OCFA's Diversity & Inclusion Coordinator on May 24, 2021. Attached is the Class Specification/Recruitment Bulletin for the position.

We believe our steady progress and continuous actions are positive demonstrations of our commitment to improving the work environment for female firefighters at the OCFA, and for propelling cultural growth that embraces a diverse workforce.

Sincerely,



Brian Fennessy  
Fire Chief

cc: Minouche Kandel, ACLU of Southern California  
Lauren Andrade, Fire Captain  
Lori Zeller, Deputy Chief, Administration & Support Bureau  
Stephanie Holloman, Assistant Chief/Human Resources Director  
Barbara Raileanu, Woodruff, Spradlin & Smart

Dear Chief Fennessy:

Thank you for your May 17, 2021 update on the gender diversity and inclusion initiatives at OCFA. We appreciate your continued commitment and collaboration.

We have two issues that we'd like to follow-up on:

- **Restroom construction:** It is our understanding that OCFA estimates that the women's restrooms in fire stations will be completed by March 2029. Can you let us know why the restroom construction will span 8 years? If the issue is lack of funding, we would be happy to help advocate with the city or county for increased funding to finish this crucial project in a shorter timeframe.
- **Lactation accommodations policy:** In your May 17 letter, you noted that you are in the process of meeting and conferring with the Orange County Professional Firefighters Association over the content of SOP HR 02.12. Can you provide us with a copy of SOP HR 02.12 and an update on whether SOP HR 02.12 has been implemented?

Thank you for your work, and we look forward to hearing from you.

Sincerely,



Aditi Fruitwala  
Staff Attorney  
LGBTQ/Gender/Reproductive Justice  
ACLU Southern California

**EXECUTIVE DIRECTOR** Hector O. Villagra

**CHAIR** Marla Stone **VICE CHAIRS** Sherry Frumkin and Frank Broccolo

**CHAIRS EMERITI** Shari Leinwand Stephen Rohde Danny Goldberg Allan K. Jonas\* Burt Lancaster\* Irving Lichtenstein, MD\* Jarl Mohn  
Laurie Ostrow\* Stanley K. Sheinbaum\*

\*deceased



# ORANGE COUNTY FIRE AUTHORITY

P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602

Brian Fennessy, Fire Chief

(714) 573-6000

[www.ocfa.org](http://www.ocfa.org)

August 26, 2021

Aditi Fruitwala  
ACLU of Southern California  
1313 West 8th Street, Suite 200  
Los Angeles, CA 90017

Dear Ms. Fruitwala:

Thank you for your August 24<sup>th</sup> letter regarding our ongoing diversity and inclusion initiatives within the Authority. Below is a recap of the questions included in your letter, and our responses.

**Question – Restroom Construction:** “It is our understanding that OCFA estimates that the women’s restrooms in fire stations will be completed by March 2029. Can you let us know why restroom construction will span 8 years? If the issue is lack of funding, we would be happy to help advocate with the city or county for increased funding to finish this crucial project in a shorter timeframe.”

**OCFA Response:**

The Inclusive Facility Accommodations Project is fully funded and follows a strategic schedule to ensure each of the remaining stations is properly completed without causing hardship to the communities they serve. Each remodel will cause a disruption to the daily activities of the crew stationed within. In most cases, the normal daily time required for hygiene practices will be increased depending on available access to temporary restrooms and showers. To maintain our commitment to delivering excellent service and meeting the needs of the communities in which we serve, a few strategically selected stations will be actively under construction at one time.

A single station remodel takes approximately 14 to 18 months from start to completion to properly complete the drawings, obtain a building permit, advertise, solicit for a public works bid, review the bids, submit the selected bidder to the Board of Directors for review and approval, award the bid, properly stage and complete construction. While there are three stations scheduled to be under construction at any given time, we will be actively working on approximately six stations at once. While stations are under construction, the design will begin on the next scheduled group of stations to maintain forward progression.

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Tustin • Villa Park • Westminster • Yorba Linda • and Unincorporated Areas of Orange County

**RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES**

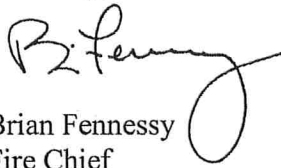
**Question – Lactation Accommodations Policy:** “In your May 17 letter, you noted that you are in the process of meeting and conferring with the Orange County Professional Firefighters Association over the content of SOP HR 02.12. Can you provide us with a copy of SOP HR 02.12 and an update on whether SOP HR 02.12 has been implemented?”

**OCFA Response:**

The Authority is actively engaged in responding to questions and concerns from the labor groups. The final date to submit any additional comments is August 30. The Authority will then finalize and adopt SOP HR 02.12 (attached) if no other concerns are raised.

We hope you find this information responsive to your questions. We also appreciate your continued commitment and collaboration with OCFA.

Sincerely,



Brian Fennessy  
Fire Chief

**Attachment**

SOP HR 02.12 Lactation Accommodation Policy

cc: Minouche Kandel, ACLU of Southern California  
Lauren Andrade, Fire Captain  
Lori Zeller, Deputy Chief, Administration & Support Bureau  
Stephanie Holloman, Assistant Chief/Human Resources Director  
Jim Ruane, Assistant Chief/Logistics Department  
Julian Velarde, Diversity & Inclusion Coordinator  
Barbara Raileanu, Woodruff, Spradlin & Smart

**Zeller, Lori**

---

**From:** Aditi Fruitwala <AFruitwala@aclusocal.org>  
**Sent:** Monday, November 15, 2021 3:32 PM  
**To:** Fennessy, Brian  
**Cc:** Zeller, Lori; braileanu@wss-law.com; Ruane, Jim; Holloman, Stephanie; Minouche Kandel; lauren andrade; Dossey, Kenny  
**Subject:** RE: Checking in on gender equity initiatives

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Dear Chief Fennessy:

I hope you had a wonderful weekend. I'm writing to check-in on the status of the restrooms and lactation policies.

On restroom construction, we are thrilled to hear that the restrooms are fully funded and that OCFA will be working on 3-6 stations at any given time. Can you please provide us with an update on how many stations have been completed and how many are left to complete?

On lactation accommodations, thank you for providing us with a copy of SOP HR 02.12. While we are glad to see that the policy complies with the mandates of the California Labor Code, we are concerned that such a policy still does not address the needs of lactating and post-partum people at OCFA. At a previous meeting, you and your staff agreed to consider the possibility of adopting a policy to not force hire lactating people. Can you please explain why that policy wasn't adopted? It is our understanding that the union would support such a policy; and given the extremely small number of lactating people at any given time, it does not seem like such a policy would create a substantial burden on OCFA.

Thank you for your responses.

Warmly,  
Aditi

---

**From:** Fennessy, Brian <brianfennessy@ocfa.org>  
**Sent:** Friday, August 27, 2021 2:12 PM  
**To:** Aditi Fruitwala <AFruitwala@aclusocal.org>  
**Cc:** Zeller, Lori <LoriZeller@ocfa.org>; braileanu@wss-law.com; Ruane, Jim <JimRuane@ocfa.org>; Holloman, Stephanie <StephanieHolloman@ocfa.org>; Minouche Kandel <MKandel@aclusocal.org>; lauren andrade <landrade4411@gmail.com>; Dossey, Kenny <KennyDossey@ocfa.org>  
**Subject:** RE: Checking in on gender equity initiatives

Dear Aditi:

Please find a letter of response from OCFA attached to this email.

Thank you,



# ORANGE COUNTY FIRE AUTHORITY

P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602  
Brian Fennessy, Fire Chief (714) 573-6000 [www.ocfa.org](http://www.ocfa.org)

December 1, 2021

Aditi Fruitwala  
ACLU of Southern California  
1313 West 8th Street, Suite 200  
Los Angeles, CA 90017

Dear Ms. Fruitwala:

We received your November 15<sup>th</sup> e-mail regarding our ongoing diversity and inclusion initiatives within the Authority. Below is a recap of the questions included in your letter, and our responses.

**Question – Restroom Construction:** “We are thrilled to hear that the restrooms are fully funded and that OCFA will be working on 3-6 stations at any given time. Can you please provide us with an update on how many stations have been completed and how many are left to complete?”

**OCFA Response:**

Enclosed is the OCFA’s Quarterly Capital Improvement Project (CIP) Update, which was presented by Chief Ruane to the Executive Committee at the meeting of October 28, 2021. Project #8 references current work on our ongoing inclusive facilities projects, which includes restroom construction. These quarterly updates are presented to the Executive Committee publicly, and are available for review on OCFA’s website as part of the published agenda packets for the Executive Committee meetings.

Additionally, the September edition of the Chief’s Monthly Bulletin (enclosed) for the OCFA Board of Directors includes an up-to-date phasing schedule for all remaining Fire Stations requiring remodels. This information can be found on page three of the Bulletin.

In summary, a total of 5 stations will be complete, or close to completion, at the start of the new calendar year. An additional 7 stations are in various stages of construction from permitting to pre-bidding, while 2 more are in the pre-design stage. With our ongoing progression, we will continue to maintain our current projected schedule for completion of the inclusive facilities project as outlined in the most recent phasing schedule.

**Question – Lactation Accommodations Policy:** “Thank you for providing us with a copy of SOP HR 02.12. While we are glad to see that the policy complies with the mandates of the California Labor Code, we are concerned that such a policy still does not address the needs of lactating and post-partum people at OCFA. At a previous meeting, you and your staff agreed to consider the possibility of adopting a policy to not force hire lactating people. Can you please explain why that policy wasn’t adopted? It is our understanding that the union would support such a policy; and given the extremely small number of lactating people at any given time, it does not seem like such a policy would create a substantial burden on OCFA.”

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Tustin • Villa Park • Westminster • Yorba Linda • and Unincorporated Areas of Orange County

**RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES**

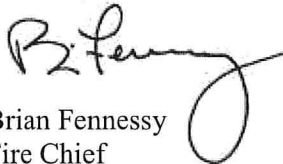
**OCFA Response:**

The draft policy provision for exemption from forces was thoroughly discussed and evaluated by the Human Resources management team, and was ultimately removed before the draft SOP that was presented to the unions for the following reasons:

- A provision to exempt lactating employees from force hiring was initially considered for inclusion in the draft policy prior to installation of lactation accommodations in all OCFA facilities. In considering this policy provision, management's intent was to avoid forcing a lactating employee to work at a station with inadequate facilities. However, now that all stations include a designated lactation room, lactating employees can work at any station (whether regular shift, voluntary overtime, or forces).
- In the event that lactating employees have care issues that preclude them from working forces, the OCFA has leave and FMLA provisions that would allow for force exemption if there was a qualifying need for the employee to not work forces. Employees should use the OCFA's existing provisions for leave and FMLA, if necessary, to seek accommodation instead of creating a parallel path through the Lactation Policy. This ensures all accommodation requests are evaluated through a consistent process.
- The Lactation Policy addresses the need for the Authority to provide a compliant place to lactate and to give reasonable time during the work-shift to lactate. An exemption from overtime is not required under the law. The Lactation Policy is not the appropriate place to address a force exemption, which is separately addressed through leave and FMLA provisions.

We hope you find this information responsive to your questions. We also appreciate your continued commitment and collaboration with OCFA.

Sincerely,



Brian Fennessy  
Fire Chief

**Attachments**

October 2021 Quarterly Capital Improvement Program Update  
September 2021 Chief's Monthly Bulletin

cc: Minouche Kandel, ACLU of Southern California  
Lauren Andrade, Fire Captain  
Lori Zeller, Deputy Chief, Administration & Support Bureau  
Kenny Dossey, Deputy Chief, Emergency Operations Bureau  
Stephanie Holloman, Assistant Chief/Human Resources Director  
Jim Ruane, Assistant Chief/Logistics Department  
Julian Velarde, Diversity & Inclusion Coordinator  
Barbara Raileanu, Woodruff, Spradlin & Smart

**Zeller, Lori**

---

**From:** Aditi Fruitwala <AFruitwala@aclusocal.org>  
**Sent:** Tuesday, December 7, 2021 12:38 PM  
**To:** Fennessy, Brian  
**Cc:** Zeller, Lori; braileanu@wss-law.com; Ruane, Jim; Holloman, Stephanie; Minouche Kandel; lauren andrade; Dossey, Kenny; Velarde, Julian  
**Subject:** RE: Checking in on gender equity initiatives

**CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

---

Hi Chief Fennessy:

Thank you for this information. We appreciate you keeping us updated on the restroom construction.

Sincerely,  
Aditi

---

**From:** Fennessy, Brian <brianfennessy@ocfa.org>  
**Sent:** Thursday, December 2, 2021 3:53 PM  
**To:** Aditi Fruitwala <AFruitwala@aclusocal.org>  
**Cc:** Zeller, Lori <LoriZeller@ocfa.org>; braileanu@wss-law.com; Ruane, Jim <JimRuane@ocfa.org>; Holloman, Stephanie <StephanieHolloman@ocfa.org>; Minouche Kandel <MKandel@aclusocal.org>; lauren andrade <landrade4411@gmail.com>; Dossey, Kenny <KennyDossey@ocfa.org>; Velarde, Julian <JulianVelarde@ocfa.org>  
**Subject:** RE: Checking in on gender equity initiatives

Hi Aditi,

Thanks again for your patience. Had hoped to provide earlier in the week.

Please find the attached letter and attachments addressing your November 15th e-mail regarding our ongoing diversity and inclusion initiatives within the Authority.

Have a great weekend and as always, let me know how we can assist further.

Chief Fennessy



**Brian Fennessy**

Fire Chief  
Orange County Fire Authority  
714.573.6010 (Office)  
714.559.2700 (Mobile)  
[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)  
[www.ocfa.org](http://www.ocfa.org)

*In service of others!*

## **Orange County Fire Authority Outreach & Recruitment - Participation in Job Fairs**

OCFA has always participated in Job Fairs as an avenue to promote a career in fire services, and specifically, a career as a firefighter with OCFA. Due to the pandemic, since February 2020, the recruitment team was limited in ability to participate in the in-person recruitment events that we had always joined prior to 2020. However, OCFA still participated in virtual Job Fairs, as follows:

- Cal-JAC Recruitment Workshop Webinar (2021)
- Virtual Job Fair, Fleet and Family Services. Naval Base Coronado (2020 and 2021)
- Cal State Fullerton - Spring 2022 Edition of Titan Takeover: Virtual Career Exploration Program.
- Cal-JAC Presents "Recruitment in the Spotlight: (2022)
- Mt. San Antonio College EMT class (2021 and 2022)

Now that career fairs are becoming available again, it is the goal of Human Resources in collaboration with the Outreach and Recruitment Team to identify career fairs for OCFA participation. Below is a list of Job Fair events attended by the recruitment team the 10 months prior to the pandemic (April 2019 – February 2020) and which we will seek to participate in again moving forward, post-pandemic:

- Chapman University
- Laguna Niguel Career Fair Spring
- OCFA Open House
- Cal State Fullerton
- Cal JAC Norwalk
- Cal-JAC San Diego
- Crafton Hills College
- LBC Diversity
- Loyola Marymount University
- Saddleback College
- Laguna Niguel Career Fair Fall
- Camp Pendleton
- Cal-JAC San Diego
- Cal State Fullerton – Athletes Only
- CSU Long Beach
- Biola University
- University California Irvine
- Tustin High School
- Hillview High School
- San Pasqual Fire Academy
- Palomar Fire Academy
- Santa Ana Fire Academy
- El Camino College Fire Academy



## ***Diversity, Equity, and Inclusion (DE&I) at the OCFA***

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### **DE&I Statement & Principles**

The OCFA recognizes the importance and benefits of a workforce that is culturally diverse with respect to the communities we serve, equitable in its organizational practices, and inclusive of key stakeholders in decision-making processes. The OCFA is committed to the following principles in support of DE&I efforts:

- **Representation:** Understanding that individuals and groups shape organizational policies and practices, we will ensure that key stakeholders are part of the decision-making process and that there is equitable representation and participation.
- **Access:** We will ensure equitable access to resources and opportunities and address any gaps in the process and inhibitors to success.
- **Anti-Bias:** We recognize that bias can be explicit as well as implicit and we will consciously examine and challenge biases in our policies and best practices.
- **Accountability:** All OCFA personnel should be held accountable for their engagement of and contribution toward DE&I efforts. In addition, there will be ongoing assessment of DE&I practices across the organization to include hiring, promotion, and pay equity across classifications.
- **DE&I Scholarship and Best Practices:** We shall maintain current understanding of DE&I scholarship/research and best practices and disseminate that information as needed. In addition, staff will be invited to participate in DE&I trainings to increase their DE&I competency and application of changing concepts and practices.

### **Diversity, Equity, and Inclusion Terms Defined**

The OCFA defines diversity, equity, and inclusion as accepted among intercultural scholars and practitioners as follows:

**Diversity** – the range of similarities and differences that each individual brings, including, but not limited to, national origin, language, color, disability, ethnicity, gender/gender identity, age, religion and belief, sexual orientation, socio-economic status, veteran status, family structure, and diversity of thought, that are shaped by culture, background, experiences, and other elements.

**Equity** – consistent, systematic, fair, just, and impartial treatment, access, opportunity, and advancement for all individuals, including individuals who historically have been denied such treatment, while striving to identify and eliminate barriers that might prevent any employee's full and equitable participation in the workplace.

**Inclusion** – set of behaviors (e.g., welcoming new employees, paying attention and extending an invitation, seeking and respecting other perspectives, etc.) that promote equal access to opportunities and resources for individuals who might otherwise be excluded or marginalized.

June 22, 2022

Sent via email: coa@ocfa.org

**RE: Public Comment on Agenda Item 3A: OCFA Diversity, Equity and Inclusion Initiatives from 2019 Collaboration with ACLU to 2022 Climate Survey**

To the Honorable Members of the Orange County Fire Authority Board of Directors:

The American Civil Liberties Union of Southern California (ACLU) submits this public comment in connection with Item 3A – OCFA’s Diversity, Equity and Inclusion Initiatives from 2019 Collaboration with ACLU to 2022 Climate Survey. The ACLU appreciates our ongoing discussions with OCFA on improving gender equity at OCFA and strongly urges OCFA to act with greater urgency to achieve compliance with federal and state laws that require gender inclusive facilities.

The ACLU is a nonprofit, nonpartisan organization dedicated to furthering the principles of liberty and equality embodied in the United States Constitution and this Nation’s civil rights laws. As such, the ACLU seeks to advance the civil rights of women, transgender and gender-nonconforming individuals, and pregnant firefighters in Orange County.

As noted in the Staff Report, since 2019, the ACLU has been supporting Captain Lauren Andrade in her advocacy with OCFA to make Fire Authority facilities and practices gender inclusive, and compliant with state and federal anti-discrimination and workplace laws. We initially provided OCFA with our suggestions for Creating a More Gender Inclusive Orange County Fire Authority in March of 2019. (See attached document.)

One of the most glaring inadequacies at OCFA was the lack of designated bathrooms and showers for women fire fighters. Title VII, the California Fair Employment and Housing Act, the California Labor Code, the California Industrial Relations Code and federal Occupational Safety and Health regulations all require that women be provided with gender specific bathrooms and showers. When women are forced to share bathrooms with men in gender neutral bathroom, women typically must wait to shower until the men have finished, remaining in clothing that has potentially been exposed to chemicals and toxins for longer than men. Non-compliance contributes to a sexist and unhealthy

EXECUTIVE DIRECTOR Hector O. Villagra

CHAIR Michele Goodwin VICE CHAIRS Rob Hennig and Stacy Horth-Neubert

CHAIRS EMERITI Marla Stone Shari Leinwand Stephen Rohde Danny Goldberg Allan K. Jonas\* Burt Lancaster\* Irving Lichtenstein, MD\*

Jarl Mohn Laurie Ostrow\* Stanley K. Sheinbaum\*

\*deceased

work environment for all firefighters, implying that not all firefighters are deserving of adequate accommodations.

We appreciate the creation of a temporary Inclusive Facility Coordination position and the survey of facilities. However until *all* stations are fully compliant with these laws, OCFA is in violation of the law. The “threshold of providing restrooms and showers for use by male or female firefighters, in complete privacy, without fear of interruption,” noted in the staff report *falls short of what is required by law*.

California’s Labor Code requires separate toilet facilities for each sex if there are five or more employees not of the same gender. Cal. Labor Code § 2350. Similarly, separate showers must be provided for men and women if there are five or more employees. Cal. Code of Reg. § 3366(f)(1). Federal regulations require one shower for each 10 employees of each sex who are required to shower during the same shift. 29 CFR § 1910.141(d)(3)(ii). Gender neutral bathrooms that in reality result in women always going last create disparate treatment of women, in violation of Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. § 2000e, et seq) and the California Fair Employment and Housing Act (Cal. Gov’t. Code §§ 12900-12996). *See Wedow v. City of Kansas City, Mo.*, 442 F.3d 661 (8th Cir. 2006) (holding that a jury is free to conclude that a City discriminated against female firefighters on the basis of sex under Title VII by requiring men and women in this male-dominated workplace to share the men’s restroom). Having 60% of fire stations compliant leaves 40% of stations inadequate. As OCFA delays the completion of the required construction, firefighters are protecting Orange County without protection of their own basic rights to health and safety due to lack of appropriate facilities.

The installation of lactation accommodations in all facilities is a welcome (if overdue) development. We also commend the development of the Outreach and Recruitment Team, the Girls Empowerment Camps, the creation of a Diversity & Inclusion Coordinator position, and the distribution of a DEI Climate Survey. However we note the two recent gender discrimination law suits filed by former women at OCFA flag ongoing discrimination,<sup>1</sup> with a former spokesperson for the OCFA stating: “I would say at the core it is probably an agency from the 1940s or ’50s. They don’t respect women. They don’t respect women in any type of authority.”<sup>2</sup>

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<sup>1</sup> See Trailblazing female helicopter pilot fired by OCFA alleges sexual discrimination, sues to get her job back,” June 9, 2021, *Orange County Register* at [Trailblazing female helicopter pilot fired by OCFA alleges sexual discrimination, sues to get her job back – Orange County Register \(ocregister.com\)](https://www.ocregister.com/2021/06/09/ocfa-pilot-sues-sexual-discrimination/); Ex-KFMB News Anchor, SANDAG and SDG&E Veteran, Sues OC Fire Authority, February 11, 2022, *Orange County Register* at [Ex-KFMB News Anchor, SANDAG and SDG&E Veteran, Sues OC Fire Agency - Times of San Diego](https://www.ocregister.com/2022/02/11/ex-kfmb-news-anchor-sues-oc-fire-authority/).

<sup>2</sup> Ex-KFMB News Anchor, SANDAG and SDG&E Veteran, Sues OC Fire Authority, February 11, 2022, *Orange County Register* at [Ex-KFMB News Anchor, SANDAG and SDG&E Veteran, Sues OC Fire Agency - Times of San Diego](https://www.ocregister.com/2022/02/11/ex-kfmb-news-anchor-sues-oc-fire-authority/).

We call upon the Board to protect the health and wellbeing of *all* Orange County firefighters by requiring compliance with state and federal law. For the health and safety of OCFA employees, the Board must require the immediate construction of compliant facilities and stations.

Sincerely,

A handwritten signature in black ink that reads "Minouche Kandel". The signature is written in a cursive, flowing style.

Minouche Kandel  
Senior Staff Attorney

## Creating a More Gender Inclusive Orange County Fire Authority<sup>1</sup>

### 1. Ensure Gender Inclusive Facilities Within Six Months

- A. **Bathrooms/Showers:** One of the starkest manifestations of gender inequity at the Orange County Fire Authority is the lack of bathrooms for women firefighters. When women are forced to share with men, in practice this results in women having to wait until all the men have showered before they can use the bathroom, resulting in women remaining in clothing that has potentially been exposed to chemicals and toxins for longer than men. Federal and state law require separate facilities under both civil rights statutes and workplace condition laws and regulations:
- a. Gender neutral bathrooms that in reality result in women always going last create disparate treatment of women, in violation of Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. § 2000e, et seq) and the California Fair Employment and Housing Act (Cal. Gov't. Code §§ 12900-12996). See *Wedow v. City of Kansas City, Mo.*, 442 F.3d 661 (8th Cir. 2006) (holding that a jury is free to conclude that a City discriminated against female firefighters on the basis of sex under Title VII by requiring men and women in this male-dominated workplace to share the men's restroom). The City of Long Beach was successfully sued for failing to provide their female firefighters with separate bathrooms.<sup>2</sup>
  - b. California's Labor Code requires separate toilet facilities for each sex if there are five or more employees not of the same gender. Cal. Labor Code § 2350. Similarly, separate showers must be provided for men and women if there are five or more employees. CCR § 3366(f)(1). Federal regulations require one shower for each 10 employees of each sex who are required to shower during the same shift 29 CFR § 1910.141(d)(3)(ii).
- B. **Lactation Accommodations:** State and federal law require that employers provide designated spaces for lactation, and OCFA should ensure that it is complying with this law. Labor Code § 1031; 29 U.S.C.A. § 207(r)(1)(B).
- C. **Equipment and Uniforms Designed for Women**

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<sup>1</sup> This is not a comprehensive list of all changes that might be necessary, but highlights some of the key needs. An ongoing Women's Advisory Group could help formulate a more comprehensive set of changes.

<sup>2</sup> In the newspaper coverage of this suit in 2013, Orange County Fire Authority spokesperson Kris Concepcion inaccurately claimed that OCFA provided separate accommodations at all of its 71 stations.

<https://www.ocregister.com/2013/08/20/female-firefighters-win-discrimination-suit/>

## 2. Transparency and Objective Criteria for Advancement

Women are often passed over for trainings, placement and special positions that are valued in the OCFA. The process of selection for these positions is often opaque and based on subjective criteria or criteria not closely related to the requirements of the position. The OCFA should adopt transparent and objective criteria for everything from rookie placement (i.e. truck v. engine company); specialty assignments (AIROPS, Urban Search and Rescue, front line assignments, etc.), and promotions.

Hiring an equity officer would help the OCFA ensure that personnel decisions are being determined in a fair and non-discriminatory manner.

## 3. Creating a Supportive Environment for Women in the Fire Authority

Given how vastly underrepresented women are in the OCFA (roughly 1% of the force, which is less than the already dismal national average of 3.5%), the OCFA needs to take affirmative steps to ensure that women are supported at Orange County Fire Authority. The following steps could help create a more supportive environment for women:

- a. Establishing a Women's Advisory's Group that reports directly to the Chief on a regular basis;
- b. Establishing a Mentorship Program for women fire fighters;
- c. Consistent, public acknowledgements by leadership at the Fire Authority on the value of a diverse workforce;
  - As noted in Chief Fennessy's memo on a Mission Driven Culture: "leaders establish, guard, and reinforce day-to-day cultural norms and serve as a critical foundation of the internal accountability system that shapes judgment and behavior." It is imperative that leadership within the Fire Authority set the tone for the value that women bring to OCFA. As part of the cultural development key to a Mission Driven Culture, an emphasis *by leadership* on the importance of diversity to a Fire Department that can effectively serve the entire community is key.
- d. Adopting a recruitment plan to attract women to the OCFA;
- e. Establishing a culture of inclusion and professionalism in the department, with zero tolerance for "frat" behavior;
- f. Identify, track, and report on diversity in all ranks;
- g. Requiring Implicit Bias training for all staff at the OCFA.
  - UCLA Professor Corinne Bendersky, offers an implicit bias training specifically for fire departments, that has been implemented in the Los Angeles City Fire Department.



**Orange County Fire Authority**  
**AGENDA STAFF REPORT**

**Board of Directors Meeting**  
**June 23, 2022**

**Agenda Item No. 3B**  
**Discussion Calendar**

**Approval of Memorandum of Understanding with the**  
**Orange County Fire Authority Management Association**

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**Contact(s) for Further Information**

Lori Zeller, Deputy Chief  
Administration & Support Bureau

[lorizeller@ocfa.org](mailto:lorizeller@ocfa.org)

714.573.6020

Stephanie Holloman, Assistant Chief/  
Human Resources Director

[stephanieholloman@ocfa.org](mailto:stephanieholloman@ocfa.org)

714.573.6353

**Summary**

This item is submitted for approval of a Memorandum of Understanding (MOU) between the Orange County Fire Authority and the Orange County Fire Authority Management Association (OCFAMA), effective June 23, 2022.

**Prior Board/Committee Action**

Not Applicable.

**Recommended Action(s)**

Approve the proposed Memorandum of Understanding between the Orange County Fire Authority and the Orange County Fire Authority Management Association, for a term of June 23, 2022, to June 22, 2023.

**Impact to Cities/County**

Approval of the proposed MOU facilitates continued administrative management support services throughout the OCFA, in direct support of frontline suppression and prevention services to all communities served by OCFA.

**Fiscal Impact**

Increased Cost Funded by Structural Fire Fund:     \$0

Increased Cost Funded by Cash Contract Cities:     \$0

There is no fiscal impact to OCFA resulting from this MOU.

**Background**

The Meyers-Miliias-Brown Act provides for recognized employee organizations to meet with employers and represent public employees through the meet and confer process in matters relating to hours, wages and working conditions. Once agreement is reached, both parties jointly prepare a written MOU, which is presented to the governing body for approval.

OCFAMA currently represents 47 authorized/active positions. The previous MOU for OCFAMA included a term that ran from June 25, 2018 through June 24, 2021. The terms and conditions of

that MOU have continued as the status quo since the expiration date of June 24, 2021, while the parties have been engaged in negotiations for a successor MOU.

OCFA's negotiations for a successor MOU with OCFAMA began in early 2021, led by the OCFA's professional labor negotiator, Peter Brown/Liebert Cassidy Whitmore. The Board of Directors provided policy direction to Mr. Brown for use in negotiating this successor MOU.

We are pleased to report that a Tentative Agreement (TA) between the parties was reached as of June 3, 2022. OCFAMA has met with its membership to review the proposed terms, and formal ratification of the MOU by OCFAMA members was completed on June 14, 2022.

A summary of the significant deal points in the proposed MOU include:

- Term: June 23, 2022 to June 22, 2023
- Work Schedule Option: OCFAMA members may telecommute up to two days per week, based on upper management approval, and within the parameters of the existing OCFA telecommute policy, or be provided with 40 hours of paid administrative leave during the term of the one-year MOU. This provision for 40 hours of leave (in lieu of telecommute option) will not continue beyond the one year.
- Provisions for Use of Sick Leave: Existing MOU language allows OCFAMA members to use up to 20 hours of their accrued sick leave for personal business, and this new MOU change will increase the time that can be used for personal business from 20 hours to 60 hours. This provision will not continue beyond the one year.
- Reopener: The MOU may be reopened upon mutual agreement by both parties.

#### **Attachment(s)**

Proposed redlined version of Memorandum of Understanding (MOU) between the Orange County Fire Authority and the Orange County Fire Authority Management Association

*(Note: The attachment has been posted on OCFA's website in compliance with the Board's seven day posting requirement for labor documents and is also on file in the Office of the Clerk.)*

**Tentative Agreement - June 14, 2022**

**MEMORANDUM OF UNDERSTANDING  
20~~22~~18-202~~31~~ BETWEEN THE  
ORANGE COUNTY FIRE AUTHORITY  
AND  
ORANGE COUNTY FIRE AUTHORITY MANAGEMENT ASSOCIATION**



This is a consolidated Memorandum of Understanding that sets forth the terms of agreement reached between the Orange County Fire Authority and the Orange County Fire Authority Management Association for the period beginning June 2~~3~~5, 20~~22~~18 through June 2~~2~~4, 202~~31~~. All economic provisions go into effect either on the date specifically provided for in this MOU or on the first date of the pay period following Board approval if not specifically addressed.

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## ARTICLE I

### GENERAL PROVISIONS

#### **Section 1. Term**

The provisions of this Memorandum of Understanding ("MOU") shall commence on June 2~~35~~<sup>35</sup>, 20~~22~~<sup>22</sup> ~~48~~, unless another implementation date is specified within the MOU, and shall expire on June 2~~24~~<sup>24</sup>, 20~~23~~<sup>31</sup>. During the term of this MOU, the parties agree that if they mutually agree to reopen the MOU on any subject addressed in the MOU, they can do so. However, neither party is obligated to reopen as it requires a mutual agreement to reopen on subjects addressed in the MOU.

#### **Section 2. Recognition**

The Orange County Fire Authority Board of Directors ("Board") hereby recognizes the Orange County Fire Authority Management Association (hereinafter "Association" or "OCFAMA") as the exclusive representative of the employees in the unit of managers in employee classifications listed in Appendix A to this MOU.

#### **Section 3. Severance**

In the event that any provision of this MOU is declared invalid by a court, the parties agree that all other provisions not declared invalid shall remain in full force and effect.

## ARTICLE II

### COMPENSATION

#### **Section 1. Establishment of Base Salary and Base Salary Adjustments**

A. The base salaries for employees in the unit are set forth in the salary schedule of this MOU which is included as Appendix B of this MOU.

~~A. Compensation Increases~~

~~1. Effective on the first day of the pay period following Board approval of this MOU, employees covered by this Agreement shall receive a one and eighty-four one hundredths percent (1.84%) base salary increase.~~

~~2. Effective in the pay period including the date which is exactly one (1) year from the first salary increase, employees covered by the Agreement shall receive a two percent (2.0%) base salary increase.~~

~~3. Effective in the pay period including the date which is exactly two (2) years from the first salary increase, employees covered by the Agreement shall receive a two percent (2.0%) base salary increase.~~

B. Employees shall receive compensation on a salary basis at a biweekly rate within the range and step assigned to the class in which they are employed.

C. The Fire Chief may, in those instances where ~~he/she/they~~ determines that it is in the best interest of the Authority, approve additional individual salary increases, provided that the amount, when added to any other increase, shall not exceed fifteen percent (15%); however, no such increase shall cause an employee's salary to exceed the maximum of the applicable salary range.

D. If any employee is required to work an unusually large number of hours as a result of natural disasters and/or officially declared emergencies, such as floods, fires, storm conditions, high tides, etc., or due to extraordinary circumstances such as special projects, excessive call backs, etc., the Fire Chief, any Assistant Chief or Director may authorize additional compensation for such an employee or group of employees whom the Fire Chief, any Assistant Chief or Director determines should receive additional compensation. The rate of such compensation shall be equal to one-eightieth (1/80) of the employee's regular biweekly pay rate for the hours in excess of eighty (80) hours in a pay period. The Fire Chief, any Assistant Chief or Director may also authorize Management Administrative Leave (MAL) for members of the OCFAMA bargaining unit in lieu of compensation provided within this paragraph. MAL will not have cash value and cannot be cashed out (as permitted per agreement by Labor Code Section 227.3) at any time including at the end of employment. MAL can be used just like vacation by making a request to use it with each employee's supervisor.

E. No employee's base salary shall exceed the maximum of the salary range, except

pursuant to the Y-Rate provisions in Article II, Section ~~4~~5 of this MOU.

- F. No employee's salary shall be less than the minimum rate in the range assigned to the class in ~~which he/she is~~ they are employed.
- G. ~~The Fire Authority will conduct a classification and compensation study of the classifications in the OCFAMA which will be completed during the last year of the term of this MOU. The study will be conducted by a third party consultant. The parties agree to the following regarding the study:~~
- ~~1. It will include updates to job descriptions to reflect current job duties assigned and/or performed.~~
  - ~~2. It will compare wages of bargaining unit positions as compared to comparable classifications at the agencies surveyed in the study.~~
  - ~~3. It will conduct both an external wage analysis (as described in paragraph 2 above) and an internal wage analysis of positions in the same classification series.~~
  - ~~4. The Authority will provide the OCFAMA with a draft of the report of the study and the OCFAMA will have (thirty) 30 days to provide any response regarding the report.~~
  - ~~5. The Authority will review the OCFAMA's response to the draft report and consider that information in providing direction to the consultant conducting the study.~~
  - ~~6. The final report from the consultant will be provided to the OCFAMA.~~

~~The Parties agree that in conducting the classification and compensation study, one of the compensation elements of that study will be the inclusion of the employer's contribution to deferred compensation. The OCFA contribution will be five hundred dollars (\$500).~~

At any time, the Association may request that the Authority conduct a classification and/or compensation analysis of any of its bargaining unit classifications. The Authority is under no obligation to conduct the analysis and its decision as to whether to do so remains within its discretion and not subject to the filing of a grievance.

## **Section 2. Establishment of Base Salary for New Employees**

- A. The Assistant Chief/Human Resources Director may authorize the appointment of employees at any rate up to the middle of the salary range. Such appointment may be made only when, at the discretion of the Assistant Chief/Human Resources Director, there is a direct and measurable benefit to the Authority for such appointment.
- B. The Fire Chief may authorize the appointment of employees at any rate within the salary range. Such appointment may be made only when, at the discretion of the Fire Chief, there is a direct and measurable benefit to the Authority for such appointment.

## **Section 3. Base Salary on Promotion**

- A. Except as provided by paragraphs B and C of this Section, an employee promoted to a position in a class with a higher salary range shall receive the higher of the following rates:
1. The recruiting rate (i.e., the bottom of the salary range allocated to for the higher class); or
  2. A five and one half percent (5.5%) increase over the salary (base salary + if applicable, bilingual pay) received prior to promotion.
- B. Any employee who is promoted to a class from which the employee was previously reduced without a salary decrease shall be placed at a salary rate no higher than the rate that the employee would have achieved if the employee had remained in the class to which ~~he/she is~~ they are promoted and had demonstrated at least standard performance.
- C. Notwithstanding paragraph A of this Section, an employee who is promoted may receive a salary increase of up to fifteen percent (15%) if authorized by the Fire Chief upon recommendation of the Assistant Chief/Human Resources Director.

#### **Section 4. Base Salary on Reassignment or Reclassification**

The base salary of an employee who is reassigned or whose position is reclassified shall be determined as follows:

- A. If the position is reassigned or reclassified to a class with the same salary range, the base salary of the employee shall remain the same as in the former class.
- B. If the position is reassigned or reclassified to a class with a higher salary range, the employee's compensation shall be moved to the higher range. The employee's initial base salary in the new higher range shall either remain the same (if it is already within the higher range) or be increased at the discretion of the Assistant Chief/Human Resources Director.
- C. If the position is reassigned or reclassified to a class with a lower salary range and the employee's current base salary exceeds the maximum of the new class, the base salary of the employee shall be "Y-rated" and thus maintained and not increased until the employee's base salary in the reassigned to or reclassified into position exceeds the employee's previous compensation. "Y-rate" shall mean a pay outside of the assigned salary range of a class. If the position is reassigned or reclassified to a class with a lower salary range and the employee's current base salary falls within the lower salary range, the base salary of the employee shall remain the same. If the employee is not at the top of their range, the date they are eligible for their next merit increase will not change.

#### **Section 5. Base Salary on Reemployment**

- A. A person who is reemployed in the bargaining unit who was a non-probationary employee when ~~he/she/they~~ left employment at the Authority may, upon approval of the Assistant Chief/Human Resources Director, be appointed at a rate higher than the recruiting rate, but no higher than the rate the person occupied at the time of separation.
- B. A retiree of the Authority may be reemployed for the maximum allowable time under the

law and may be appointed to the position at any rate on the salary range.

#### **Section 6. Working Out of Class Acting Pay**

~~Notwithstanding anything in this MOU to the contrary, when in the judgment of the Authority it becomes necessary or desirable to utilize the services of employees in capacities other than those for which they are regularly employed, the Authority may authorize and, if appropriate, fix an additional rate of compensation for such employees.~~

- ~~1. When an employee is temporarily assigned to a vacant higher-level position, the employee shall be granted Acting Pay equivalent to five and one half percent (5.5%) above their base rate of pay, or the top step of the classification to which the employee is temporarily assigned, whichever is less. Acting Pay is only applicable in the event of a position vacancy or long-term leave of absence.~~
- ~~2. An employee becomes eligible for Acting Pay once they have worked in excess of 80 continuous hours per calendar year during which the employee is required to perform the duties of the higher-level position. At the conclusion of the acting assignment, the employee's base salary shall be reduced to the salary the employee was previously receiving inclusive of any base salary increase provided to the unit as well as any merit increase (if applicable) the employee would have earned while they were acting.~~
- ~~3. An employee who was not at the top of their salary range when temporarily assigned to the higher classification shall maintain their merit increase eligibility date in their regular lower classification. If the employee is granted a merit increase in the lower class, their Acting Pay shall be adjusted in accordance with Section 7 of this Article.~~
- ~~4. Acting Pay shall not exceed a period of one (1) year.~~

#### **Section 7. Annual Merit Review Program**

A. The Annual Merit Review Program establishes the award of performance salary increases to eligible employees. The Annual Merit Review Program shall be administered as follows:

1. The annual performance rating period shall be August 1 through July 31.
2. Employees may be rated "Substandard," "Standard," or "Above Standard."
3. Performance salary increases shall be awarded as follows:

Rating	Performance Salary Increase
Substandard	None
Standard	2.75% increase not to exceed the top of the salary range
Above Standard	5.5% increase not to exceed the top of the salary range

4. Performance salary increases shall be effective on the first day of the first pay period that includes September 1, regardless of the date the reviews are completed. The following dates reflect the effective pay period as described in this provision:

Performance Salary Increase Effective Date	Pay Period #
August <del>31, 2018</del> <u>26, 2022</u>	19
<del>August 30, 2019</del>	<del>19</del>
August <del>28, 2020</del> <u>25, 2023</u>	19

5. Performance salary increases within a range shall not be automatic. They shall be based upon job performance and granted only upon the affirmative recommendation of the employee's supervisor with the approval of the next level supervisor.

**B. Eligibility for Annual Merit Review Program**

1. Except as provided in B.2 below, all employees are eligible to receive performance salary increases through the Annual Merit Review Program.
2. An employee hired or promoted into a classification in this unit on or after March 1 shall not be eligible to receive a performance salary increase during ~~his/her~~their first performance rating year period of employment or promotion. Such employees shall be eligible for performance salary increases the next subsequent performance rating year period.
3. Part-time employees (a regular, limited-term, or probationary employee who, upon hire or starting in the position, is reasonably expected to average at least twenty (20) hours of service per week) shall be eligible for performance salary increases upon completion of two thousand eighty (2,080) hours of employment. Performance salary increases shall be effective the first day of the pay period following the completion of said period.

**C. Merit-Based Contribution to 401(a) Deferred Compensation for Employees at the Maximum of their Salary Range**

For employees in the Unit who are at the maximum of their salary range, they shall be eligible to receive a merit-based contribution to their 401(a) deferred compensation account. Eligibility for this deferred compensation contribution will be assessed based on performance evaluations during the evaluation cycle of August 1 to July 31. ~~The first rating period where employees will be eligible for this contribution will be August 1, 2017 through July 31, 2018 with the first contributions made in January 2019.~~ Eligibility to receive a contribution will be based on the following:

1. Employees must be at the maximum of their salary range at the time they receive their annual performance evaluation.
2. To be eligible to receive the merit based deferred compensation contribution, employees must receive a rating of at least "standard" as the overall rating on their

annual performance evaluation.

3. Employees who qualify for the merit based contribution to their deferred compensation account will receive a contribution of five hundred dollars (\$500).
4. Employees at the maximum of their salary range are eligible to receive the merit based contribution to their deferred compensation account each year after receiving their annual performance evaluation. The deferred compensation contributions will be made in the first pay period of January in the following year.

## **Section 8. Bilingual Pay**

- A. Employees who are eligible for bilingual pay as set forth below, shall receive an additional thirty (30) cents per hour up to a maximum of forty (40) hours per FLSA workweek (approximately fifty-two dollars (\$52) per month) for all hours actually paid.
  1. An employee must be conversant in one (1) of the pre-designated languages to qualify to receive bilingual pay:
    - Spanish
    - Vietnamese
    - Korean
    - American Sign Language
    - Chinese/Mandarin/Cantonese
  2. Other languages may qualify on a case-by-case basis.
  3. The employees must be approved by the Assistant Chief/Human Resources Director, or their designee -per AM SOP 103.02.
- B. An employee shall not be eligible to receive ~~more than one (1) type of~~ bilingual pay for more than one language at the same time~~concurrently~~.
- C. Bilingual pay shall be considered part of base pay for employees receiving workers' compensation benefits and be considered as part of the employee's base pay if the employee is entitled to receive ~~his/her~~their compensation per any other provision of law.~~.~~
- D. A bilingual employee may be called upon to speak or translate a second language at any time, as Authority needs dictate.
- E. An employee who is receiving bilingual pay and no longer wishes to use ~~his/her~~their bilingual skills may make a request to the Assistant Chief/Human Resources Director to no longer be required to use those skills and no longer receive the pay. The request shall be made in writing to the Assistant Chief/Human Resources Director who shall consider it according to:
  1. Authority need,
  2. Availability of a qualified replacement; and

3. Availability of another suitable assignment for the requesting employees.

## **Section 9. Deferred Compensation**

An employee may, at ~~his/her~~their request, participate in the Authority's 457(b) Deferred Compensation Plan. This plan is one hundred percent (100%) employee funded.

## **Section 10. Work Schedules**

A. Employees may be assigned to one of the following standard work schedules:

1. 9/80 – that consists of eight (8), 9-hour (nine hour) workdays and one (1) 8-hour (eight hour) hour workday in the two-week pay period. The work schedule shall include two consecutive calendar days off in the workweek during which the employee works the eight hour alternating regular day off and three consecutive calendar days off in the workweek during which the employee's alternating regular day off is an off day. For this work schedule, each employee's FLSA work-week shall end exactly four hours after the start time of the employee's Friday shift.
2. 5/40 – that consists of five (5) 8-hour (eight-hour) workdays in a workweek. Each workweek shall contain two (2) consecutive calendar days off work. The employee's FLSA workweek shall begin at 12:00 a.m. on Sunday and shall end the following Saturday at 11:59 p.m.
3. 4/10 – that consists of four (4) 10-hour (ten-hour) workdays in a workweek. Each workweek shall contain three (3) consecutive calendar days off work. The employee's FLSA workweek shall begin at 12:00 a.m. on Sunday and shall end the following Saturday at 11:59 p.m.
4. Employees may be able to telecommute per the Authority's telecommuting policy if approved.

B. The Authority reserves the right to implement other alternate work schedules in emergencies or to authorize alternate work schedules requested by OCFAMA, if the needs of the operation would be better served. The Authority shall discuss with the OCFAMA any proposed changes in work hours or existing work schedules before such changes are put into effect. Whenever practicable, the Authority shall provide written notification of such proposed changes to the OCFAMA at least fourteen (14) calendar days before such changes are put into effect.

C. As employees who are exempt from overtime, employees in this Unit may be provided with the ability to flex their work hours within a workweek. For example, an employee may work twelve (12) hours in one day and may be permitted to work fewer hours in another day during the workweek.

D. The provisions of this Section 10D are effective until June 22, 2023. Except as provided below, employees in this unit are provided the ability to telecommute up to two workdays (one or two workdays) in a workweek as described in the OCFA's Telecommuting Policy (Policy) dated September 1, 2021. Employees who are designated as eligible to telecommute will either be eligible to telecommute one or two workdays per week based

on the “Position Eligibility Criteria” or “Employee Eligibility Criteria” as described in the Policy.

An employee who is designated as eligible to telecommute two (2) workdays per week must make an election to either telecommute or receive an allotment of Paid Annual Leave (PAL) in addition to the PAL time referenced in {Article 5, Section 10} as follows:

1. An eligible employee who elects to telecommute two (2) workdays per week shall telecommute two (2) workdays per week during the term of the MOU and shall not accrue any additional PAL; and
2. If such employee elects to telecommute one (1) workday per week, they shall telecommute one (1) workday per week and shall also receive 20 hours of additional PAL during the term of this MOU.

An employee who is designated as eligible to telecommute one (1) workday per week shall make an election to either telecommute (and also receive 20 hours of additional PAL) or not telecommute and receive 40 hours of additional PAL during the term of the MOU.

If an eligible employee who elects to telecommute (either one (1) or two (2) workdays per week) changes their mind during the term of this MOU, they will begin to accrue additional PAL prorated to the term remaining on the MOU at a rate of 1.54 hours per pay period. If an eligible employee who elected to receive additional PAL, chooses to telecommute during the term of the MOU, they shall be eligible to telecommute (either one (1) or two (2) days depending on the number of days they have been deemed eligible). In addition, if, at the time they choose to telecommute they have used more PAL hours than they have earned (based on accrual of 1.54 hours per pay period) they will be required to designate which one of their accrued leaves they want the OCFA to reduce to pay back for the excess PAL used to date during the term of the MOU.

An employee designated as ineligible, either based on “Position Eligibility Criteria” or “Employee Eligibility Criteria” as described in the Policy, shall receive an additional 40 hours of PAL.

For employees who are ineligible to telecommute, the additional 40 hours of PAL shall become available for use effective following the adoption of this MOU, for all employees who have provided notification to HR/Payroll of their ineligible status, along with confirmation by their Department Head of the ineligible status. For employees who are eligible to telecommute, but who elect to receive and use 40 hours of additional PAL time during the term of this MOU, the PAL time shall become available for use the pay period following adoption of this MOU and upon receipt (by the Human Resources Department) of the employee’s election to receive additional PAL time.

Should an employee who is approved to telecommute (one or two) workdays subsequently become ineligible during the term of this MOU (i.e., through promotion or organizational needs), they shall receive an amount of additional PAL hours prorated to the term remaining on the MOU at a rate of 1.54 hours per pay period.

## ARTICLE III

### BENEFITS

#### **Section 1. Retirement**

##### A. Eligibility

Eligible employees in the Unit are included in the Orange County Employees Retirement System (OCERS) as determined by their date of entry into eligible service.

##### B. Final Compensation for Legacy Members of OCERS

“Final Compensation” for Legacy Members of OCERS, in accordance with Government Code Section 31462(a), means the average annual compensation earnable by a member during any three (3) years elected by a member at or before the time he or she files an application for retirement, or, if he or she fails to elect, during the three (3) years immediately preceding his or her retirement. If a member has less than three (3) years of service, his or her final compensation shall be determined by dividing his or her total compensation by the number of months of service credited to him or her and multiplying by twelve (12).

##### C. Cost of Living Adjustments

Members’ normal cost-of-living contributions shall be adjusted subsequent to and in accordance with actuarial recommendations adopted by the Board of Retirement and the Authority Board.

##### D. Retirement Formulas and Employee Contributions

###### 1. Employees Hired Prior to December 1, 2012

- a. Retirement Formula: These employees receive the 2.7% at age 55 formula in accordance with Government Code Section 31676.19.

Employees shall pay their maximum employee contribution based on age of entry into OCERS, including any increases to the maximum employee contribution as calculated by OCERS.

###### 2. Employees Hired by the Authority after December 1, 2012 ~~with Reciprocal Retirement Benefits~~ Are Legacy Members under OCERS

- a. Retirement Formula: These employees receive the 2% at age 55 formula in accordance with Government Code Section 31676.16.

Employees shall pay their maximum employee contribution based on age of entry into OCERS, including any increases to the maximum employee contribution as calculated by OCERS.

3. Employees Hired by the Authority on or after January 1, 2013 with No Reciprocal Benefits
  - a. The retirement formula is the 2.5% at age 67 retirement formula per Government Code Section 7522.20(a), utilizing the average three (3) highest years of compensation per Government Code Section 7522.32. Pensionable compensation and other pension related conditions are governed by the provisions of PEPRA and the OCERS Board of Retirement.
  - b. Employee Contribution: Such employees shall pay one half the normal cost as defined by the PEPRA.

## Section 2. Insurances

### A. CalPERS Health Care

1. The Authority ~~shall continue to maintain its health contract with provides health insurance benefits to employees through the California Public Employees' Retirement System (CalPERS) for employees' health care coverage through the Public Employees' Medical and Hospital Care Act. (PEMHCA).~~
2. The Authority shall contribute towards the payment of health care for employees' health care coverage. premiums on behalf of each eligible active employee and each eligible retiree, an equal contribution as set forth in California Government Code 22892 of the Public Employees' Medical and Hospital Act of the (PEMHCA). That amount is equal to the PEMHCA statutory minimum which is \$149 for 2022, and a yet undetermined amount for years following 2022. Eligible active employees include the following:
  - i. Full-time regular, limited-term or probationary employees who, upon hire or starting in the position, are reasonably expected to average thirty (30) or more hours of service per week [i.e. one hundred thirty (130) hours per month]; and
  - ii. Part-time regular, limited-term or probationary employees who, upon hire or starting in the position, are reasonably expected to average at least twenty (20) hours of service per week.
- 2.3. The Authority shall provide a Section 125 Cafeteria Plan for active eligible employees and pay the following amounts for employees' health care coverage and other benefits:
  - a. For 2022~~18~~, full-time employees shall receive a monthly cash allotment in the amount of ~~one thousand seven hundred and sixty-eight dollars and eighty-two cents (\$1,768.82)~~ two thousand one hundred and ten dollars and sixty-seven cents (\$2,110.67). This amount shall be adjusted annually each January in the amount equal to the average percentage increase of the CalPERS Health Plans for that year. The average percentage increase shall be computed by averaging the

increase in the CalPERS Health Plans in which the employees are eligible to participate, with the exclusion of the Plan with the highest premium.

a.b. Part-Time employees shall receive fifty-percent (50%) of the amount provided in paragraph (a) above.

~~These amounts are inclusive of the PEMHCA statutory minimum amount described above. The employee may elect to contribute the entire value to his/her health care premium or allocate a portion of the value to other benefits offered under the Cafeteria Plan. If the employee elects to allocate part of the value to other benefits, any unpaid balance of the employee's health care premium shall be deducted from the employee's paycheck.~~

b.c. Eligible Opt-Out Arrangement: Upon providing reasonable evidence of alternative coverage, as required by the ACA's Eligible Opt Out Arrangement rules (below), a full-time or part-time employee as defined in Section 2.A.2 of this Article, shall be entitled to receive the monthly cash allotment in taxable cash.

Pursuant to the Affordable Care Act (ACA) Employer Mandate "affordability" determination, an Eligible Opt-Out Arrangement requires the following for employees who opt-out of employer-provided health coverage and receive cash in lieu:

1. Employee must provide reasonable evidence that the employee and each member of the employee's expected tax family (individuals the employee expects to claim personal exemption deduction) have or will have minimum essential coverage (other than coverage in the individual market, whether or not obtained through Covered California) during the period of coverage to which the opt-out arrangement applies;
2. The opt-out payment may not be made if the employer knows or has reason to know that the employee or any other member of the employee's expected tax family does not have or will not have the alternative coverage;
3. The evidence of alternative coverage must be provided every plan year to which the eligible opt-out arrangement applies; and
4. The reasonable evidence, which can be a simple attestation by the employee, must be provided no earlier than a reasonable period of time before the plan year begins.

4. The Authority may reopen negotiations if there are changes that occur in connection with the Affordable Care Act.

#### A.B. Health Plan Enrollment

1. Newly hired eligible employees must enroll for coverage in health plans within the first sixty (60) days of employment. If the employee fails to enroll within the first sixty (60)

days of employment, ~~he/she~~they must either wait until the next open enrollment period or ninety (90) days after submission of a late enrollment form. Health plan coverage shall become effective the first day of the month following submission to the Authority of the Health Benefits Enrollment form.

2. Employees who are terminated due to disciplinary action or reduction in force, or who voluntarily resign from employment, may continue their health care coverage until the end of the month following the month in which the employee is terminated. However, the Authority's contribution towards the employee's health care coverage the month following termination shall be in accordance with California Government Code Section 22892, i.e., the PEMHCA statutory minimum amount.
3. An employee shall be given the opportunity to enroll in a medical plan or to change medical plans on the effective date of ~~his/her~~their retirement.
4. In all health plans, the Authority shall provide a minimum one (1) month period, each fiscal year, for open enrollment of employees and employees' dependents.
5. Two (2) full-time employees married to each other, or in a registered domestic partnership, who elect coverage in the same health plan shall be enrolled as employee and dependent. Such employees shall have the full cost of coverage for employee and dependents paid by the Authority. Employees shall not, however, be enrolled simultaneously in an Authority health care plan and a health plan administered by the Orange County Professional Firefighters Association, Local 3631, as either an employee or dependent.
6. The Authority may re-open negotiations on the subject of the Affordable Care Act or its impacts.

#### B.C. Other Insurance Coverage

1. The Authority shall provide the following to all full-time employees:
  - a. Short-term disability insurance coverage, at no cost to the employee, after sick leave is exhausted, sixty (60) percent of salary per month for up to one (1) year for certified non-occupational injury or illness in accordance with the plan benefits schedule. Coverage shall also provide for continuation of the Authority's share of premiums for health, dental, vision, and life insurance benefits while the employee is on Official Leave for Non-occupational Disability for up to one (1) year from the effective date of disability.
  - b. Long-term disability insurance coverage, at no cost to the employee, to provide up to sixty percent (60%) of salary per month in accordance with the plan benefits schedule.
  - c. Life insurance and accidental death and dismemberment insurance, at no cost to the employee, shall be provided at amounts based upon the employee's annual base salary, rounded to the next closest ten thousand dollars (\$10,000) and adjusted annually on each January 1, if required. Employees shall have the option

- to purchase additional life and accidental death and dismemberment coverage, including dependent coverage.
- d. Dental and orthodontia insurance coverage, at no cost to the employee, for the employee and dependents. Part-time employees shall have the option of purchasing dental insurance for the employee and ~~his/her~~their dependents by paying one-half (½) the monthly rate paid by the Authority for full-time employees, provided the employee's normal workweek consists of at least twenty (20) hours.
  - e. Vision care insurance coverage, at no cost to the employee, for the employee and dependents.

#### ~~C. Premium Only Plan~~

- ~~1. The Authority shall administer a Premium Only Plan (POP) that shall allow an employee to pay for health insurance premiums as permitted in the Internal Revenue Code. Under the POP, an employee's gross taxable salary shall be reduced by the amount of his/her share of the premium costs of Authority-provided health insurance coverage.~~

#### D. Retiree Medical Insurance Grant ("Defined Benefit Plan")

##### 1. Retiree Medical Insurance Grant

- a. The Authority shall administer a Retiree Medical Insurance Grant plan, which will also be referred to herein as a "defined benefit plan" for employees who have retired or terminated from Authority service and who meet the eligibility requirements set forth in paragraph ~~DE~~.2, of this Section.
- b. Upon paid Authority retirement, an eligible retiree who has enrolled in a "qualified health plan" (as defined in the Plan) or in Medicare as stated in the Plan and required by the "qualified health plan," shall receive a Retiree Medical Insurance Grant.
- c. An eligible former employee who terminated from Authority service prior to retirement, who is fifty-five (55) years of age or older and who is enrolled in a recognized health plan or Medicare as stated in the Plan and required by the "recognized health plan," shall receive a Retiree Medical Insurance Grant.
- d. The Retiree Medical Insurance Grant may be applied only towards the cost of retiree and dependent coverage in a "qualified health plan", as reimbursement for a portion of the cost of eligible former employee and dependent coverage in a recognized health plan and/or Medicare premiums as provided in Sections ~~DE~~.1.d.i, ~~DE~~.1.d.ii, and ~~DE~~.1.d.iii of this Section.
  - i. Effective January 1, 20~~22~~18, the Retiree Medical Insurance Grant shall be an amount based on ~~twenty six dollars and six cents (\$26.06)~~ thirty dollars and fifty-nine cents (\$30.59) per month for each full year of service to a maximum of ~~six hundred fifty one dollars and fifty cents (\$651.50)~~ seven hundred sixty four dollars and seventy five cents (\$764.75) per month. On January 1 of

each calendar year the amount of such Retiree Medical Insurance Grant shall be adjusted by the average percentage increase in Authority health plan premiums no later than the effective dates of such increase, not to exceed five percent (5%) per year. In no case shall the Retiree Medical Insurance Grant exceed the actual cost of the health insurance and/or Medicare premiums.

- ii. All employees who retire from the Authority and become eligible for a Retiree Medical Insurance Grant shall be provided a one (1) time opportunity of at least thirty (30) days to enroll in an Authority “qualified health plan,” and shall have ninety (90) days after attaining age sixty-five (65) to enroll in Medicare. Should a retiree fail to enroll in either a “qualified health plan” or Medicare during the aforementioned periods or should ~~he/she~~ they terminate coverage or fail to make necessary payments, the retiree and dependents shall forfeit any right to a Retiree Medical Insurance Grant.
- iii. All former employees who did not retire from the Authority and who are eligible for a Retiree Medical Insurance Grant shall not receive the Grant until such employees reach age fifty-five (55) and request the Authority to commence distribution of the Grant no later than ninety (90) days from the former employee’s fifty-fifth (55<sup>th</sup>) birthday. Upon such request, the eligible former employees must show proof of enrollment in a recognized health plan. A reimbursement for a portion of the cost of premiums will be provided to the eligible former employees in accordance with the Retiree Medical Plan provisions. The eligible former employees will be required to provide the Authority with a copy of the premium bill and cancelled check or other recognized proof of payment for reimbursement.

## 2. Eligibility Requirements for Retiree Medical Insurance Grant

- a. Retirees must be actively retired from the Authority and receiving a monthly retirement allowance from the Orange County Employees Retirement System (OCERS). An eligible former employee must be at least age fifty-five (55) and enrolled in a recognized health plan.
- b. Only employees hired before January 1, 2007 shall be eligible to participate in the Retiree Medical Insurance Grant Plan.
- c. A retiree or eligible former employee must have retired or terminated employment with the Authority with at least one (1) year of service (2,080 hours), except as provided in Sections ~~DE~~.2.c.i, ii, and iii of this Section.
  - i. A retiree of the Authority who receives a service-connected disability retirement from OCERS shall be eligible for a Retiree Medical Insurance Grant equal to either ten (10) years of service or actual years of service, whichever is greater.
  - ii. A retiree who receives a non-service connected disability retirement shall be eligible for a Retiree Medical Insurance Grant based on actual years of

service.

- iii. A separated employee who is less than fifty-five (55) years of age or is under normal retirement age who has requested a service or non-service connected disability retirement shall not be eligible to receive the Retiree Medical Insurance Grant until a determination of disability status is made by the Board of Retirement.
- d. All eligible retirees, eligible former employees and enrolled dependents who are age sixty-five (65) or older must be enrolled in Medicare Part B in order to be eligible for the Retiree Medical Insurance Grant. All eligible retirees, eligible former employees and dependents who are entitled to Medicare Part A coverage without a premium must be enrolled in Medicare Part A to be eligible to receive the Retiree Medical Insurance Grant.
- e. Deferred Retirement
  - i. An employee who, upon separation from the Authority, is eligible for paid retirement and elects deferred retirement must defer participation in the Retiree Medical Insurance Grant until such time as ~~he/she~~they becomes an active retiree. However, in order to be eligible for health care coverage provided by CalPERS, retirement must not be deferred for more than one hundred twenty (120) days after the employee separates from Authority Service.
  - ii. An employee with at least one (1) year of service (2,080 hours), who is not eligible for paid retirement at the time ~~he/she~~they separates from Authority service and elects deferred retirement status shall not become eligible for participation in the Retiree Medical Insurance Grant until ~~he/she~~they becomes fifty-five (55) years of age.
- f. For purposes of this Section, a full year of service shall mean those regular hours of Service the employee worked as a regular, limited-term and/or probationary employee. Two thousand eighty (2,080) regular hours, shall equal one (1) full year of service.

### 3. Employee Contribution

- a. All employees hired before January 1, 2007 shall contribute four percent (4%) of their base salary, through payroll deduction to the Authority to be applied to the Plan.

### 4. Survivor Benefits

- a. A surviving dependent who qualifies for a monthly retirement allowance shall be eligible for fifty percent (50%) of the Retiree Medical Insurance Grant authorized for the retiree.
- b. A surviving eligible retiree or eligible former employee who qualifies for a monthly retirement allowance and who was married to a retiree or eligible former employee

who was also eligible for a Retiree Medical Insurance Grant shall receive the survivor benefit described in Section E.5.a of this Section, or ~~his/her~~ their own Retiree Medical Insurance Grant, whichever is greater. Such retiree shall not be eligible for both Retiree Medical Insurance Grants.

5. Agreement to Reopen Labor Negotiations Re: the Retiree Medical Grant

a. The OCFA and the OCFAMA have agreed that either may reopen labor negotiations (during the term of their MOU) on the topic of retiree medical grant if the subject is being discussed with any other bargaining unit at the OCFA.

6. During the term of this 20~~22~~<sup>24</sup>-202~~31~~<sup>34</sup> MOU, the Authority agrees to participate in a Joint Labor Management Committee with the Association to discuss issues regarding the Retiree Medical, classifications (e.g., job descriptions) and any other issue the parties wish to discuss. ~~Insurance Grant. Either party may provide the other with information about the Grant.~~ Neither party is obligated to engage in labor negotiations regarding topics addressed in this MOU~~the grant~~.

E. Defined Contribution Retiree Medical Plan

1. The Authority will provide employees hired on or after January 1, 2007 a "defined contribution" plan.
2. These employees are required to contribute four percent (4%) of base salary to this plan.
3. Employees hired before January 1, 2007 shall not be eligible to participate in this plan. Eligibility for plan participation is based on the employee's most recent date of hire with the Authority.

F. Physical Examination

1. Full-time employees are eligible to receive a voluntary annual physical examination by an Authority designated physician at no cost to the employee.

G. Optional Benefit Plan (OBP)

1. The Optional Benefit Plan is a cash allotment which allows employees the option to take the benefit as taxable cash and/or apply the allotment to the cost of non-taxable benefits as described in the Authority's Section 125 Cafeteria Plan, based on personal preferences.

~~1.2.~~ Each eligible employee shall be entitled to select benefits ~~from those listed below~~ at a cost to the Authority not to exceed one thousand nine hundred dollars (\$1,900) for each calendar year.

~~2.3.~~ The purpose of the OBP is to provide options to individual employees to best meet the needs of themselves and dependents while relieving the employee of external influences that might impair ~~his/her~~ their performance.

~~OBP options include the following two (2) benefits categories:~~

~~1. Cash (taxable);~~

~~2. Health/accident;~~

~~i. Health programs (employee and/or dependents) such as smoking cessation, stress reduction, and physical, mental, and/or emotional health-related counseling for individual and/or family not covered or partially covered through existing plans;~~

~~ii. Employee's share of Authority health insurance premiums (employee and/or dependents). Also includes payment of Accidental Death and Dismemberment coverage for employee and dependents available through the Authority;~~

~~iii. Health care, vision, and/or dental (employee and/or dependents) excluded or partially excluded under the Authority's insurance plans. Examples of items covered under this provision include: deductibles, eye care, lenses, and frames.~~

4. To be eligible, each employee must file an Intent to Participate form by December 31 each year and in accordance with provided instructions. For new employee enrollment, the amount available to the employee shall be prorated based on month(s) of eligibility. An employee's designations are irrevocable, unless ~~he/she~~ has they have a change in family status. Eligible expenses must be incurred during an OBP period in which an employee is eligible and has sufficient fund balance to cover the expense. ~~Claims may be filed at any time during the plan period, and all claims must be filed no later than ninety (90) days following the close of the OBP period. Upon approval and required written authorization, payment shall be made.~~
5. Eligibility – an employee is eligible to receive the OBP, provided ~~he/she is~~ they are continuously employed in a full-time capacity. Employees hired or promoted after the commencement of an OBP shall be eligible for the OBP on a prorated basis the first day of the month following the twenty-eighth (28<sup>th</sup>) day in a position in the Unit. Employees working in a job-sharing assignment in a full-time (regular, probationary, or limited-term) position shall be eligible to receive the OBP in proportion to each employee's regularly scheduled hours.
6. Any portion of the optional benefit not incurred within the OBP period shall remain Authority funds.
7. ~~Reimbursement claims shall be made via debit card transaction or mobile application or on forms authorized by the Human Resources Director. Only claims that are accompanied by complete documentation of an eligible expense during the OBP period will be approved.~~

#### H. Flexible Spending Accounts

1. Medical Flexible Spending Account - The Authority will administer a Medical Flexible Spending Account that will allow employees to contribute pre-tax dollars into an account that can be used throughout the year on qualified medical, dental, and vision expenses for both the employee and their dependents.
- 3.2. Dependent Care Flexible Spending Account - The Authority will administer a Dependent Care Flexible Spending Account that will allow employees to receive reimbursement of eligible, work-related dependent care expenses using pre-tax dollars.

## ARTICLE IV

### REIMBURSEMENT PROGRAMS

#### **Section 1. Mileage Reimbursement**

- A. Subject to the current vehicle rules and regulations established by the Board, an employee who is authorized by the Fire Chief to use a private automobile in the performance of ~~his/her~~ their duties shall be paid for each mile driven in the performance of ~~his/her~~ their duties during each monthly period as provided below:
1. The reimbursement rate shall be the Internal Revenue Service Standard Mileage Rate for the Business Use of a Car.
- B. An employee who is required by the Authority to furnish a privately-owned vehicle for the performance of ~~his/her~~ their duties on Authority time shall receive a minimum of ten dollars (\$10) in any month in which the actual mileage reimbursement would otherwise be less than ten ~~(\$10)~~ dollars (\$10). The minimum shall not apply in any month:
1. In which the employee has not actually worked eighty (80) hours;
  2. Unless the employee claims the ten dollar (\$10) minimum and the Authority certifies that the employee was required to use a privately-owned vehicle on Authority business.

#### **Section 2. Personal Property Reimbursement**

- A. Employees shall be reimbursed for the repair or replacement of personal property damaged in the line of duty without fault of the employee. The amount of reimbursement for articles of clothing shall be the depreciated value based on the age and condition of the article. The amount of reimbursement for other personal property covered by this provision shall be the actual replacement or repair value, whichever is lower, except that the reimbursement on a watch shall not exceed its functional value and the limit on eyeglasses shall be the cost of lenses, plus the cost of basic frames.

#### **Section 3. Tuition Reimbursement**

- A. The tuition reimbursement program in this Unit is designed to:
1. Enhance professional job skills; and
  2. Encourage ongoing professional development.
- B. Eligibility of courses shall be generally based on the provisions of Standard Operating Procedure HR.02.09 (Employee Tuition Reimbursement Part 1, Article III, Section 2 of the Personnel and Salary Resolution). ~~Approval for other courses such as certificate programs, seminars, and workshops shall be subject to the approval of the requesting employee's Executive Manager.~~

- C. ~~For approved college or other approved graded courses (approved coursework is defined in the OCFA SOP regarding Tuition Reimbursement), reimbursement shall require a minimum final grade of "C" or better for undergraduate courses and a minimum final grade of "B" or better for graduate courses. For courses that are not graded, reimbursement shall require proof of successful completion. No reimbursement shall be made for audited or incomplete courses.~~
- D. Reimbursement from the Authority shall not exceed two thousand dollars (\$2,000) in any fiscal year and shall apply to tuition, registration, lab fees, books, and approved related expenses; and shall be processed according to ~~the Authority's tuition reimbursement process~~SOP HR.02.09. Equipment purchases are not covered under the program.
- E. Reimbursement received from other sources for expenses covered in this Section shall be deducted before the Authority provides tuition reimbursement.
- F. Employees are also eligible to be reimbursed for job-related licenses and certifications. Reimbursement may include expenses related to the costs necessary to obtain and/or maintain the license or certification subject to the following:

The license or certification cannot be a minimum qualification for the employee's job classification.

The decision to reimburse an employee for any costs related to obtaining or maintaining such a certification or license is subject to the discretion of the employee's Department Head~~Director or Assistant Chief~~ whose decision is final.

A decision to not reimburse an employee for costs related to obtaining or maintaining a particular job-related license or certifications is not subject to filing a grievance.

## ARTICLE V

### LEAVES OF ABSENCE

#### **Section 1. Sick Leave**

A. Accumulation of Sick Leave – shall be in accordance with the following schedule:

<u>HOURS OF CONTINUOUS SERVICE</u>	<u>HOURLY ACCRUAL RATE</u>
<u>1 through 6,240.00 regularly scheduled hours</u>	<u>0.0347 hours for each regularly scheduled work hour paid</u>
<u>6,240.01 or more regularly scheduled hours</u>	<u>0.0462 hours for each regularly scheduled work hour paid</u>

<u>YEARS OF COMPLETED CONTINUOUS SERVICE</u>	<u>HOURS OF CONTINUOUS SERVICE</u>	<u>HOURLY ACCRUAL RATE</u>	<u>ANNUAL ACCRUAL</u>
<u>From date of employment but less than 3 years</u>	<u>1 through 6,240.00 regularly scheduled hours</u>	<u>0.0347 hours for each regularly scheduled work hour paid</u>	<u>Approximately 72 hours per year</u>
<u>After 3 years</u>	<u>6,240.01 or more regularly scheduled hours</u>	<u>0.0462 hours for each regularly scheduled work hour paid</u>	<u>Approximately 96 hours per year</u>

- B. When determined to be in the best interest of the Authority, the Fire Chief may approve up to forty (40) hours of sick leave be provided to a newly appointed employee.
- C. Sick Leave Earned – shall be added to the employee's sick leave accumulation account upon the completion of the pay period with no credit to be applied during the progress of the pay period or for a portion of the pay period during which the employee terminates Authority service.
- D. Extra Help OCFAMA Employees – After thirty (30) calendar days of employment, extra help employees become eligible to earn three (3) days of paid sick leave annually. Extra help employees shall be eligible to apply sick leave to absences beginning on the ninetieth (90<sup>th</sup>) day of employment. Unused paid sick leave is not carried over from one year to the next. The annual paid sick leave allotment will be credited to the extra help employee's sick leave accumulation account annually on the employee's hire date. When an extra

help employee separates employment and is rehired, ~~his/her~~ their rehire date will be used to determine when ~~he/she is~~ they are credited ~~his/her~~ their annual paid sick leave allotment.

#### E. Permitted Uses of Sick Leave

Sick leave may be applied to:

1. An absence necessitated by employee's personal illness, injury, or disability due to pregnancy or childbirth.
2. Medical and dental office appointments when absence during working hours for this purpose is authorized by the employee's supervisor.
3. Absence due to exposure to a contagious disease when quarantine is imposed by health authorities or when it is determined by a physician designated by the Authority that the presence of the employee on duty would endanger the health of others.
4. Absence from duty because the employee's presence is needed to attend to the serious illness of a member of ~~his/her~~ their immediate family. For purposes of this paragraph, immediate family shall mean spouse, registered domestic partner, parent, parent-in-law, ~~father~~, ~~father-in-law~~, ~~mother~~, ~~mother-in-law~~, step-parent, ~~brother~~, sister, sibling, ~~wife~~, ~~husband~~, child, step-child, grandparent, grandchild, step-grandchild, dependent adult or child for whom the employee is the legal guardian, or as otherwise defined by law.

For purposes of use of sick leave under this paragraph, employees are entitled to use up to one half of ~~his/her~~ their annual accrued sick leave for the illness/injury of immediate family.

- a. Extra help employees may also apply sick leave for themselves or an immediate family member for the preventative care or care of an existing health condition or for specified purposes if the employee is a victim of domestic violence, sexual assault, or stalking.
5. Illness while on paid vacation (this does not apply to Authority provided holidays) shall be charged to sick leave rather than vacation only under the following conditions:
  - a. The employee must notify ~~his/her~~ their supervisor within four (4) calendar days of the beginning of the illness or prior to the end of ~~their~~ ~~his/her~~ vacation, whichever is sooner, to request that ~~their~~ ~~his/her~~ illness on vacation be charged to sick leave.
  - b. The Authority shall be under no obligation to extend the vacation beyond the original scheduled vacation ending date.
  - c. Upon the employee's return to work, the employee must furnish the Authority with a certificate signed by a licensed physician, registered nurse, or recognized health care provider stating the period of sickness.

~~6.~~ Absence from duty because of personal business not to exceed twenty (20) working

hours during the fiscal year. This Section E.6 does not apply to extra help employees. For the term of this MOU (June 23, 2022 – June 22, 2023) employees in this unit may be absent from duty because of personal business for an additional forty (40) working hours for a total of sixty (60) working hours. These 40 additional working hours to be used for personal business shall sunset on June 22, 2023.

#### F. General Provisions

1. In any use of sick leave, an employee's account shall be charged to the nearest quarter hour.
2. An employee may be required to furnish a certificate issued by a licensed physician or registered nurse or other Authority-approved evidence of illness, injury, or medical or dental office calls when the department has notified the employee in advance of such a requirement or when the employee has been under the care of a physician.

#### G. Sick Leave Payoff

1. An employee shall receive sick leave payoff as follows:
  - a. **Upon Paid Retirement or Death:** An employee or the employee's estate shall be paid for a portion of the employee's unused sick leave in an amount computed as provided below:

<u>Years of Service</u>	<u>Percent of Unused Sick Leave Paid For</u>
Less than 5 years	None
5 but less than 10	25%
10 but less than 15	50%
15 but less than 20	75%
20 or more	100%

Years of service as used herein shall be the equivalent of full-time continuous service in a regular position. Employees who elect to take deferred retirement shall not be eligible for any benefits provided by this paragraph.

- b. **During Employment:** ~~For calendar year 2018 and 2019: Not more than once in each fiscal year, an employee who has accumulated unused sick leave in excess of two hundred eighty (280) hours shall, upon request, receive a payoff for up to one-third (1/3) of all his/her accumulated sick leave, provided that the remaining balance is not reduced below two hundred eighty (280) hours. The percentage of sick leave paid shall be computed based on years of continuous service in accordance with Section 1.G.1.a of this Article. The employee's sick leave balance shall be reduced by the total number of hours elected and approved for payoff by the employee prior to the application of the eligible percentage described in Section 1.G.1.a of this Article.~~

~~Effective for calendar year 2020 and every year thereafter:~~ By December 15 of each year ~~(starting on December 15, 2019 for cash out in 2020)~~, an employee who has accumulated unused sick leave in excess of two hundred eighty (280) hours

may do either of the following:

- i. Request that up to one-third of the balance above two hundred eighty (280) hours, but no more than the maximum permitted by IRS Code, be placed in to the employee's deferred compensation account either with the pay day for pay period 12 or pay period 26; or
- ii. Make an irrevocable election to cash out up to ninety-two (92) hours of accrued sick leave which will be earned in the following calendar year at the employee's base rate of pay. In the following year, the employee can receive the cash for the sick leave ~~he/she~~ they irrevocably elected to cash out in either two (2) separate increments of up to forty-six (46) hours each or one (1) increment of up to ninety-two (92) hours. The employee will be paid up to forty-six (46) hours on the pay day for pay periods 12 and 26 or the employee can elect to be paid up to ninety-two (92) hours on the pay period for pay period 26. However, at the time of cash out, the employee's sick leave balance cannot be reduced below two hundred eighty (280) hours. Therefore, if based on the employee's use of sick leave, cash out of sick leave would bring the employee's balance below two hundred eighty (280) hours, the employee will only receive cash for the amount of leave that exceeds two hundred eighty (280) hours.

In addition to the above, ~~starting in calendar year 2020,~~ an employee who has an "unforeseen emergency" (defined as an unanticipated emergency that is caused by an event beyond the control of the employee and that would result in severe financial hardship to the employee if early withdrawal were not permitted) shall be entitled to make a request to the ~~Assistant Chief/Director of~~ Human Resources Director for a ~~cash out payoff~~ of accrued sick leave. The amount of sick leave which may be ~~cash out paid off~~ is limited to the amount necessary to meet the emergency. The maximum ~~cash out payoff~~ the employee can receive for an emergency is limited up to one-third (1/3) of all ~~their~~ his/her accumulated sick leave, provided that the remaining balance is not reduced below two hundred eighty (280) hours.

If an employee makes an irrevocable election to cash out sick leave in the following calendar year and uses sick leave in that subsequent year, the sick leave used will come from sick leave the employee had earned prior to January 1 of the year the employee has elected to cash out sick leave. This is to ensure that assuming an employee had a sick leave balance prior to January 1, the sick leave used will not result in a reduction in the amount of sick leave the employee will be eligible to cash out.

If, during the year when an employee has made an irrevocable election to cash out sick leave ~~they were,~~ he/she was on leave without pay and did not earn the sick leave expected, the employee will still be able to cash out the sick leave the employee did earn even if reduced by the leave without pay.

If there is any change in the law regarding the payoff of sick leave or vacation which occur during the term of this MOU, the Parties agree that either party may reopen negotiations on this section of the MOU.

- c. **Payment of Sick Leave to Deferred Compensation:** An employee who has given irrevocable written notice of their his/her intent to retire at least thirty (30) calendar days prior to the effective date of their his/her retirement, may request that the payoff of their his/her accumulated sick leave be made to their his/her deferred compensation account with the Authority up to the maximum amount permitted by the IRS Code and to the extent permitted under the provisions of Section 1.G.1.a of this Article. Such payoff shall be made prior to the effective date of employee's retirement.

## Section 2. Vacation

### A. Accumulation of Vacation

Accumulation of vacation shall be in accordance with the following schedule:

YEARS OF COMPLETED CONTINUOUS SERVICE	EQUIVALENT HOURS OF COMPLETED CONTINUOUS SERVICE	HOURLY ACCRUAL RATE
0 to 3 years	1 through 6,240.00 regularly scheduled hours	0.0577 hours for each regularly scheduled hour paid
After 3 years but less than 10 years	6,240.01 through 20,800.00 regularly scheduled hours	0.077 hours for each regularly scheduled hour paid
After 10 years	20,800.01 or more regularly scheduled hours	0.0962 hours for each regularly scheduled hour paid

YEARS OF COMPLETED CONTINUOUS SERVICE	EQUIVALENT HOURS OF COMPLETED CONTINUOUS SERVICE	HOURLY ACCRUAL RATE	ANNUAL ACCRUAL
<u>0 to 3 years</u>	<u>1 through 6,240.00 regularly scheduled hours</u>	<u>0.0577 hours for each regularly scheduled hour paid</u>	<u>Approximately 120 hours per year</u>
<u>After 3 years but less than 10 years</u>	<u>6,240.01 through 20,800.00 regularly scheduled hours</u>	<u>0.077 hours for each regularly scheduled hour paid</u>	<u>Approximately 160 hours per year</u>

<u>After 10 years</u>	<u>20,800.01 or more regularly scheduled hours</u>	<u>0.0962 hours for each regularly scheduled hour paid</u>	<u>Approximately 200 hours per year</u>

When it is determined to be in the best interest of the Authority, the Fire Chief may approve increased vacation accruals for new employees, using the rate as described above for employees with at least three years of continuous service.

#### B. Vacation Credit

Vacation credit shall be applied to the employee's vacation accumulation account only upon completion of each pay period. No credit shall be applied during the progress of any pay period or for any portion of a pay period during which the employee terminates Authority service.

#### C. Maximum Allowable Vacation Accrual

1. For full time employees with less than ten (10) years of full-time continuous service: three hundred twenty (320) hours.
2. For part-time employees with less than ten (10) years of full-time continuous service: a prorated amount equal to eight (8) weeks of vacation for part-time employees.
3. For full time employees with more than ten (10) years of full-time continuous service: four hundred (400) hours.
4. For part-time employees with more than ten (10) years of full-time continuous service: a prorated amount equal to ten (10) weeks of vacation for part-time employees.
5. All vacation hours earned in excess of the maximum allowable vacation accrual shall be paid in the pay period earned.

#### D. General Provisions Applicable to Vacation

1. Not more than eighty (80) hours of paid time may be credited toward accumulation of vacation credit in any pay period.
2. A leave of absence without pay shall cause the ten (10) years of full-time Authority service (described on paragraph A above) to be postponed by the length of the leave.
3. In any use of vacation, an employee's account shall be charged to the nearest quarter hour.
4. Vacations shall be scheduled for employees by the Authority; however, consideration shall be given to effectuating the wishes of those employees requesting specific

vacation periods.

5. Employees shall not be required to return to work during the time of ~~their his/her~~ paid vacation except in cases of emergency.
6. No scheduled vacation shall be canceled, except in cases of emergency.
7. When an employee's Authority service consists of part-time regular service or a combination of full-time regular and part-time regular service, both periods of service shall apply towards the required ten (10) years of Authority service, with the part-time service being applied proportionately to the appropriate full-time interval.
8. No employee shall be permitted to work for compensation for the Authority in any capacity during the time of ~~their his/her~~ paid vacation from the Authority service. Employees are permitted to receive reimbursements for voluntary service as Reserve Firefighters while on paid vacation from Authority service.

E. Vacation ~~Cash Out~~Payoff

1. An employee separating from Authority service for reasons other than paid Authority retirement shall be paid for all accrued vacation in a lump sum payment. An employee who is separating from Authority service by way of paid Authority retirement may elect either to take time off for ~~their his/her~~ vacation or to be paid for ~~their his/her~~ vacation in a lump sum payment.
- ~~2. For calendar year 2018 and 2019: An employee may request to be paid for accrued vacation in either two (2) separate increments of up to forty (40) hours each or one (1) increment of up to eighty (80) hours. An employee who is within fifteen (15) hours of the applicable maximum allowable vacation accrual (as set forth in paragraph C above) may request to be paid for one (1) additional increment of up to eighty (80) hours in each fiscal year.~~
- ~~3.2. Effective for calendar year 2020 and every year thereafter:~~ By December 15 of each year, an employee may make an irrevocable election to cash out up to eighty (80) hours of accrued vacation leave which will be earned in the following calendar year at the employee's base rate of pay. In the following year, the employee can receive the cash for the vacation leave ~~they he/she~~ irrevocably elected to cash out in either two (2) separate increments of up to forty (40) hours each or one (1) increment of up to eighty (80) hours. The employee would be paid forty (40) hours on both the pay day for pay periods twelve (12) and twenty-six (26) or the employee can elect to be paid eighty (80) hours on the pay day for pay period twenty-six (26). However, if the employee's vacation balance is less than the amount the employee elected to cash out (in the prior calendar year) the employee will receive cash for the amount of leave the employee has accrued at the time of the cash out.

The employee may alternatively choose to have the value of up to eighty (80) hours of vacation which the employee can otherwise cash out placed into the employee's deferred compensation account. If the employee chooses that option (as opposed to taking cash) the maximum hours (in dollars) the employee can defer to his/~~her~~

deferred compensation account cannot exceed the maximum permitted by the IRS Code.

In addition to the above, ~~starting in calendar year 2020,~~ an employee who has an “unforeseen emergency” (defined as an unanticipated emergency that is caused by an event beyond the control of the employee and that would result in severe financial hardship to the employee if early withdrawal were not permitted) shall be entitled to make a request to the Director of Human Resources for a payoff of accrued vacation leave. The amount of vacation leave which may be paid off is limited to the amount necessary to meet the emergency. The maximum payoff the employee can receive for an emergency is limited up to eighty (80) hours of all ~~their his/her~~ accrued vacation leave.

If an employee makes an irrevocable election to cash out vacation leave in the following calendar year and uses vacation leave in that subsequent year, the vacation leave used will come from vacation leave the employee had earned prior to January 1 of the year the employee has elected to cash out vacation leave. This is to ensure that assuming an employee had a vacation leave balance prior to January 1, the vacation leave used will not result in a reduction in the amount of vacation leave the employee will be eligible to cash out.

If, during the year when an employee has made an irrevocable election to cash out vacation leave, ~~they were he/she was~~ on leave without pay and did not earn the vacation leave expected, the employee will still be able to cash out the vacation leave the employee did earn even if reduced by the leave without pay.

### **Section 3. Holidays**

#### **A. Holidays Observed**

Employees shall observe the following holidays:

- New Year's Day
- Martin Luther King, Jr.'s Birthday
- Lincoln's Birthday
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- ~~Columbus Day~~ Indigenous Peoples' Day
- Veteran's Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Eve
- Christmas Day

#### **B. Holiday Compensation**

1. For each holiday each full-time employee scheduled to work, but permitted to take the

day off, shall be paid for the number of hours the employee is regularly scheduled to work that workday computed at the employee's base hourly rate. A part-time employee scheduled to work, but permitted to take the day off shall receive pay computed at the employee's base hourly rate for the number of hours the employee was regularly scheduled to work to a maximum of nine (9) hours of holiday pay.

2. When a holiday falls on a full-time employee's regularly scheduled day off, the employee shall receive eight (8) hours of compensatory time. A part-time employee shall receive compensatory time at the rate of one (1) hour for each five (5) hours of regularly scheduled work in the workweek to a maximum of eight (8) hours of compensatory time.
3. When a holiday falls on a Sunday, the next day (Monday) shall be observed as the holiday.
4. When Christmas Eve, Christmas Day or New Year's Day falls on a Saturday, the Friday immediately preceding each day shall be observed as the holiday.
5. Employees shall be paid on the paycheck following the pay period during which the holiday occurred.
6. Full-time employees who are on a pay status during the pay period that includes March 1st each fiscal year shall be credited with two (2) hours of paid time at the end of the pay period that includes that date. Part-time employees whose regularly assigned work schedule is at least twenty (20) hours per week shall, in like manner, earn and be credited with one (1) hour of paid time.
7. Eligibility for Holiday Pay
  - a. An employee must be in paid status on their regular work days immediately preceding and after the holiday in order to receive holiday pay.
  - b. A new employee whose first working day is the day after a holiday shall not be paid for that holiday.
  - c. An employee who elects paid Authority retirement on a holiday shall be paid for the holiday.
  - d. An employee who is terminating employment for reasons other than paid Authority retirement and whose last day as a paid employee is the day before a holiday shall not be paid for that holiday.
  - e. With Authority approval, compensatory time earned for working on a holiday or for a holiday falling on a regularly scheduled day off may be taken on the first scheduled working day after the holiday.
8. Compensation for Work on Holidays: An employee who is required to work on a holiday shall, in addition to their ~~his/her~~ regular pay, receive compensatory time for each hour worked on a holiday at a rate of one and one half (1.5) times the employee's base hourly rate.

9. Holidays that fall during an employee's vacation period shall not be charged against the employee's vacation balance.
10. Compensatory time earned under the provisions of this Section may be granted as compensatory time off or paid for at the discretion of the Authority. ~~Employees shall be paid for all compensatory time in excess of eighty (80) hours.~~

#### **Section 4. Bereavement Leave**

Upon request, employees shall receive necessary time off with pay, not to exceed three (3) days in any one (1) instance, for bereavement leave related to the death of their immediate family. For purposes of this Section, immediate family shall mean spouse, registered domestic partner, ~~father, parent, parent~~father-in-law, ~~mother, mother-in-law~~, step-parent, ~~sibling~~brother, sister, wife, husband, child, step-child, grandparent, grandchild, step-grandchild, or dependent child or adult for whom the employee is the legal guardian.

#### **Section 5. Authorized Leave Without Pay**

##### **A. Authority Leave**

Upon request, an employee may be granted an Authority Leave Without Pay for a period of time not to exceed fifteen (15) calendar days. The granting of such Leave shall be at the discretion of the Fire Chief, except in cases where Official Leave has been authorized pursuant to Section B below. The Fire Chief may require that all accumulated compensatory time be used prior to granting of such Leave. The use of earned vacation prior to the obtaining of Leave shall be at the option of the employee.

##### **B. Official Leave Without Pay**

1. Upon request, an employee may be granted an Official Leave of absence without pay. Such Leave, if granted, shall not exceed one (1) year, except as provided in paragraphs B.2 and B.3 of this Section. The Fire Chief may require that all or a portion of accrued compensatory time and vacation be used prior to granting such Leave.
2. An Official Leave of Absence without pay may be extended for up to an additional year at the discretion of the Fire Chief. If the Fire Chief denies the extension of such Leave, paragraphs B.5 and B.6 of this Section shall not apply.
3. An employee shall give notice two (2) weeks prior to the date they ~~wants~~ to return to work. If an employee does not give the required notice prior to the date they ~~he/she~~ ~~wants~~ to return to work, the Authority shall not be required to return the employee to work until the employee gives such notice; however, the Authority may waive the notice or reduce the notice period at its discretion.
4. The Director/Assistant Chief shall indicate on the request for Leave of Absence their ~~his/her~~ recommendations as to whether the request should be granted, modified, or denied and shall promptly transmit the request to the Assistant Chief/Human Resources Director. The Assistant Chief/Human Resources Director shall render a decision within thirty (30) days of when the request is submitted to him/her. If the Assistant Chief/Human Resources Director approves the request, a leave approval

~~letter will be prepared and sent to the requesting employee, Payroll staff, and he/she shall deliver a copy to the Finance Manager, the Department Head/Director/Assistant Chief, and the employee.~~

5. If the Assistant Chief/Human Resources Director modifies or does not approve a request for Official leave without pay, the employee and/or the Department Head/Director/Assistant Chief may, within fifteen (15) calendar days of said action, file a request with the Assistant Chief/Human Resources Director for review by the Fire Chief. Upon such request, the Assistant Chief/ Human Resources Director shall forward a copy of the request for Official Leave without pay to the Fire Chief for final determination. The employee and the Director/Assistant Chief shall notify the Assistant Chief/Human Resources Director whether ~~they he/she~~ shall submit ~~their his/her~~ position in a written statement or wishes to appear before the Fire Chief. The decision of the Fire Chief on such appeals shall be final.
6. An Official Leave without pay shall not be deemed a break in Authority service. However, an employee shall not accrue seniority when on such leave.

#### C. General Provisions

1. A request for an Official Leave of Absence shall be made upon forms prescribed by the Assistant Chief/Human Resources Director and shall state specifically the reason for the request, the date when it is desired to begin the leave of absence, and the probable date of return.
2. The request shall normally be initiated by the employee, but may be initiated by the employee's supervisor or Director/Assistant Chief only where the employee is unable to initiate such request.

#### **Section 6. Jury Duty Leave**

~~An employee who is called for jury duty or for examination for jury duty shall be compensated (as though he or she was working) for those hours of absence due to the jury duty that occurs during the employee's regularly scheduled working hours.~~

An employee who is called for jury duty shall be compensated for those hours of absence due to the jury duty that occurs during the employee's regularly scheduled working hours. An employee who calls the court while at work and finds out that they must report to jury duty the next day must continue to work the remainder of their workday but will be relieved from duty (if still working) with sufficient time to arrive at the court for jury duty in the morning. If the employee is scheduled to be on duty on the day they are on jury duty, they must either return to work after the jury service is done for the day if there are still four hours left in their regular workday or coordinate with their manager regarding the rest of their workday. This may include being permitted to telework for the day.

#### **Section 7. Witness Leave**

An employee who is called to answer a subpoena as a witness for court appearances during the employee's work hours, except where the employee is a litigant or where the subpoena is related to the employee's employment with another employer, shall be compensated as

though he or she was working for all hours of absence from work due to answering the subpoena, provided the employee shows proof of such subpoena and deposits witness fees received for such hours, exclusive of mileage, with the Finance Manager. Fees for answering a subpoena as a witness during hours other than regularly scheduled working hours may be retained by the employee.

## **Section 8. Workers' Compensation Leave**

- A. When an employee is injured or has an illness and ~~their his/her~~ injury or illness prevents the employee from coming to work, once it is determined to be job-related as provided by Part 2 of the Personnel and Salary Resolution, the employee shall be placed on Workers' Compensation Leave. If the question of industrial causation has not yet been made and all ~~accrued leave sick leave~~ has been applied to the absence, the employee shall be placed on Official Leave until a final determination is made.
- B. Workers' Compensation Leave shall continue until the employee:
1. Is determined to be physically able to return to work which the Authority may require be determined by an Authority-designated physician; or
  2. Is determined to be physically able to return to work with medical restrictions which the Authority may require be determined by an Authority-designated physician, that the Authority can accept; or accepts employment outside the Authority; or
  3. Accepts employment in another Authority position; or
  4. Has retired from the Authority; or
  5. Is terminated from the Authority.

An employee who does not return to work within two (2) weeks of the end of ~~their his/her~~ Workers' Compensation Leave pursuant to this provision shall be considered to have automatically resigned ~~their his/her~~ employment with the Authority.

## **Section 9. Catastrophic Leave**

- A. Eligibility for Donations - To receive Catastrophic Leave Donations, an employee or ~~their his/her~~ immediate family member (immediate family member is defined as ~~spouse, registered domestic partner, parent, parent-in-law, father, father-in-law, mother, mother-in-law, step-parent, sibling, brother, sister, wife, husband, child, step-child, grandparent, grandchild, step-grandchild, registered domestic partner,~~ or legal guardian) must:
1. Have a catastrophic medical condition that shall require the employee to be on unpaid Leave.
  2. Exhaust all allowable accrued sick leave, vacation, and compensatory time.
  3. Submit to the employee's Director/Assistant Chief (or ~~their his/her~~ designee) a written request for donations accompanied by a medical statement from the employee's or family member's attending physician. The attending physician's statement must verify

the employee's need for an extended Medical Leave or the need for the employee to take leave to care for a member of ~~their~~ his/her immediate family, and must include an estimated time the employee shall be unable to work.

#### B. Request for Additional Donations

Employees who receive donations and who exhaust all donated sick leave may request an additional donation period(s).

#### C. Donation Procedure

1. Upon receipt of a valid request for donations from an eligible employee, the Director/Assistant Chief (or ~~their~~ his/her designee) shall post a notice of the eligible employee's need for donations on the Authority e-mail system, bulletin boards, or other means of notification accessible to employees. Confidential medical information, unless voluntarily provided by the employee to the Authority, shall not be included in the posted notice.
2. Employees shall be provided a two (2) week period to submit their donations; donations received after the submission period shall not be processed.
3. All donations shall be voluntary.
4. Employees may donate vacation or compensatory time to the eligible employee's catastrophic leave bank; sick leave may not be donated.
5. Donations must be a minimum of two (2) hours, but cannot exceed eight (8) hours; all donations must be made in whole hour increments.
6. All donations shall be irrevocable.
7. At the close of the donation period, the Finance Division shall verify the hourly rate of the donating employee and confirm that each donating employee has accrued time balances sufficient to cover the designated donation.
8. The Finance Division shall process all donations at one (1) time; no additional donations shall be processed.
9. The Authority shall convert the donated time to dollars at the hourly rate of the donor. The dollars shall then be converted to accrued vacation and sick leave, as described herein, at the hourly rate of the recipient of the donation. Donated converted hours shall first be added to the recipient's accrued vacation, to the maximum permitted under Article V, Section 2(C). The balance of the donated converted hours shall then be added to the recipient's sick leave account. These donated vacation and sick leave hours shall be available for use during the recipient's Catastrophic Leave. If any donated hours remain at the end of the recipient's Catastrophic Leave, they shall remain available for the sole use of the recipient. If the recipient dies during the Catastrophic Leave, all unused donated time shall be converted to dollars at the hourly rate of the recipient and paid to the recipient's surviving spouse or registered domestic partner, or estate in the same manner as any monies due for vacation and/or

compensatory time.

10. An employee who is using a Catastrophic Leave donation shall not have that time count for purposes of probation and merit increase eligibility. The probation period and time for eligibility for a merit increase shall be extended by the length of the use of Catastrophic Leave.

## **Section 10. Paid Annual Leave**

- A. Employees are eligible to use paid annual leave (PAL) in addition to their other accrued leave as follows:

1. In the year in which an employee completes ~~their his/her~~ new hire probation with the Authority, ~~an full-time~~ employee will be eligible to take up to forty (40) hours of PAL time off once completing probation as well as in each subsequent calendar year. A part-time employee will be eligible to take up to twenty (20) hours of PAL time off once completing probation as well as in each subsequent calendar year.
2. For employees who have passed their new hire probation with the Authority, on January 1 of each year, employees will receive forty (40) hours of PAL time to use throughout that calendar year.
3. PAL time may not be accrued and must be used within the year earned, which shall be no later than December 31 of that year. If any of the forty (40) hours of PAL are not used by the employee, it will result in the employee's PAL bank being increased for the following year so that ~~they have he/she has~~ exactly forty (40) hours to use within that calendar year. At no time can the employee have more than forty (40) hours in ~~their his/her~~ PAL bank except for those employees who earn additional PAL hours per Article II, Section 10D for the 2022-23 MOU which must all be used during the term of that MOU.
4. As permitted by Labor Code Section 227.3, PAL may not be cashed-out at any time, including at the end of employment.
5. Approval to use PAL is subject to operational need and the requests should be made in advance. If a specific date is denied, the approving manager will attempt to schedule a mutually agreeable alternate date. Such alternate dates must be scheduled within the year the PAL is earned.

## **Section 11. Family and Medical Care Leave / California Family Rights Act Leave and Pregnancy Disability Leave**

The Authority will comply with the provisions of both the Federal Family and Medical Care Leave Act and the California Family Rights Act, and the California Pregnancy Disability Leave Law. Posters setting forth the employees' rights under the law are posted at all workplaces in the Authority.

## **Section 12. Parenthood Leave**

A. A regular, limited-term, or probationary employee shall be granted—upon request—a Parenthood Leave Without Pay of up to six (6) months in connection with the birth or placement for legal adoption of a child, provided the employee meets the following conditions:

1. The requested leave is commenced within six (6) months before or after the date of birth or placement for legal adoption of the child
2. Sufficient documentation of such birth or placement for legal adoption of a child is submitted with the request for leave
3. All accrued vacation and compensatory time have been applied toward the absence.

A.B. Unless otherwise required by law, employees shall not be eligible for more than one (1) such leave within any twelve (12) month period.

B.C. Parenthood Leave shall not be credited toward continuous service.

C. For employees on Parenthood Leave, merit increase eligibility dates, probation periods, and performance evaluation dates shall be treated as if the employee were on Official Leave.

## ARTICLE VI

### EMPLOYEE/EMPLOYER RELATIONS

#### **Section 1. Discipline**

Employee discipline, including the process for issuing discipline and employee appeal rights, are included in this Section.

##### A. Suspension, Reduction in Pay, Demotion or Discharge

1. An employee subject to suspension, reduction in pay, demotion or discharge shall receive a written notice of ~~proposed intent to discipline. any action.~~ Except for a proposed notice of intent to suspend suspension of for forty (40) hours or less ~~(which may be issued at any time prior to the effective date of the discipline)~~ the notice will be issued at least fourteen (14) calendar days prior to the effective date of the proposed action. and shall contain: The notice of intent to suspend for forty (40) hours or less may be issued any time prior to the proposed effective date of discipline.
2. ~~A description of the proposed action and its effective date(s)~~ Such written notices shall contain the elements below:
  - a. A description of the proposed disciplinary action and its effective date(s):
  - a.b. A statement of the alleged facts which support the proposed action as well as the grounds which are supported by the alleged facts;
  - b.c. Copies of documents or other evidence on which the proposed action is based ~~will be attached~~;
  - e.d. A statement of the employee's right to respond, either orally or in writing, prior to the effective date of such proposed action;
  - d.e. A statement of the employee's right to representation; and
  - e.f. A statement of the employee's right to appeal should such proposed action become final.
3. ~~Prior to the effective date of a suspension of more than forty (40) hours, reduction in pay, demotion or discharge, an employee shall be given an opportunity to respond, either orally or in writing, at the employee's option, to a designated Authority representative with the authority to make an effective recommendation on the proposed disciplinary action.~~
- 4.3. ~~If a~~ An employee elects to respond orally to the notice of intent to discipline, they shall be given reasonable time off without loss of pay to attend a Skelly meeting meeting ~~(known as a Skelly meeting)~~ ~~(if the employee chooses to respond orally) to respond to the notice of proposed discipline.~~

~~5.4.~~ An employee may represent himself/herself or may be represented by ~~his/her~~ a representative in the disciplinary process.

~~6.5.~~ An employee and ~~his/her~~ their representative shall receive written notice ~~upholding/sustaining, reducing/modifying, or withdrawing/canceling a proposed notice of intent to~~ discipline on or prior to the effective date of such action.

~~7.6.~~ Should a proposed discipline become final, an employee shall receive a written notice of discipline which will include the employee's right to appeal such action pursuant to paragraph C of this Section.

B. Written Reprimand ~~or Denial of Merit Increase~~

1. A written reprimand ~~or denial of a merit increase~~ requires reasonable cause.
2. An employee may challenge a written reprimand ~~or denial of merit increase~~ as set forth below in paragraph D.

C. Right to Appeal

1. Employees who receive a Notice of ~~Proposed Intent to~~ Discipline ~~as well as a or Notice of Discipline~~ shall have the right to respond prior to the discipline being imposed. Employees who receive a Notice of Discipline have the ~~as well as a~~ right to appeal the discipline per the appeal procedure in paragraph D below.
2. If an employee does not comply with the time limits set forth in the appeal procedure in paragraph D below, the employee has waived their ~~his/her~~ right to further process the appeal, and the disciplinary action shall be ~~issued~~ imposed. Failure by the Authority representative to timely respond to the time limits set forth in paragraph D shall permit the employee to progress the appeal to the next step.
3. The time limits for appeals may be extended by mutual agreement between the Authority representative and employee or their ~~his/her~~ representative.

D. Appeal Procedure ~~—The Skelly Process and Appeal Process~~

1. The appeal procedure shall include two internal steps as well as an ability of an employee to request arbitration as set forth below.
2. All appeals must be submitted to the Assistant Chief/Human Resources Director who administers employee discipline. Submission of the appeal may be via mail, email, or hand delivery. The appeal must be delivered no later than 5:00 p.m. on the last day allowable under the provisions of this Section.

a. STEP 1

~~i. Written Reprimand or Performance Salary Increase Denial~~

~~Upon receipt of a written reprimand or denial of a performance salary increase, an employee may, within fourteen (14) calendar days of receipt of~~

~~such notice, submit a request to the Human Resources Director for a meeting to address the matter. The Human Resources Director shall schedule a meeting with the appropriate Authority representative to hear the employee's presentation. After the employee's presentation, a written determination shall be made within fourteen (14) calendar days.~~

ii.i. Written Reprimand or Notice of Suspension, Reduction in Pay, Demotion or Discharge

Upon receipt of a written reprimand or notice ~~of intent~~ to suspend, reduce in pay, demote or discharge an employee may, within fourteen (14) calendar days of receipt of such notice, submit a request to the Assistant Chief/Human Resources Director, for an appeal hearing meeting (called a Skelly meeting) to address the charges in the notice. The Assistant Chief/Human Resources Director shall schedule the meeting with the appropriate Authority representative to hear the employee's presentation. After the employee's presentation, a written determination shall be made within fourteen (14) calendar days. Should the 14<sup>th</sup> calendar day fall on a weekend or a holiday, receipt of and/or written determination will be made the first business day following the weekend or a holiday.

b. STEP 2

~~i. Written Reprimand or Performance Salary Increase Denial~~

~~If the employee does not agree with the outcome in Step 1, the employee may, within fourteen (14) calendar days of receipt of the Step 1 written determination, submit a written appeal to the Human Resources Director. Within fourteen (14) calendar days of receipt of the appeal at Step 2, the appropriate Authority representative shall meet with the employee (including with the employee's representative if represented). Within fourteen (14) calendar days thereafter, a written decision shall be provided to the employee and his/her representative if represented. The determination shall be final and binding and not referable to arbitration.~~

ii.i. Written Reprimand, Suspension, Reduction in Pay, Demotion or Discharge

If the employee does not agree with the outcome in Step 1, the employee may within fourteen (14) calendar days of the receipt of the Step 1 written determination submit a written appeal to the Assistant Chief/Human Resources Director. Within fourteen (14) calendar days of receipt of the appeal, the appropriate Authority representative shall meet with the employee (including with the employee's representative if represented). Within fourteen (14) calendar days thereafter, a written decision shall be provided to the employee and their ~~his/her~~ representative if represented. Should the 14<sup>th</sup> calendar day fall on a weekend or a holiday, receipt of and/or written determination will be made the first business day following the weekend or a holiday.

- ii. For a written reprimand, the Step 2 determination shall be final and binding and not referable to arbitration.

c. Arbitration

- i. For a suspension, reduction in pay, demotion or discharge, if the employee does not agree with the outcome at Step 2 the employee may appeal the matter to arbitration which shall be held in private, (i.e., not a public hearing) by submitting the appeal in writing (and signed by the employee and/or his/her representative if represented) to the Assistant Chief/Human Resources Director within fourteen (14) calendar days from the date of receipt of such Step 2 decision. Should the 14th calendar day fall on a weekend or a holiday, receipt of and/or written determination will be accepted or made the first business day following the weekend or a holiday.
- ii. The cost of an arbitrator shall be shared equally in all cases by the Authority and the Association (if the Association is paying for any part of the employee's appeal) or solely by the Authority if the Association is not providing any financial support to the employee appealing their discipline.

iii. Finding of Facts and Remedies

An arbitrator may sustain, modify, or rescind an appealed disciplinary action as follows and subject to the following restrictions:

1. First, the arbitrator shall determine if the grounds for discipline were proven by the Authority. Second the arbitrator shall determine if the penalty imposed was appropriate given the proven grounds (which are supported by the facts alleged). If the arbitrator finds that the discipline was appropriate, they ~~he/she~~ shall so find and the discipline is then sustained.
2. If the arbitrator finds that either the grounds alleged were not proven or the penalty imposed was not appropriate given the grounds that were proven, they ~~he/she~~ shall have the authority to issue a decision which either modifies the discipline or concludes that it was issued without just cause.

If the arbitrator finds that the discipline was issued without cause, the employee shall be entitled to back pay and benefits and if appropriate (for demotions and discharge) restoration to the position from which he was discharged or demoted. Restoration of pay and benefits shall be subject to deduction of all unemployment insurance, applicable taxes and withholdings, and outside earnings that the appellant received since the date of discharge if applicable.

- iv. Arbitration appeal hearings for suspensions for less than forty (40) hours shall be limited to one (1) day, unless both parties agree that a

longer hearing is necessary. Both parties shall be allotted equal time during arbitration hearings involving such suspensions.

- v. The arbitrator shall be selected by the mutual agreement of the parties. If the parties cannot agree upon an arbitrator, a list of seven (7) arbitrators shall be obtained from the California State Mediation and Conciliation Service, and each party shall alternately strike one (1) name from the list until only one (1) name remains. The parties will flip a coin to determine who will strike the first name.
- vi. Upon written request by the opposing party in a pending hearing given at least twenty-eight (28) calendar days prior to the scheduled hearing date, the party requested shall supply to the party submitting the requested copies of all documentary evidence to be used by that party at the hearing. Such evidence shall be provided no later than fourteen (14) calendar days prior to the scheduled hearing date. Any evidence not so provided may not be admitted or offered as evidence at the subsequent hearing, except that any such documentary evidence discovered by a party after such a request for copies, but not soon enough to comply with the above time limits, may be admitted, provided it could not have been discovered sooner by reasonable means and provided further that a copy or copies of such evidence be afforded the requesting party as soon as practicable after such discovery. Nothing contained herein shall operate to prevent either party from presenting additional documents by way of rebuttal.
- vii. An employee shall not suffer loss of pay for time spent as a witness at an arbitration hearing held pursuant to this procedure. The number of witnesses requested to attend and their scheduling shall be reasonable and scheduled in advance.
- viii. At the hearing, both the employee and/or their representative and the Authority shall have the right to be heard and to present evidence. The following rules shall apply:
- ix. Oral evidence shall be taken only on oath or affirmation.
- x. Each party shall have these rights: to call and examine witnesses, to introduce exhibits, to cross-examine opposing witnesses on any matter relevant to the issues even though that matter was not covered in the direct examination, to impeach any witness regardless of which party first called the witness to testify, and to rebut the evidence against the witness. If the employee does not testify in their own behalf, the employee may be called and examined as if under cross-examination.
- xi. The hearing need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of

any common law or statutory rule that might have made improper the admission of such evidence over objection in civil actions. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence, but shall not be sufficient in itself to support a finding, unless it would be admissible over objection in civil actions. The rules of privilege shall be effective to the same extent that they are not, or hereafter may be, recognized in civil actions, and irrelevant and unduly repetitious evidence shall be excluded.

xii. The Authority shall be allowed to have at least one (1) employee who may be called upon to testify as a witness present at the arbitration hearing at all times.

xiii. The decision of the arbitrator shall be final and binding on all parties.

#### E. General Provisions Regarding Discipline and the Disciplinary Process

- ~~1. The cost of an arbitrator shall be shared equally in all cases by the Authority and the Association (if the Association is paying for any part of the employee's appeal) or solely by the Authority if the Association is not providing any financial support to the employee appealing his/her discipline.~~
- ~~2. Arbitration appeal hearings for suspensions of less than forty (40) hours shall be limited to one (1) day, unless both parties agree that a longer hearing is necessary. Both parties shall be allotted equal time during arbitration hearings involving such suspensions.~~
- ~~3. The arbitrator shall be selected by the mutual agreement of the parties. If the parties cannot agree upon an arbitrator, a list of seven (7) arbitrators shall be obtained from the California State Mediation and Conciliation Service, and each party shall alternately strike one (1) name from the list until only one (1) name remains. The parties will flip a coin to determine who will strike the first name.~~
- ~~4. Upon written request by the opposing party in a pending hearing given at least twenty-eight (28) calendar days prior to the scheduled hearing date, the party requested shall supply to the party submitting the requested copies of all documentary evidence to be used by that party at the hearing. Such evidence shall be provided no later than fourteen (14) calendar days prior to the scheduled hearing date. Any evidence not so provided may not be admitted or offered as evidence at the subsequent hearing, except that any such documentary evidence discovered by a party after such a request for copies, but not soon enough to comply with the above time limits, may be admitted, provided it could not have been discovered sooner by reasonable means and provided further that a copy or copies of such evidence be afforded the requesting party as soon as practicable after such discovery. Nothing contained herein shall operate to prevent either party from presenting additional documents by way of rebuttal.~~
- ~~5. An employee shall not suffer loss of pay for time spent as a witness at an arbitration hearing held pursuant to this procedure. The number of witnesses requested to attend and their scheduling shall be reasonable and scheduled in advance.~~

- ~~6. At the hearing, both the employee and/or his/her representative and the Authority shall have the right to be heard and to present evidence. The following rules shall apply:
  - ~~a. Oral evidence shall be taken only on oath or affirmation.~~
  - ~~b. Each party shall have these rights: to call and examine witnesses, to introduce exhibits, to cross-examine opposing witnesses on any matter relevant to the issues even though that matter was not covered in the direct examination, to impeach any witness regardless of which party first called the witness to testify, and to rebut the evidence against the witness. If the employee does not testify in his/her own behalf, the employee may be called and examined as if under cross-examination.~~~~
- ~~7. The hearing need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule that might have made improper the admission of such evidence over objection in civil actions. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence, but shall not be sufficient in itself to support a finding, unless it would be admissible over objection in civil actions. The rules of privilege shall be effective to the same extent that they are not, or hereafter may be, recognized in civil actions, and irrelevant and unduly repetitious evidence shall be excluded.~~
- ~~8. The Authority shall be allowed to have at least one (1) employee who may be called upon to testify as a witness present at the arbitration hearing at all times.~~
- ~~9. The decision of the arbitrator shall be final and binding on all parties.~~

## **Section 2. Grievance Procedure**

### **A. Scope of Grievances**

A grievance may be filed by an employee or the Association for an alleged violation of this MOU or to challenge a performance evaluation and/or denial of step for a performance evaluation rated substandard or below overall. ~~Although not a grievance, if an employee has a problem relating to a work situation, the employee is encouraged to request a meeting with his/her immediate supervisor to discuss the problem in an effort to clarify the issue and to work cooperatively towards a satisfactory resolution.~~

#### ~~Processing a Grievance~~

~~The grievance procedure set forth below must be followed to process a grievance.~~

~~Grievances must be submitted to the Human Resources Director within the time limits outlined in this Section. Submission may be via mail, hand delivery, or email, but must be delivered no later than 5:00 p.m. on the last day allowable under the provisions of this Section. A grievance may be filed by an employee or the employee's representative in the name of the employee, at the employee's request as well as by the Association.~~

#### **STEP 1:**

~~A grievance must be submitted in writing within fourteen (14) calendar days from the occurrence that gave rise to the problem and shall state the nature of the grievance and the requested remedy. A Step 1 grievance shall be heard by an appropriate Authority representative who has authority to consider the grievance. Within fourteen (14) calendar days after receipt of the written grievance, the employee (including his/her representative) and/or the Association representative shall meet with the grievant in an attempt to resolve the grievance. Within fourteen (14) calendar days of that meeting, the Authority representative will then issue a decision at Step 1. The grievance will either be resolved to the satisfaction of the grievant (employee or association) or the grievant has the right to request that the grievance be submitted to step 2.~~

#### **STEP 2:**

~~If the grievance is not resolved at Step 1 and it alleges a misinterpretation or misapplication of this MOU, it may be appealed in writing to the Human Resources Director within fourteen (14) calendar days after receipt of the written decision from Step 1. Within fourteen (14) calendar days after receipt of the written Step 2 grievance, the Fire Chief or his/her designee shall meet with the grievant and his/her representative to try and resolve the grievance. Within fourteen (14) calendar days thereafter, a written decision shall be given to the grievant and his/her representative. The decision of the Fire Chief or his/her designee, regarding a substandard performance evaluation, shall be final and binding and shall not be referable to arbitration. If the grievance alleges a misinterpretation or misapplication of this MOU, it may be appealed further to arbitration.~~

### **B. General Provisions Grievances**

1. If an employee does not present a grievance or does not appeal the decision rendered regarding their grievance within the time limits, the grievance shall be considered resolved.
2. If an Authority representative does not render a decision to the employee within the time limits, the employee may, within fourteen (14) calendar days, thereafter appeal to the next step in the procedure.
3. If it is the judgment of any management representative that they do not have the authority to resolve the grievance, they may refer it to the next step in the procedure. By mutual agreement of the Authority and the employee and/or their representative, Step 1 of the grievance procedure may be waived.
4. Upon prior written consent of the parties (i.e., the representatives of the Authority and the employee or their representative), the time limits at any step in the procedure may be extended.
5. Every reasonable effort shall be made by the employee and the Authority to resolve a grievance at the lowest possible step in the grievance procedure.
6. In order to encourage candid discussion and compromise in attempting to resolve grievances, the Authority and the employee and/or their representative agree that the grievance files of the respective parties shall be confidential.

7. If any two (2) or more employees have essentially the same grievance, they may, and if requested by the Authority must, collectively present and pursue their grievance if they report to the same immediate supervisor.
  - a. If the grievant is a group of more than three (3) employees, the group shall, at the request of the Authority, appoint one (1) or two (2) employees to speak for the collective group.
8. An employee may represent himself/herself or may be represented by their representative in the formal grievance procedure.
9. Reasonable time off without loss of pay shall be given to:
  - a. An employee who has a grievance, in order to attend a meeting with their supervisor or other person with authority to resolve the matter, as prescribed herein.
  - b. An authorized grievance representative, in order to attend a meeting with the represented grievant's supervisor or other person with authority to resolve the grievance, or to obtain facts concerning the action grieved through discussion with the grievant or other employees.
10. The following restrictions shall apply in all cases to activities related to processing a grievance:
  - a. Before performing any activities related to processing a grievance during work hours, the grievant or grievance representative shall obtain permission of their supervisor, if applicable, and shall report back to the supervisor when the activity is completed.
  - b. Neither the grievant nor the grievance representative shall interrupt or leave their job to perform such activities unless their supervisor determines that such interruption or absence shall not unduly interfere with the work of the unit in which the grievant or representative is employed. However, an effort shall be made to grant such time off as soon as it is feasible to do so.
11. When an authorized grievance representative must go into another Section or unit to investigate a grievance, if applicable, the representative shall be permitted to do so provided that:
  - a. The representative checks in and checks out with the supervisor of the unit; and
  - b. Such investigation will not unduly interfere with the work of the unit.

### C. Processing a Grievance

The grievance procedure set forth below must be followed to process a grievance.

Grievances must be submitted to the Assistant Chief/Human Resources Director within the time limits outlined in this Section. Submission may be via mail, hand delivery, or email, but must be delivered no later than 5:00 p.m. on the last day allowable under the provisions of this Section. A grievance may be filed by an employee or the employee's representative in the name of the employee, at the employee's request as well as by the Association.

1. STEP 1:

A grievance must be submitted in writing within fourteen (14) calendar days from the occurrence that gave rise to the problem and shall state the nature of the grievance and the requested remedy. A Step 1 grievance shall be heard by an appropriate Authority representative who has authority to consider the grievance. Within fourteen (14) calendar days after receipt of the written grievance, the employee (including their representative) and/or the Association representative shall meet in an attempt to resolve the grievance. Within fourteen (14) calendar days of that meeting, the Authority representative will then issue a decision at Step 1. Should the 14<sup>th</sup> calendar day fall on a weekend or a holiday, receipt of and/or written determination will be accepted or made the first business day following the weekend or a holiday. The grievance will either be resolved to the satisfaction of the grievant (employee or association) or the grievant has the right to request that the grievance be submitted to step 2.

2. STEP 2:

If the grievance is not resolved at Step 1, it may be appealed in writing to the Assistant Chief/Human Resources Director within fourteen (14) calendar days after receipt of the written decision from Step 1. Within fourteen (14) calendar days after receipt of the written Step 2 grievance, the Fire Chief or their designee shall meet with the grievant and their representative to try and resolve the grievance. Within fourteen (14) calendar days thereafter, a written decision shall be given to the grievant and their representative. Should the 14<sup>th</sup> calendar day fall on a weekend or a holiday, receipt and/or written determination will be accepted or made the first business day following the weekend or a holiday.

The decision of the Fire Chief or their designee, regarding a substandard performance evaluation, shall be final and binding and shall not be referable to mediation or arbitration.

The decision of the Fire Chief or their designee, regarding a grievance that alleges a misinterpretation or misapplication of this MOU may be appealed further to mediation or arbitration.

B.D. Mediation

1. A grievant who is not satisfied with the decision at Step 2 has the right (but not the obligation) to request that the grievance be submitted to mediation to attempt to resolve.

- ~~2. Mediation is a non-binding process where the parties utilize the services of a mediator to try and reach an amicable resolution of the grievance. If mediation is chosen, the parties can either agree on a mediator they both wish to use or the Authority will contact the State Mediation and Conciliation Service to appoint a mediator.~~
- ~~3. If the grievance alleges a misinterpretation or misapplication of this MOU, it may be appealed further to arbitration. The grievance will either be resolved to the satisfaction of the grievant (employee or association) or the grievant has the right to request that the grievance be submitted to arbitration.~~

#### G.E. Arbitration

1. If a grievance that alleges a misinterpretation or misapplication of this MOU is not resolved at Step 2 (or at mediation if that process is used) the grievant may request that it be submitted to arbitration. Such a request must be made within fourteen (14) calendar days from the date a decision was rendered at Step 2 or the completion of the mediation process. The arbitrator shall conduct a private hearing (i.e., not in public). The process for that hearing is set forth below.
2. If the grievance is decided by an arbitrator, the grievant and their ~~his/her~~ representative shall relinquish any current or future claim to seek or obtain remedy through any other Authority appeal procedures.
3. The cost of an arbitrator shall be shared equally in all cases by the Authority and the grievant.
4. The arbitrator shall be selected by the mutual agreement of the parties. If the parties cannot agree upon an arbitrator, a list of seven (7) arbitrators shall be obtained from the California State Mediation and Conciliation Service, and each party shall alternately strike one (1) name from the list until only one (1) name remains. The parties will flip a coin to determine who will strike the first name.
5. Upon written request by the opposing party in a pending hearing given at least twenty-eight (28) calendar days prior to the scheduled hearing date, the party requested shall supply to the party submitting the request copies of all documentary evidence to be used by that party at the hearing. Such evidence shall be provided no later than fourteen (14) calendar days prior to the scheduled hearing date. Any evidence not so provided may not be admitted or offered as evidence at the subsequent hearing, except that any such documentary evidence discovered by a party after such a request for copies, but not soon enough to comply with the above time limits, may be admitted, provided it could not have been discovered sooner by reasonable means and provided further that a copy or copies of such evidence be afforded the requesting party as soon as practicable after such discovery. Nothing contained herein shall operate to prevent either party from presenting

additional documents by way of rebuttal.

6. An employee shall not suffer loss of pay for time spent as a witness at an arbitration hearing held pursuant to this procedure. The number of witnesses requested to attend and their scheduling shall be reasonable and scheduled in advance.
7. At the hearing, both the employee and/or the employee's representative and the Authority shall have the right to be heard and to present evidence. The following rules shall apply:
  - a. Oral evidence shall be taken only on oath or affirmation.
  - b. Each party shall have the ~~right~~<sup>rights</sup> to call and examine witnesses;<sup>1,7</sup> ~~to~~ introduce exhibits;<sup>1,7</sup> ~~to~~ cross-examine opposing witnesses on any matter relevant to the issues even though that matter was not covered in the direct examination;<sup>1,7</sup> ~~to~~ impeach any witness regardless of which party first called the witness to testify;<sup>1,7</sup> and ~~to~~ rebut the evidence against the witness. If the employee does not testify on their ~~in his/her~~ own behalf, the employee may be called and examined as if under cross-examination.
  - c. The hearing need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule that might have made improper the admission of such evidence over objection in civil actions. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence, but shall not be sufficient in itself to support a finding, unless it would be admissible over objection in civil actions. The rules of privilege shall be effective to the same extent that they are now, or hereafter may be, recognized in civil actions, and irrelevant and unduly repetitious evidence shall be excluded.
  - d. The Authority shall be allowed to have at least one (1) employee who may be called upon to testify as a witness present at the arbitration hearing at all times.
  - e. The decision of the arbitrator shall be final and binding on all parties.

#### ~~General Provisions~~ Grievances

~~If an employee does not present a grievance or does not appeal the decision rendered regarding his/her grievance within the time limits, the grievance shall be considered resolved.~~

~~If an Authority representative does not render a decision to the employee within the time limits, the employee may, within fourteen (14) calendar days,~~

~~thereafter appeal to the next step in the procedure.~~

~~If it is the judgment of any management representative that he/she does not have the authority to resolve the grievance, he/she may refer it to the next step in the procedure. By mutual agreement of the Authority and the employee and/or his/her representative, Step 1 of the grievance procedure may be waived.~~

~~Upon prior written consent of the parties (i.e., the representatives of the Authority and the employee or his/her representative), the time limits at any step in the procedure may be extended.~~

~~Every reasonable effort shall be made by the employee and the Authority to resolve a grievance at the lowest possible step in the grievance procedure.~~

~~In order to encourage candid discussion and compromise in attempting to resolve grievances, the Authority and the employee and/or his/her representative agree that the grievance files of the respective parties shall be confidential.~~

~~If any two (2) or more employees have essentially the same grievance, they may, and if requested by the Authority must, collectively present and pursue their grievance if they report to the same immediate supervisor.~~

~~If the grievant is a group of more than three (3) employees, the group shall, at the request of the Authority, appoint one (1) or two (2) employees to speak for the collective group.~~

~~An employee may represent himself/herself or may be represented by his/her representative in the formal grievance procedure.~~

#### ~~Time Off for Processing Grievances~~

~~Reasonable time off without loss of pay shall be given to:~~

~~An employee who has a grievance, in order to attend a meeting with his/her supervisor or other person with authority to resolve the matter, as prescribed herein.~~

~~An authorized grievance representative, in order to attend a meeting with the represented grievant's supervisor or other person with authority to resolve the grievance, or to obtain facts concerning the action grieved through discussion with the grievant or other employees.~~

~~The following restrictions shall apply in all cases to activities related to processing a grievance:~~

~~Before performing any activities related to processing a grievance during work hours, the grievant or grievance representative shall obtain permission of his/her supervisor, if applicable, and shall report back to the supervisor~~

~~when the activity is completed.~~

~~Neither the grievant nor the grievance representative shall interrupt or leave his/her job to perform such activities unless his/her supervisor determines that such interruption or absence shall not unduly interfere with the work of the unit in which the grievant or representative is employed. However, an effort shall be made to grant such time off as soon as it is feasible to do so.~~

~~When an authorized grievance representative must go into another Section or unit to investigate a grievance, if applicable, the representative shall be permitted to do so provided that:~~

~~The representative checks in and checks out with the supervisor of the unit; and~~

~~Such investigation will not unduly interfere with the work of the unit.~~

### **Section 3. Layoffs**

The Authority shall follow the Layoff Procedure set forth in the Personnel and Salary Resolution.

### **Section 4. Probationary Period**

#### **A. New Probation**

##### **1. Full-Time Employee**

A new or reemployed employee who has been out of Authority service for more than two (2) years shall be placed on new probationary period for fifty-two (52) weeks from the date of appointment ~~ending with the first day of the pay period following completion of said period.~~ For example, if an employee was hired on Friday, October 21, 2022, their probationary period ends at 11:59 p.m. on Thursday, October 19, 2023.

##### **Part-Time Employee**

A new or reemployed employee who has been out of Authority service for more than two (2) years, employed in a part-time position, shall be placed on new probation for two thousand eighty (2,080) paid hours ~~ending with the first day of the pay period following completion of said period.~~

#### **B. Promotional Probation**

##### **1. An employee who is promoted, ~~except on a temporary promotion,~~ shall be placed on promotional probation, except as provided in paragraph B.2 of this Section.**

a. A full-time employee shall serve a probation period of fifty-two (52) weeks ~~ending with the first day of the pay period following completion of said period.~~ For example, if an employee was promoted on Friday, October 21, 2022 their probationary period ends at 11:59 p.m. on Thursday, October 19, 2023.

- b. A part-time employee shall serve a promotional probation period of two thousand eighty (2,080) paid hours ~~ending with the first day of the pay period following completion of said period.~~
2. When an employee is promoted, demoted or reassigned as a result of the employee's position being reclassified and the class from which the employee is promoted, demoted or reassigned is subsequently deleted or abolished, the incumbent employee shall not be required to serve a promotional probation period.

#### C. Failure of Probation

##### 1. New Probation

An employee on new probation may be released from service at the sole discretion of the Authority at any time without right of appeal.

##### 2. Promotional Probation

- a. An employee on promotional probation may be rejected from probation at any time at the sole discretion of the Authority at any time without right of appeal
- b. When an employee fails ~~their~~his/her promotional probation, the employee shall have the right to return to ~~their~~ his/her former class, provided the employee was not in the previous class for the purpose of training for a promotion to a higher class.
- c. When an employee is returned to ~~their~~ his/her former class under the provisions of this Section, the employee shall serve the remainder of any uncompleted probationary period in the former class.
- d. If the employee's former class has been deleted or abolished, the employee shall have the right to return to a class (assuming the employee meets the minimum qualifications for the job) in ~~their~~ his/her former occupational series closest to, but no higher than, the salary range of the class that the employee occupied immediately prior to promotion and shall serve the remainder of any probationary period not completed in the former class.
- e. An employee who fails promotional probation shall receive a performance evaluation stating the reason for failure of promotional probation.

#### D. General Provisions Regarding Probationary Periods

1. When an employee's record consists of a combination of full-time and part-time service, part-time service shall be applied proportionately by using total hours worked to appropriate full-time requirements. For purposes of this Section, two thousand eighty (2,080) hours shall equal fifty-two (52) weeks.
2. When an employee successfully completes probation, it shall be based upon a written performance evaluation which shall be discussed with the employee. An employee who is permitted by the Authority to work beyond the end of a probation period shall

be deemed to have passed such probation period.

#### E. Extension of Probation Periods

1. Time away from work (excluding any paid leave) in excess of fifteen (15) cumulative calendar days (including time on light duty,) during probation shall cause the employee's probationary period to be extended by the length of the time away from work.
2. Upon recommendation of the Assistant Chief/Director or ~~their~~~~his/her~~ designee or request of the employee with the concurrence of the Assistant Chief/Director or ~~their~~~~his/her~~ designee, the probationary period of an employee may be extended at the sole discretion of the Assistant Chief/Human Resources Director for a period not to exceed one hundred eighty (180) calendar days. Such action must be approved by the Assistant Chief/Human Resources Director prior to the employee's probationary period has ended. Denial of a request to extend a probation period (by an employee) shall not be subject to appeal or grievance.

### Section 5. Performance Evaluations

- A. The Authority shall maintain a system of employee performance ratings designed to give a fair evaluation of the quantity and quality of work performed by an employee. Such ratings shall be prepared and recorded in the employee's personnel file for all employees at least once each year, and, in addition, for employees on probationary status, at least once near the middle of the probation period and prior to the end of the probation period.
- B. The Authority shall discuss with the employee the specific ratings prior to such ratings being made part of the employee's personnel file.
- C. When a performance evaluation is recorded in the personnel file of an employee, a copy of such evaluation, together with any attachment relating thereto, shall be given to the employee. The employee shall have thirty (30) days to attach a response to the evaluation.

### Section 6. Personnel Files

- A. The Authority shall maintain a personnel file for each employee.
- B. Adverse documents prepared by the Authority shall not be included in an employee's personnel file unless a copy is provided to the employee. The employee will have the right to place any comments (in response to the document) on adverse documents which are entered into the employee's personnel file.
- C. An employee shall have the right to inspect and review the contents of ~~their~~~~his/her~~ personnel file at reasonable intervals including when subject to discipline.
- D. Letters of reference and reports concerning criminal investigations concerning the employee shall be excluded from the provisions of paragraphs B and C above.
- E. Any contents of an employee's official personnel file may be destroyed pursuant to an

agreement between the Assistant Chief/Human Resources Director and the employee concerned or by an order of an arbitrator or court, unless the particular item is otherwise required by law to be kept. Neither an employee nor the Association can grieve a decision by the Authority to not destroy a document contained in a personnel file.

## **Section 7. Association Rights**

### **A. Payroll Deductions**

The Association shall notify the Authority, in writing, as to the amount of dues uniformly required of all employees who elect to be members of the Association. The Authority will deduct dues from members of the Association and will remit it to the Association. Association membership dues shall be deducted by the Authority from the pay checks/direct deposits of such members. The Authority shall transmit the dues so deducted to the Association on a monthly basis. The Authority will also transmit a quarterly report to the Association setting forth the employees who pay membership dues.

It is the Association's responsibility to inform the Human Resources Department as to which members of the bargaining unit are members of the Association. The Association shall inform the Human Resources Department in writing of any changes in the membership status of any Association members. Employee requests to cancel or change deductions shall be directed to the Association. The Association shall indemnify the Authority for any claims made by an employee for deductions made in reliance on that information.

The Association agrees to indemnify the Authority for any claim that dues were wrongfully collected as a result of the Association's failure to notify the Authority of membership changes.

The Authority shall provide the Association with the name, job title, department, work location, home and personal telephone numbers, personal email addresses on file with the Authority (unless the employee notifies the Authority that they do not want their personal phone or email address provided to the Association) and home address of any newly hired employee within 30 days of the date of hire or by the first pay period of the month following hire. Additionally, the Authority shall provide the Association with a list of that information for all employees in the bargaining unit at least every 120 days. The information identified in this section shall be provided to the Association regardless of whether the newly hired employee was previously employed by the Authority or whether or not the employee wishes to be a member of the Association, unless the employee has requested in writing that the information shall not be disclosed.

Every 30 days the Authority shall provide the Association with a list of those employees for whom dues are being withheld along with the transmittal of the dues being deducted.

### **B. Use of Bulletin Board**

Space shall be made available to the Association on Authority bulletin boards, provided such use does not interfere with the needs of the Authority, and material posted is not derogatory to the Authority, Authority employees, or other employee organizations. Material which is

derogatory towards any employee or the Authority may be removed by the Authority. Notices shall be dated and signed by the authorized representatives of the Association responsible for their issuance.

#### C. Use of Authority Facilities

With the approval of the Assistant Chief/Human Resources Director, the Association may hold meetings of their members on Authority property during non-working hours, provided the request is made to the Assistant Chief/Human Resources Director as to the specific location and dates of the meeting prior to such meeting. Requests will be granted if meeting space is available.

#### **Section 8. Classification**

It is the responsibility of Department Heads and immediate supervisors to ensure that employees perform work duties and responsibilities within the framework of the employee's assigned classification as described in the established classification specifications. Requests for review of the classification of a position may be initiated by a department or an employee, and shall proceed through the departmental chain of command for approval.

## CONTRACT SIGNATURES

Orange County Fire Authority  
Management's Association

Orange County Fire Authority

\_\_\_\_\_  
Jay Barkman  
~~Treasurer~~ President

\_\_\_\_\_  
Lori Zeller  
~~Assistant Chief, Business Services~~  
~~Deputy Chief, Administration and~~  
~~Support~~

\_\_\_\_\_  
Tammie Pickens  
Director

\_\_\_\_\_  
~~Brigette Gibb~~ Stephanie Holloman  
~~Assistant Chief~~ / Human Resources  
Director

\_\_\_\_\_  
~~Martha Halverson~~ — Tamy Rivers  
Director

\_\_\_\_\_  
Robert Cortez ~~Lori Smith~~  
Assistant Chief / Business  
Services ~~Fire Marshal~~

\_\_\_\_\_  
~~Jonathan Wilby~~  
~~OCFAMA Member and~~  
~~Negotiations Team Member~~

\_\_\_\_\_  
~~Dave Anderson~~  
~~Assistant Chief, Support Services~~

\_\_\_\_\_  
Marianne Reinhold  
Attorney for the OCFAMA

\_\_\_\_\_  
Peter J. Brown  
Labor Negotiator

## APPENDIX A

### OCFAMA CLASSIFICATIONS

Classes included in the OCFAMA as of the date the Board approves this MOU June 25, 2018:

0570 Accounting Manager  
1810 Assistant Clerk of the Authority  
~~1374 Assistant Information Technology Mgr - Customer Relations & Consulting~~  
~~1371 Assistant Information Technology Mgr - GIS & Data Management~~  
~~1373 Assistant Information Technology Mgr - Infrastructure & Workplace Support~~  
~~1372 Assistant Information Technology Mgr - Portfolio & Procurement~~  
1710 Assistant Treasurer  
0555 Budget Analyst  
0575 Budget Manager  
~~0750 Benefit Services Manager~~  
1820 Clerk of the Authority  
0450 Construction and Facilities Division Manager  
0440 Construction Project Manager  
0190 Deputy Fire Marshal  
0875 Diversity and Inclusion Coordinator  
1530 EMS Coordinator  
1250 Emergency Communications Center Manager  
0870 Environmental Health and Safety Officer  
0430 Facilities Maintenance Manager  
0590 Finance Division Manager  
0280 Fleet Services Division Manager  
0765 Human Resources Manager  
1370 Information Technology Division Manager  
1400 Information Technology Manager  
1630 Legislative Affairs Program Manager~~Analyst~~  
1620 Management Analyst  
1540 Medical Director  
0760 Organizational and Development Training Program Manager  
0560 Payroll/Accounts Payable Manager  
~~0450 Property Manager~~  
1080 Public Relations Manager  
0330 Purchasing Division and Materials Manager  
0860 Risk Management Analyst  
~~0870 Risk Management Safety Officer~~  
0880 Risk Manager  
0550 Senior Accountant  
0740 Senior Human Resources Analyst  
1625 Senior Management Analyst  
1720 Treasurer  
0877 Workers' Compensation Program Manager

**APPENDIX B**

**SALARY SCHEDULE**



**Orange County Fire Authority**  
**AGENDA STAFF REPORT**

**Board of Directors Meeting**  
**June 23, 2022**

**Agenda Item No. 3C**  
**Discussion Calendar**

**Fire Integrated Real-time Intelligence System**  
**(FIRIS) 3.0 Program Extension**

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**Contact(s) for Further Information**

Brian Fennessy, Fire Chief	<a href="mailto:brianfennessy@ocfa.org">brianfennessy@ocfa.org</a>	714.573.6010
Robert Cortez, Assistant Chief Business Services Department	<a href="mailto:robertcortez@ocfa.org">robertcortez@ocfa.org</a>	714.573.6012

**Summary**

This agenda item is submitted for approval of budget and contract adjustments to extend the Fire Integrated Real-time Intelligence System (FIRIS) 3.0 Program, as requested by the California Governor's Office of Emergency Services (Cal OES), to continue providing enhanced statewide wildfire and all-hazard situational awareness for first responders. Cal OES will receive funding as part of the FY2022-23 Governor's budget to manage the FIRIS program beginning in FY 2022-23 and has requested that OCFA temporarily retain program management for up to an additional six-month to allow for uninterrupted services while the FIRIS program is transitioned over to Cal OES. Cal OES has also requested that OCFA implement and utilize additional sensor technology on the aircraft, which will require an amendment to the Professional Services Agreement with AEVEX.

**Prior Board/Committee Action**

On July 22, 2021, the Board of Directors authorized the FIRIS 3.0 Program for an initial duration of 90 days. This included approval of \$4.0 million in State funding and approval of various agreements for services including aviation equipment, data analytics, program managers, Mission Commanders, and other related services.

On October 28, 2021, the Board of Directors authorized a subsequent request and funding commitments for an additional \$10.67 million by Cal OES to extend the FIRIS program through June 30, 2022.

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettemer absent).

**RECOMMENDED ACTION(S)**

1. Approve and authorize a budget adjustment to increase revenue and appropriations in the FY 2022-23 General Fund (121) budget by an additional \$9,789,565 for the extension of the FIRIS 3.0 Program up to an additional six months from July 1 through December 31, 2022.
2. Approve and authorize the Purchasing Manager to either amend or enter into new FIRIS-related vendor contracts by the individual amounts needed in support of the FIRIS 3.0 Program extension, so long as the aggregate value of the increase does not exceed the revised program budget (see table).

3. Approve and authorize the Purchasing Manager to issue an amendment to the Professional Services Agreement with AEVEX to modify the scope of services to allow for the installation and utilization of additional sensor technology, as requested by Cal OES.

### **Impact to Cities/County**

The FIRIS program will enhance aerial wildfire response and situational awareness throughout California during the 2022-23 wildfire season.

### **Fiscal Impact**

The FIRIS 3.0 Program was initially funded with \$4 million in State funding for a three-month period from August 1, 2021 to October 31, 2021. Cal OES then provided a funding allocation of an additional \$10,671,443 in new funding to continue the FIRIS 3.0 Program for the remaining eight months of fiscal year 2021-22 through June 30, 2022. Cal OES now desires to extend the term of the Program from July 1, 2022 through December 31, 2022 and will provide an additional \$9,789,565 to ensure uninterrupted program services through the transition period.

### **Background**

#### ***FIRIS Program***

Wildland fire remains the most significant threat to life and property in California; lives, property, and natural resources are threatened on a 24-hour basis. A risk assessment conducted by the California Department of Forestry and Fire Protection (CAL FIRE) concluded that an estimated 11 million residents, or the equivalent of 1 in 4 Californians live in areas considered to be high risk of a wildfire. As a regional fire agency, the OCFA plays a key role in wildfire mitigation and suppression in Orange County and Southern California. Since September of 2020, the OCFA has provided enhanced regional wildfire situational awareness for first responders in Orange County and throughout the State of California at the request of Cal OES pursuant to agreement number A201003758.

#### ***Cal OES Request to Extend the Current FIRIS 3.0 Program***

Funding for the FIRIS program is included in the Governor's budget for the Fiscal Year 2022-23, and anticipated to become available to Cal OES effective July 1, 2022. Currently, Cal OES is undertaking the administrative efforts to establish its own program management framework in preparation for the transition of FIRIS from OCFA to Cal OES. To ensure the continued availability of the FIRIS Program resources, Cal OES now desires to extend the term of the agreement with OCFA to continue program management up to an additional 6-months through December 31, 2022, and will provide up to an additional \$9,789,565 as stated in the Cal OES agreement, amendment No. 5 (Attachment 1).

OCFA expects to successfully transition program management and operations to Cal OES by no later than December 31, 2022 and as such, recommends authorization for the necessary agreement adjustments (subject to the revised program budget as summarized in the table below). This will ensure that the vital program resources funded by the State will continue to operate during the transition of program management from OCFA over to Cal OES.

#### ***Cal OES Request for Additional Aircraft Sensor Technology***

Cal OES has directed that the FIRIS aircraft are intended to function as an all-hazard resource and has requested that OCFA modify the current aircraft to include the addition of Synthetic Aperture Radar (SAR) equipment affixed to the AEVEX Aircraft. The associated costs for this additional equipment will be absorbed within the existing budget allocation for the aircraft. The features of the SAR equipment produce high-resolution imagery of the Earth's surface in all weathers and can penetrate clouds, fog, smog, darkness, and smoke. This technology furthers the Cal OES mission

and direction that FIRIS operate as an all-hazard resource. Staff is requesting approval to amend the Professional Services Agreement with AEVEX to add this technology because it will result in a change to the agreement pricing, enhance the existing aircraft configuration, and thereby may also increase the number of all-hazard incidents on which the aircraft is utilized.

### ***Program Budget***

The table below details the estimated budget for the FIRIS 3.0 Program 6-month extension:

<b>Funding Source</b>	<b>Funding Description</b>	<b>Estimated Amount</b>
Cal OES	New additional funding per Agreement Amendment No. 5 – Reimbursement Basis	\$9,789,565
	<b>Total Project Funding</b>	<b>\$9,789,565</b>
<b>Service Contracts and Other Expenses</b>	<b>Services/Equipment</b>	<b>Estimated Amounts</b>
AEVEX - North & South Operations Aircraft	Daily availability for 180 days with flight hours for primary turbine commander aircraft. Includes estimated SAR equipment.	\$5,729,490
Mission Commanders	Up to four 12-hr Shifts per day for 180 days (Previously utilized Air Tactical Group Supervisors)	\$2,401,250
UCSD/WIFIRE	Enhanced situational awareness/fire modeling and other related services	\$500,000
Program Manager	Project support for 180 days (Rocky Opliger)	\$60,000
Fusion Center Support – LAFD & NCFPD	Fusion Center staffing for 180 days	\$500,000
Other Services	As needed common database, operating picture platform services, additional Fusion Center Support services, potential lease costs for additional air base needs at Los Alamitos JFTB, and other operational needs.	\$187,000
OCFA	Project administration, communications, and other program needs	\$289,337
Air Base – North & South Operations	Airfield to serve as home base for aircraft (assumes costs for McClelland and Chino Airports)	\$22,488
Facilitation Services	Facilitation and support for Cal OES during the transition period	\$100,000
	<b>Total Project Cost</b>	<b>\$9,789,565</b>

### ***Recommendation***

Staff is recommending approval to either amend or enter into new agreements as stated in the recommended actions and table above for the provision of services related to the FIRIS 3.0 Program.

### ***Attachment(s)***

1. Cal OES Funding Agreement Amendment No. 5
2. Cal OES Request to add SAR sensors

SCO ID: 0690-A201003758-A5

**STANDARD AGREEMENT - AMENDMENT**

STD 213A (Rev. 4/2020)

<input type="checkbox"/> CHECK HERE IF ADDITIONAL PAGES ARE ATTACHED	PAGES	AGREEMENT NUMBER <b>A201003758</b>	AMENDMENT NUMBER <b>5</b>	Purchasing Authority Number <b>GOES-0690</b>
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1. This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME

California Governor's Office of Emergency Services (Cal OES)

CONTRACTOR NAME

Orange County Fire Authority (OCFA)

2. The term of this Agreement is:

START DATE

September 1, 2020

THROUGH END DATE

December 31, 2022

3. The maximum amount of this Agreement after this Amendment is:

\$33,089,324.50

Thirty-Three Million Eighty-Nine Thousand Three Hundred Twenty-Four Dollars and Fifty Cents

4. The parties mutually agree to this amendment as follows. All actions noted below are by this reference made a part of the Agreement and incorporated herein:

1. Pursuant to Exhibit A, Statement of Work (SOW); Section 2, Term/Period of Performance; Paragraph B., Cal OES hereby extends the end date of the period of performance from June 30, 2022 to December 31, 2022.

Current Term: 09/01/2020 - 06/30/2022

New Term: 09/01/2020 - 12/31/2022

2. Pursuant to Exhibit A, Statement of Work (SOW); Section 3, Budgeted Amount; Cal OES hereby increases the budgeted amount by \$9,789,565.50.

Previous contract value: \$23,299,759.00

New contract value: \$33,089,324.50

*All other terms and conditions shall remain the same.*

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.

**CONTRACTOR**

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

Orange County Fire Authority (OCFA)

CONTRACTOR BUSINESS ADDRESS

1 Fire Authority Road

CITY

Irvine

STATE

CA

ZIP

92602

PRINTED NAME OF PERSON SIGNING

Brian Fennessy

TITLE

Fire Chief

CONTRACTOR AUTHORIZED SIGNATURE

DocuSigned by:

Brian Fennessy

20D38CB7915E422...

DATE SIGNED

5/31/2022

## STANDARD AGREEMENT - AMENDMENT

STD 213A (Rev. 4/2020)

☐ CHECK HERE IF ADDITIONAL PAGES ARE ATTACHED PAGES

AGREEMENT NUMBER

A201003758

AMENDMENT NUMBER

5

Purchasing Authority Number

GOES-0690

## STATE OF CALIFORNIA

CONTRACTING AGENCY NAME

California Governor's Office of Emergency Services (Cal OES)

CONTRACTING AGENCY ADDRESS

3650 Schriever Avenue

CITY

Mather

STATE

CA

ZIP

95655

PRINTED NAME OF PERSON SIGNING

Heather Carlson

TITLE

Assistant Director, Administrative Services

CONTRACTING AGENCY AUTHORIZED SIGNATURE

DocuSigned by:

Heather Carlson

DATE SIGNED

6/1/2022

CALIFORNIA DEPARTMENT OF GENERAL SERVICES APPROVAL

EXEMPTION (If Applicable)

SCM Vol. 1, 3.10

Emergency Agreement



Attachment 2

June 2, 2022

Robert Cortez  
Assistant Chief  
Orange County Fire Authority  
PO Box 51985  
Irvine, CA 92619-1985

Chief Cortez:

Please accept this request to pursue and engage AEVEX Aviation to add the Synthetic Aperture Radar (SAR) capabilities in accordance with Orange County Fire Authority's procurement laws and policies. It is critical to the State of California to leverage this already existing program and asset for the most effective and efficient technology to support public safety. Our understanding is this SAR Sensor and scope will include demonstration/installation and estimated flight hours from July 1, 2022 to December 31, 2022, with costs consistent with the current FIRIS Amendment 5 contract amount and your email dated May 17, 2022. The additional cost of the sensor will be absorbed within this existing FIRIS project budget commitment (Amendment 5) and approval by Cal OES.

If you have any questions, please feel free to contact me at (916) 396-6134 or [lori.lopez@caloes.ca.gov](mailto:lori.lopez@caloes.ca.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Lori Lopez', written over a horizontal line.

LORI LOPEZ  
Deputy Chief of Administration



## Orange County Fire Authority **AGENDA STAFF REPORT**

**Board of Directors Meeting  
June 23, 2022**

**Agenda Item No. 3D  
Discussion Calendar**

### **2022 Quick Reaction Force (QRF) Program**

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#### **Contact(s) for Further Information**

Brian Fennessy, Fire Chief

[brianfennessy@ocfa.org](mailto:brianfennessy@ocfa.org)

714.573.6010

#### **Summary**

This item is submitted for approval of the 165-day Quick Reaction Force (QRF) Program in collaboration with Southern California Edison (SCE), Coulson Aviation (USA), Inc. (CAI), and the Orange County Fire Authority to enhance regional aerial wildland fire response. The regional 2022 QRF Program will operate in conjunction with Los Angeles County Fire Department (LACoFD) and Ventura County Fire Department (VCFD), which will be available 24 hours a day, for daytime and nighttime firefighting. It is anticipated that the program will commence June 24, 2022, after approval by the Board of Directors.

#### **Prior Board/Committee Action**

On June 8, 2022, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Hernandez, Bourne and Tettermer absent).

Following the Budget and Finance Committee meeting on June 8, 2022, Coulson Aviation (USA), Inc. clarified that the CH-47 Very Large Helitanker will be available for 137 days, instead of the 130 days presented in the staff report to the Budget and Finance Committee. The recommended actions and program tables presented below reflect this update.

#### **RECOMMENDED ACTION(S)**

1. Approve the Funding Agreement with Southern California Edison in a form substantially consistent with the attachment to accept funding in the amount of \$9,018,100 to fund the fixed-cost portion of the 165-day 2022 Quick Reaction Force Program.
2. Approve and authorize the Purchasing Manager to execute the Public Aircraft Lease and Service Agreement with Coulson Aviation (USA), Inc. in a form substantially consistent with the attachment utilizing the sole source procurement provision in the Purchasing Ordinance for the provision of aircraft and other operational related services in an amount not to exceed \$7,974,110 for the 2022 QRF Program term with the option to renew the agreement for two additional program terms, at the sole discretion of OCFA and contingent upon the identification of additional SCE funding.
3. Approve and authorize the Purchasing Manager to enter into a Professional Services Agreement with Perimeter Solutions in a form substantially consistent with the attachment utilizing the sole source procurement provision in the Purchasing Ordinance for the provision of a mobile fire-retardant plant and related services in an amount not to exceed \$1,655,000 for the 2022 QRF Program term.
4. Approve and authorize the Purchasing Manager to enter into new Professional Services Agreements with the Air Tactical Group Supervisors (ATGS') in a form substantially

consistent with the attachment at an amount not to exceed \$250,000 each for the 2022 QRF Program term, with an aggregate program spending cap not to exceed \$660,000.

5. Approve and authorize the Purchasing Manager to enter into a new Professional Services Agreement for Program Manager Services with Scott Jones, in a form substantially consistent with the attachment and an aggregate program spending cap not to exceed \$250,000 for the 2022 QRF Program term.
6. Approve and authorize a FY 2022/23 General Fund (121) budget adjustment to recognize funding from SCE for a revenue increase of \$9,018,100 and to increase appropriations by the same amount.
7. Approve the updated Cost Reimbursement Rate schedule to include the CH-47 Very Large Helitanker, S-61 Helitanker, and S-76 Helitanker daily stand-by and hourly flight rates, and mobile fire retardant plant daily stand-by and hourly rates, and hourly rates for Program Manager and Air Tactical Group Supervisors to be effective June 24, 2022.
8. Adopt an exemption from the California Environmental Quality Act (CEQA) pursuant to Title 14, California Code of Regulations, Section 15301 (Existing Facilities) and direct staff to file a Notice of Exemption.
9. Approve and authorize the Fire Chief to enter into an agreement with the Los Alamitos Joint Forces Training base in a form substantially consistent with the attachment for a program spending cap not to exceed \$150,000 for the 2022 QRF Program term.

### **Impact to Cities/County**

The QRF services will enhance regional aerial wildland fire response.

### **Fiscal Impact**

Authorization of the Budget Adjustment will increase revenues and expenditures by the SCE funding allocation of \$9,018,100 in the FY 2022/23 budget. Total funding for QRF services will come in the form of SCE funds, ABH reimbursements from other fire agencies requesting QRF services, and use of State Augmentation Funds for any non-reimbursable flight time (such as in-county or non-incident related), helicopter managers, and air base costs.

### **Background**

#### **Quick Reaction Force (QRF) Program**

Wildland fire remains the most significant threat to life and property in California. Given the devastating and destructive wildfires of recent years, Governor Gavin Newsom, as well as fire agencies and utility companies throughout the state, continue to emphasize that wildfire mitigation and suppression are a top priority. The combined residential population of Orange, Los Angeles, and Ventura Counties exceeds one-third of the entire state of California. Though each of the aforementioned counties maintains wildland fire aerial suppression programs, large destructive fires still occur. When a wildland fire exceeds the suppression effort mounted during initial attack, the QRF Program rapidly deploys additional reinforcement aircraft including a Very Large Helitanker, Areal Supervision aircraft, and mobile fire retardant plant services. The ability to rapidly deploy more robust ground and aerial fire suppression resources remains an immediate and imperative need. As a regional fire agency, the OCFA plays a key role in wildfire mitigation and suppression in Southern California.

#### 2021 QRF Pilot Program Update

The 2021 QRF Pilot Program accomplished 2,192 total drops (823 during nighttime operations) laying down 2.9 million gallons of water and 139,000 gallons of retardant. Some of the drops were on such fires as the Laguna Incident, Caldor Fire, French Fire, Alisal Fire, and Niguel Fire. The continuation of QRF is valuable to the community of Orange County. These resources greatly

benefited Orange County and the residents and businesses within the SCE service territory during the 2021 fire season by minimizing large fire spread.

### 2022 QRF Program

The OCFA is again presented with the opportunity to partner with Southern California Edison (SCE), Coulson Aviation (USA) Inc. (CAI), Perimeter Solutions and the Counties of Los Angeles and Ventura for the Quick Reaction Force (QRF) program for the 2022 fire season. The QRF is organized and dispatched as a complete aviation suppression package with everything it needs to operate at full capacity without having to rely on logistical support from the incident organization. It is anticipated that the 2022 QRF program will include the following resources assigned to OCFA, Los Angeles and Ventura Counties:

- 3,000-gallon, CH-47, Very Large Helitankers (VLHT)
- 1,000-gallon, Sikorsky S-61 Helitankers
- Night-vision-equipped Sikorsky S-76 Aerial Supervision aircraft with qualified and experienced Air Tactical Group Supervisor (ATGS) or Helicopter Coordinator (HLCO)
- Multiple mobile helicopters re-fueling tenders
- Portable retardant mixing plant

The benefits of these resources include improved water and retardant delivery rates through the coordination of multiple resources, faster retardant delivery by utilizing portable retardant hover-fill dip tanks, along with the continued advanced capability to drop large amount of fire retardant at night. The components of the QRF will again be strategically located throughout the three partner counties with Orange County's resources anticipated to be based at the Joint Forces Training Base (JFTB) in Los Alamitos. The QRF will operate within the defined fire threat areas of the SCE service territory as illustrated in the map (Attachment 6). Pending Board approval, the QRF Pilot Program will operate 24/7 for 165-days and begin on June 24, 2022.

### **Selection of Coulson Aviation (USA) Inc.**

#### Solicitation Process

After SCE announced its intent to fund the 2022 QRF program, OCFA staff was advised of the possibility that multiple sources may be available to provide the type of aircraft needed for the program. In conjunction with the Ventura County Fire Department, staff developed and issued Request for Statements of Qualifications (RFSQ) SK2554a on May 5, 2022 as the first step in an anticipated two-step solicitation process to select an aircraft provider. Because of its purchasing regulations, Los Angeles County was unable to participate in this joint venture and issued a solicitation of its own.

In accordance with Section 1-44 of the Purchasing Ordinance, the RFSQ utilized "Brand name or equal" specifications and documented that the purpose for this was to describe the standard of quality, performance, and other characteristics required for the program. The RFSQ included the specific aircraft that were used in the 2021 QRF Pilot Program and provided instructions on the type of information to submit if offering equivalent aircraft to what was specified. RFSQ SK2554a also included a written determination in accordance with Section 1-17(2) of the Purchasing Ordinance stating the necessity to have an abbreviated solicitation schedule in anticipation of the planned program start date. A pre-submittal teleconference was held on May 11, 2022 and six individuals representing four firms attended. Questions surrounding aircraft capabilities, vendor experience, and program functionality were discussed and responses were provided in Addendum One to the solicitation. No disputes relating to the solicitation process were received and one Statement of Qualifications (SOQ) was submitted by Coulson Aviation (USA) Inc. prior to the

advertised due date and time. The evaluation panel scored the SOQ in accordance with the criteria stated in the RFSQ and deemed the Offeror “Qualified”.

#### Sole Source Justification

In accordance with Section 1-21(1) of the OCFA Purchasing Ordinance, a “General Sole Source” procurement contract is recommended when it is determined, after conducting a good faith review of available sources, that there is only one source for the required service. Because staff received only one SOQ in response to the RFSQ SK2554a, staff determined in conjunction with legal counsel that the best course of action for OCFA would be to not pursue the planned Phase Two RFP process and move forward with contract formation directly with Coulson Aviation (USA) Inc. as a “General Sole Source”. Ventura County Fire Department staff reviewed the options available to them within their procurement regulations and is pursuing a similar Sole Source contract formation process directly with Coulson as well.

#### **Selection of Perimeter Solutions**

##### Sole Source Justification

In accordance with Section 1-21(1) of the OCFA Purchasing Ordinance, a “General Sole Source” procurement contract is recommended when it is determined, after conducting a good faith review of available sources, that there is only one source for the required service. The United States Forest Service (USFS) produces a Qualified Products List (QPL) detailing the fire retardant products that are approved for application on Federal lands. CAL FIRE also utilizes this list when determining what retardants may be applied to State lands. Per the USFS QPL, Phos Chek 259-Fx is the only retardant that may be dropped from the type of helitankers that will be utilized in the QRF program. Perimeter Solutions is the manufacturer of this unique, approved product and as such are a key supplier to the USDA Forest Service, CAL FIRE and other large fire management agencies. Additionally, Perimeter Solutions is the only full-service solutions provider with a fire safety office, equipment, personnel, and available long term retardant materials in the Orange County region that can be deployed within 2-3 hours from initial call.

#### **Project Funding**

SCE has agreed to provide \$9,018,100 in an effort to increase the effectiveness of aerial response to wildland fires and will cover the fixed costs of the CH-47, S-61 and S-76 Aerial Supervision Aircraft, along with the standby lease of one mobile retardant plant, ATGS/HLCO, and a Program Manager for 165 days. Agencies requesting QRF services will cover the variable costs via ABH cost reimbursement. Program non-reimbursable costs will be covered by State Augmentation funds.

The table below details the funding and estimated spending caps for the 2022 QRF Program:

<b>Program Funding:</b>		
<b>Funding Source</b>	<b>Description</b>	<b>Total</b>
Southern California Edison	165-day Program Contribution (applicable to fixed costs)	\$9,018,100
<b>Total Funding Sources:</b>		<b>\$9,018,100*</b>

<b>Program Spending Caps:</b>			
<b>Contractor</b>	<b>Resource</b>	<b>Detail</b>	<b>Estimated Spending Cap</b>
Coulson Aviation Inc.	CH-47 Very Large Helitanker	Stand-by Lease: \$33,600 a day x 137-days (fixed-cost)	\$4,603,200
		Est. Flight time: \$9,007 per hour x 80 hours (variable cost)	\$720,560
	S-76 Aerial Supervision Aircraft	Stand-by Lease: \$10,500 a day x 165-days (fixed-cost)	\$1,732,500
		Est. Flight time: \$3,841 per hour x 50 hours (variable cost)	\$192,050
	S-61 Helitanker**	Stand-by Lease: \$22,050 a day x 28-days (fixed-cost)	\$617,400
		Est. Flight time: \$5,420 per hour x 20 hours (variable cost)	\$108,400
Perimeter Solutions	Mobile Retardant Plant	\$7,000 a day x 165-days (fixed-cost)	\$1,155,000
		Freight costs, overtime, water tender, etc. (variable cost)	\$500,000
ATGS/HLCO	Air Tactical Group Supervisors/Helicopter Coordinator	\$2,000 a day per ATGS x 165-days. Two ATGS's per day (fixed-cost)	\$660,000
Program Management	Professional Services and OCFA Staff Costs***	As needed/on demand Professional Services & OCFA Salary and Employee Benefits Costs	\$250,000
Air Base	Joint Forces Task Base, Los Alamitos	Airfield to serve as home base for aircraft	\$150,000
<b>Total Spending Cap:</b>			<b>\$10,689,110</b>

\* Balance of funding will come from ABH Cost Recovery and use of State Augmentation funds

\*\* On November 8, 2022, Coulson will substitute an S-61 for the OCFA CH-47 for the remainder of the program.

\*\*\* The Program Manager aggregate spending cap is available for both contracted services and OCFA Staff. OCFA Staff will serve in the Program Manager role during periods of time when contractor is unavailable. Aggregate spend will not exceed \$250,000.

### **Resources Available to Other Fire Agencies Upon Request**

The CH-47 VLHT, S-61 helitanker, and S-76 Aerial Supervision Aircraft daily standby lease and hourly flight rates, the mobile retardant plant daily standby and variable cost rates, Air Tactical Group Supervisors, and a Program Manager are being added to the equipment cost reimbursement rate schedule (Attachment 7). This will serve as the basis for OCFA cost reimbursement for services requested by other fire service agencies. OCFA will be responsible for the flight-time charges for OCFA's own use of the CH-47, S-61, and S-76 Aerial Supervision Aircraft resources.

### **California Environment Quality Act (CEQA) Exemptions**

CEQA's Class 1, Existing Facilities Exemption, applies to the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private facilities, structures or topographical features involving negligible or no expansion of an existing or former use. (14 Cal. Code Regs., tit. 14, § 15301.) The Joint Forces Training Base in Los Alamitos (JFTB) is home to existing aerial facilities and operations. The MOU would result in OCFA's temporary storage and operation of a CH-47 Very Large Helitanker, S-61 Helitanker, and S-76 coordination helicopter, and mobile fire-retardant plant at the JFTB for 165 days. The CH-47 Very Large Helitanker was also stored and operated out of the JFTB, and supported by ATGS, for these purposes in 2019 and 2020. Notably, the CH-47, S-61, and S-76 helicopters will be made available to over 15 other counties in the Southern California region; therefore, these helicopters could also be fighting fires in those other counties during this time. Based on all of the foregoing, the MOU calls for the operation of existing public and private facilities with no or negligible expansion of an existing use and the Class 1 Exemption therefore applies.

Staff recommends approval of the stated recommended actions in order to begin the 165-day program on June 24, 2022.

### **Attachment(s)**

1. Proposed Funding Agreement with Southern California Edison (*Draft*)
2. Proposed Public Aircraft Lease and Service Agreement with Coulson Aviation (USA), Inc. and Sole Source Form
3. Proposed Agreement with Perimeter Solutions and Sole Source Form
4. Proposed Agreement with ATGS'
5. Proposed Agreement with Program Manager
6. Proposed Lease Agreement with Joint Forces Task Base
7. Proposed Southern California Edison Service Territory Map
8. Proposed Cost Reimbursement Rates – Equipment

**FUNDING AGREEMENT BY AND BETWEEN THE ORANGE COUNTY FIRE  
AUTHORITY AND SOUTHERN CALIFORNIA EDISON COMPANY**

This Funding Agreement (“Agreement”) is by and between THE ORANGE COUNTY FIRE AUTHORITY, a California Joint Powers Authority (“OCFA”) and SOUTHERN CALIFORNIA EDISON COMPANY, a California corporation (“SCE”), and is effective on the last date when both Parties sign this Agreement (the “Effective Date”). OCFA and SCE may be referred to herein individually as a “Party” and collectively as the “Parties.”

**RECITALS**

**WHEREAS**, due to extreme weather associated with climate change, Southern California has experienced longer and more severe wildfire seasons;

**WHEREAS**, to increase the effectiveness of aerial response to wildfires, OCFA intends to enter into a 165 day lease and service agreements with an aviation firm (the “Helitanker Provider”) for a CH47 (137 days) and a S-61 (28 days) helitanker and an S76 coordination helicopter (165 days), or their equivalents, all of which are capable of nighttime operations, an agreement with Perimeter Solutions (“Perimeter”) for one mobile fire retardant plant with a twelve-hour supply of retardant (such leased assets together, the “Fire Suppression Assets”), and fund an OCFA program manager;

**WHEREAS**, OCFA has requested that SCE provide funding of that part of the fixed lease costs relating to stand-by time for the Fire Suppression Assets (with OCFA funding that part of the fixed lease cost relating to flight time) and SCE has determined that the use of the Fire Suppression Assets offers significant benefits for wildfire suppression, protecting lives and property, including mitigating against damage to SCE’s transmission and distribution system, and increasing firefighter safety;

**WHEREAS**, the Parties intend that in operating the Fire Suppression Assets, OCFA will prioritize fire suppression activities in and throughout SCE’s service territory, unless in the professional judgment of OCFA management to do so in any specific instance would not maximize the benefits described above or as otherwise directed by the appropriate governmental authorities; and

**WHEREAS**, the Parties desire to enter into an Agreement that sets forth the terms and conditions pursuant to which SCE will contribute funds to OCFA for (1) the fixed lease costs relating to helicopter stand-by time, daily stand-by rate for one mobile fire retardant plant, and (2) Air Tactical Group Supervisor (ATGS)/Helicopter Coordinator (HLCO) staffing (“Stand-by Costs”), and (3) program manager only while OCFA agrees to fund any and all flight time and operational costs in the Helitanker Provider and Perimeter lease agreements.

**NOW THEREFORE**, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

## **1. Funding.**

Within seven business days of the Effective Date, SCE will electronically transfer a payment in the amount of nine million eighteen thousand and one hundred dollars (\$9,018,100) (the “Funding Amount”) to OCFA. OCFA will use this payment exclusively to fund the Stand-by Costs, including but not limited to the stand by portion of the lease agreements with the Helitanker Provider and Perimeter, which leases must begin on June 24, 2022 and last for 165 days (the “Lease Period”), or a different lease period is agreed to by the Parties in writing, and the covered program manager costs, Air Tactical Group Supervisor (ATGS)/Helicopter Coordinator (HLCO) staffing, and the covered program manager costs. Under this Agreement, OCFA shall fund the “flight time” and operational portions of the Helitanker Provider and Perimeter lease agreements, which include any and all costs required to operate the Fire Suppression Assets. The Parties acknowledge that time is of the essence in performing their obligations under this Agreement. If, for any reason, OCFA does not enter into the leases by June 24, 2022, or such other date agreed to by the Parties in writing, then OCFA shall return the entire payment to SCE. SCE shall not be entitled to any refund of the payment for the Stand-by Costs in the event OCFA receives reimbursement from the State, Federal Government, or any other entity for use of the Fire Suppression Assets. Any remainder of the Funding Amount following the expiration of the Lease Period will be applied to any unreimbursed OCFA flight time and will not be returned to SCE.

## **2. Roles and Responsibilities.**

SCE will communicate with OCFA concerning fire weather forecasts and share information in SCE’s possession relevant to the prepositioning or tasking of the Fire Suppression Assets; provided, SCE makes no representation or warranty as to the accuracy or completeness of such forecasts and information in connection with this Agreement. SCE understands and acknowledges that OCFA can and does rely on other sources of data, forecasts and information when making decisions concerning prepositioning or tasking of the Fire Suppression Assets, and that such decisions are made in the sole discretion of OCFA. SCE shall provide the Funding Amount to defray the Stand-by Costs payable by OCFA to the Helitanker Provider and Perimeter under the lease agreements, Air Tactical Group Supervisor (ATGS)/Helicopter Coordinator (HLCO) staffing, and the program manager.

Notwithstanding the foregoing, SCE shall have no role in directing the operation or use of the helicopters and shall not be a party to the lease agreements with the Helitanker Provider and Perimeter. As between SCE and OCFA, OCFA is solely responsible for the safe and lawful operation and use of the Fire Suppression Assets, including all decisions regarding deployment, maintenance, basing and positioning, pilot readiness, and ground support, and OCFA shall be solely responsible for compliance with the terms and conditions of the lease and all payments thereunder.

## **3. Data Collection.**

Part of ensuring accountability and return on investment in the Fire Suppression Assets, SCE expects consistency of reporting on every fire the aircraft take action as verification that the program represents a good investment for its rate payers. SCE's investment in the Fire Suppression Assets generates value for the SCE rate payers by mitigating wildfire damage in the SCE service area.

SCE has provided funding for an intelligence gathering Helicopter Coordinator ("HLCO") platform to be staffed with qualified aerial supervision and a sensor operator to gather the information important to SCE and emergency incident staff.

SCE has provided the funding necessary to equip state of the art technology on board the HLCO helicopter. This equipment provides an additional margin of safety for the water/retardant dropping helicopters and has capability to film aerial firefighting operations, map the fire and verify the fire being extinguished and track the performance of the firefighting aircraft.

Based on the above contract deliverable the HLCO helicopter will be required to provide SCE a report with footage of all incidents where the aircraft provide service within the SCE service area.

OCFA will provide the data and information that SCE requires to allow SCE to (1) evaluate the effectiveness of the Fire Suppression Assets in suppressing wildfires, protecting lives and property, and increasing firefighter safety, and (2) respond to information requests from, or make regulatory filings and reports to, the California Public Utilities Commission ("CPUC") and other regulators or governmental departments or agencies. Such data shall include, but not be limited to, the following: (a) aircraft utilization rate (flight time conducting suppression missions vs. standby hours), (b) gallons of water or retardant dropped and number of drops per fire, (c) number and location of wildfires attacked, and (d) whether and to what extent the Fire Suppression Assets are utilized outside of SCE's service territory. OCFA shall work with the Helitanker Provider to submit the foregoing data in a GIS shapefile to SCE on a monthly basis on the first day of each calendar month beginning on August 1, 2022 through the Lease Period and within five (5) days of SCE's written request therefore at any other time during the Lease Period.

#### **4. Indemnification.**

To the maximum extent permitted by law, OCFA shall indemnify, defend, and hold harmless SCE, and its respective successors, assigns, affiliates, subsidiaries, parent companies, officers, directors, agents, and employees ("Indemnified Parties"), from and against any and all expenses, claims, losses, damages, liabilities or actions in respect thereof (including reasonable attorneys' fees and reasonably allocated cost of in-house counsel) ("Claims") to the extent arising from or related to the lease or service agreements with the Helitanker Provider and Perimeter, the professional services agreement(s) with the Air Tactical Group Supervisors, or operation or use (including, but not limited to prepositioning or tasking) of the Fire Suppression Assets. For clarity, regardless whether SCE's equipment was a cause of the wildfire, the preceding indemnification does not obligate OCFA to indemnify, defend, or hold harmless any of the Indemnified Parties, or any of them, from any third-party claim that any of the Indemnified Parties caused the wildfire, but only to claims that the operation or use of the Fire Suppression

Asset resulted in damage to a third-party. This indemnity shall not apply to any expense, claim, loss, damage, liability or action to the extent such expense, claim, loss, damage, liability or action results from the fraud, gross negligence, or willful misconduct of any of the Indemnified Parties in the performance of this Agreement.

**5. Authority to Contract.**

Each Party represents and warrants that it has the authority to contract or otherwise commit to perform the obligations herein.

**6. Relationship of the Parties.**

Nothing in this Agreement is intended to, or shall be deemed to, establish any partnership or joint venture between the Parties, constitute any Party to be the agent of another Party, nor authorize any Party to make or enter into any commitments for or on behalf of another Party.

**7. Public Announcements.**

Neither Party may issue any press release regarding the Agreement unless (1) the press release is issued jointly by the Parties, or (2) prior to the release, the Party proposing to make the announcement furnishes the other Parties with a copy of the press release and obtains the other Parties' written approval; provided, however, that if such press release is required to comply with applicable laws, including the California Public Records Act and the Ralph M. Brown Act, legal proceedings, or the rules and regulations of any court or stock exchange having jurisdiction over a Party, then the Parties shall work in good faith to develop a mutually acceptable announcement.

**8. Term and Survival.**

This Agreement shall be effective as of the Effective Date through the date that all obligations of the Parties hereto with respect to this Agreement have been satisfied (the "Term"), except that the Parties shall continue to be bound by the provisions of this Agreement which by their nature survive such completion or termination, including Section 5 ("Indemnification") and Section 11 ("Governing Law").

**9. Written Notices.**

All notices, requests, demands, and determinations under the Agreement (other than routine operational communications), shall be in writing and shall be deemed duly given: (1) when delivered by hand, (2) one day after being given to an express courier with a reliable system for tracking delivery, (3) when sent by confirmed facsimile or electronic mail with a copy sent by another means specified in this Section, or (4) three days after the day of mailing, when mailed by United States mail, registered or certified mail, return receipt requested, postage prepaid, and as addressed as specified below:

If to OCFA, addressed to:

Brian Fennessy  
Fire Chief  
1 Fire Authority Road  
Irvine, CA 92602

Fax: (714) 368-8800  
Email: brianfennessy@ocfa.org

If to SCE, address to:

Don Daigler  
Southern California Edison Company  
2244 Walnut Grove Ave.  
Rosemead, CA 91770

Email: Donald.Daigler@sce.com

With a Copy to:

David Kendig  
c/o Woodruff, Spradlin & Smart  
555 Anton Boulevard, Suite 1200  
Costa Mesa, CA 92626

Fax: (714) 415-1183  
Email: dkendig@wss-law.com

## **10. Assignment.**

No Party shall assign this Agreement or any part or interest thereof, without the prior written consent of the other Parties, and any assignment without such consent shall be void and of no effect.

## **11. Governing Law.**

This Agreement shall be interpreted, governed, and construed under the laws of the State of California as if executed and to be performed wholly within the State of California.

## **12. Entire Agreement.**

This Agreement contains the entire agreement and understanding between and among the Parties and merges and supersedes all prior agreements, representations and discussions pertaining to the subject matter of this Agreement. This Agreement is intended to be a final expression of the agreement of the Parties and except to the extent expressly referenced herein, is an integrated agreement within the meaning of Section 1856 of the California Code of Civil Procedure (the Parole Evidence Rule). There are no contemporaneous separate written or oral agreements between the Parties in any way related to the subject matter of this Agreement. No subsequent agreement, waiver, modification, representation or promise with respect to the subject matter of the Agreement made by the Parties hereto, or by or to any employee, officer, agent or representative of any Party shall be of any effect unless it is in writing and executed by the Parties hereto.

## **13. Counterparts and Electronic Signatures.**

This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together shall be deemed to be one and the same instrument. Documents executed, scanned and transmitted electronically and electronic signatures shall be deemed original signatures for purposes of the Agreement and all matters related thereto, with such scanned and electronic signatures having the same legal effect as original signatures.

**[Signatures on Following Page]**

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives.

**“OCFA”**

**ORANGE COUNTY FIRE AUTHORITY**

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Brian Fennessy  
Fire Chief

**APPROVED AS TO FORM.**

**ATTEST:**

By: \_\_\_\_\_  
David E. Kendig  
General Counsel

\_\_\_\_\_  
Maria D. Huizar  
Clerk of the Authority

Date: \_\_\_\_\_

**“SCE”**

**SOUTHERN CALIFORNIA EDISON  
COMPANY**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: Jill C. Anderson  
Title: Executive Vice-President, Operations

## **PUBLIC AIRCRAFT LEASE AND SERVICE AGREEMENT**

**THIS PUBLIC AIRCRAFT LEASE AND SERVICE AGREEMENT** ("Public Aircraft Agreement") is made this 23<sup>rd</sup> day of June 2022

### **BETWEEN:**

**COULSON AVIATION (USA) INC.**, a limited liability company organized under the laws of the State of Oregon ("**CAI**"); and

**ORANGE COUNTY FIRE AUTHORITY**, a joint powers agency created pursuant to the California Joint Exercise of Powers Act (Gov't Code §§ 6500 *et seq.*) ("**OCFA**").

### **WHEREAS:**

- (A) OCFA wishes to lease the Aircraft and obtain services for operation of OCFA's Governmental Functions, all as described in detail herein;
- (B) CAI wishes to lease and supply such Aircraft and services to OCFA and operate the Aircraft for OCFA in OCFA's Governmental Functions, all as described in detail herein; and
- (C) The Aircraft shall be considered Public Aircraft when performing any of the operations contemplated by this Public Aircraft Agreement.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, and intending to be legally bound hereby, the parties agree as follows:

### **1. DEFINITIONS.**

**1.1** In this Lease the following words and expressions have, except where the context otherwise requires, the meanings set forth below:

"The Aircraft" means the aircraft identified in Appendix 3 Compensation in Table 1 Aircraft.

"Aircraft Flight Hour Payment" means the rates per flight hour including fuel as identified in Appendix 3 Compensation.

"Crew" means a night vision goggles certified flight crew, and a full maintenance crew, to operate and maintain Aircraft, and a night vision goggles certified flight crew and a full maintenance crew.

"Commencement Date" means the 24<sup>th</sup> of June 2022.

“Daily Rental” means the rates as identified in Appendix 3 Compensation which shall include in addition to leases of the Aircraft, an 10,000 USG fuel truck, 53 foot spares trailer and driver, and a mobile support base (Prevost Bus).

“Day Operations” means the provision of services from 6am to 6pm on a daily basis.

“Event of Default” shall have the meaning prescribed in clause 11.1.

“FAA” means the United States Federal Aviation Administration.

“FAA Public Aircraft Policy” means the policy of the FAA with regard to defining Public Aircraft contained in the FAA Notice of Policy Regarding Civil Aircraft Operators Providing Contract Support to Government Entities (Public Aircraft Operations) published on March 23, 2011 in the Federal Register, FAA Advisory Circular No. 00-1B, and such additional or successor documents regarding FAA’s policy regarding Public Aircraft.

“Flight Hour Payment” means Aircraft Flight Hour Payments due.

“Governmental Functions” means as such term is defined in Section 40125 of Title 49 of the United States Code, an activity undertaken by a government, such as intelligence missions, firefighting, or biological or geological resource management.

“Insurance Schedule” means those insurance terms and amounts described in Appendix 1 attached hereto.

“Night Operations” means the provision of services from 6pm to 6am on a daily basis.

“Owner(s)” means the registered and beneficial owner of each Aircraft.

“Public Aircraft” shall have the meaning as such term is defined in Section 40102(a)(41) of Title 49 of the United States Code as aircraft exclusively leased for at least 90 continuous days by the government of a State, the District of Columbia, or a territory or possession of the United States or a political subdivision of one of these governments, except as provided in Section 40125(b) of Title 49 of the United States Code, which excludes aircraft used for commercial purposes or to carry an individual other than a crewmember or a qualified non-crewmember.

“Public Aircraft Declaration” means a written declaration (from the contracting officer of OCFA or higher-level official) of public aircraft status for all flights of the Aircraft under this Public Aircraft Agreement substantially in the form of Appendix 2 attached hereto.

“Qualified Non-Crewmember” means an individual, other than a member of the crew, aboard an aircraft whose presence is required to perform, or is associated with the performance of, a governmental function as described in Section 40125 of Title 49 of the United States Code.

“Taxes” means any taxes, levies, imposts, duties, charges, fees, deductions, withholdings, restrictions or conditions now or hereafter imposed by any governmental or taxing authority.

“Term” means a period of one hundred sixty-five (165) calendar days from the Commencement Date.

“Total Daily Rental Payment” means the total daily standby cost for all Aircraft and equipment as identified in Appendix 3 Compensation, Section 1.2.

## **2. AGREEMENT TO LEASE**

Subject to, and in accordance with, the terms and conditions of this Public Aircraft Agreement, CAI agrees to lease the Aircraft to OCFA and OCFA agrees to take the Aircraft on lease from CAI for the Term.

## **3. LEASE AND DELIVERY**

### **3.1 Delivery and Acceptance**

OCFA has determined that the Aircraft is suitable for OCFA's intended use, and OCFA has inspected the same and accepts the same for purposes of this Public Aircraft Agreement.

### **3.2 OCFA SELECTION OF AIRCRAFT**

OCFA REPRESENTS AND WARRANTS TO CAI THAT OCFA HAS USED ITS OWN JUDGMENT IN SELECTING THE AIRCRAFT AND HAS DONE SO BASED ON THEIR SIZE, DESIGN, TYPE AND PERFORMANCE AND THAT OCFA HAS NOT RELIED ON ANY ADVICE OF CAI IN MAKING SUCH SELECTION.

### **3.3 Title**

Title to the Aircraft will be and will at all times remain vested and registered in Owners. OCFA will have no right, title or interest in the Aircraft except as provided in this Public Aircraft Agreement. OCFA will not assert any lien or encumbrance against the Aircraft, nor permit any other party, claiming by through, on behalf of, or because of any action of OCFA to do so.

### **3.3 Term**

The Aircraft shall be exclusively leased to OCFA from the execution of this Public Aircraft Agreement to the end of the Term, unless earlier terminated as provided herein.

## **4. PUBLIC AIRCRAFT**

### **4.1 Status of Operations as Public Aircraft Operations**

The Aircraft shall be operated under this Public Aircraft Agreement as Public Aircraft. The Aircraft shall only be used during the Term for Governmental Functions and all persons carried on board the Aircraft shall be either a crewmember or a Qualified Non-Crewmember.

### **4.2 Public Aircraft Determination**

OCFA shall provide CAI with the Public Aircraft Declaration and otherwise cooperate with CAI in providing any additional documentation or declarations as may be requested by the FAA or such other government agency whether Federal or State with jurisdiction over the operations contemplated in this Public Aircraft Agreement. Upon receipt of the Public Aircraft Declaration signed by OCFA, CAI shall, in advance of any operation of any flight under this Public Aircraft Agreement, notify the FAA Flight Standards District Office having oversight of the operations under this Public Aircraft Agreement that it has contracted with OCFA to conduct eligible public aircraft operations, and submit the Public Aircraft Declaration. Notwithstanding any other provision herein, CAI shall not be required to perform any operations under this Public Aircraft Agreement prior to receipt by CAI of the Public Aircraft Declaration and submission of the same to the FAA.

## **5. CREW AND PILOT REQUIREMENTS**

### **5.1 Crew Operation**

The Aircraft will be exclusively operated and maintained by the Crew arranged and supplied by CAI. OCFA shall provide ground crews for remote operations of the Aircraft.

### **5.2 Pilot Requirements**

CAI shall provide two (2) pilots and one (1) Flight Engineer for operation by the Aircraft during Day Operations, and two (2) pilots and one (1) Flight Engineer for the Aircraft during Night Operations. All pilots for Day Operations shall be United States Forest Service or CAL FIRE carded pilots.

All pilots for Night Operations shall be FAA certified for Night Vision Goggles flying and United States Forest Service or CAL FIRE carded pilots.

### **5.3 Mechanic Requirements**

CAI shall provide four (4) mechanics for operation by the Aircraft during Day Operations and four (4) mechanics for operations of the Aircraft during Night Operations.

### **5.4 Ground Crew Requirements**

CAI shall provide sufficient ground crew to drive and deploy the mobile support base (Prevost Bus). CAI shall provide ground crew to operate the fuel truck and spares trailer for the aircraft during both Day and Night Operations.

## **6. SCOPE OF WORK AND FLIGHTS**

### **6.1 Flight Missions**

Operations of the Aircraft shall be available for both Day and Night Operations. All operations shall be conducted in support of and as part of OCFA's Governmental Functions related to firefighting, and shall be in accordance with operating rules applicable to all aircraft in the National Airspace System. Notwithstanding any other provision herein, CAI provided pilots shall exercise fully authority as pilot-in-command over each flight and shall have no obligation to perform any mission on behalf of OCFA, which, in the sole discretion of the CAI provided pilots, is beyond the scope of such pilots' abilities, certification, or authorization; or would unreasonably endanger such pilot or the Aircraft; or would be in contravention of any applicable law or any flight operation protocol. No such action of any pilot provided by CAI shall create or support any liability of CAI for loss, injury, damage or delay to OCFA.

### **6.2 Aircraft Maintenance and Airworthiness**

The Aircraft shall be maintained exclusively by the mechanics provided by CAI and shall be maintained in conformance with each Aircraft's FAA approved maintenance manual. OCFA will not make or authorize any improvement, change, addition or alteration to either Aircraft without the express consent and agreement of CAI. All repairs, parts, replacements, mechanisms and devices added to the Aircraft during the Term shall immediately, without further act, become part of the Aircraft and subject to the ownership of Owners free and clear of any lien, encumbrance, or interest of OCFA or any party, claiming by through, on behalf of, or because of any action of OCFA.

### **6.3 Base of Operations**

OCFA will provide storage and other facilities as a base of operation at Los Alamitos Joint Forces Training Base in Orange County, sufficient for purposes of the scope of work contemplated by this Public Aircraft Agreement and shall provide CAI with access and permissions at such base of operation for the performance of the contemplated scope of work.

## **7. RENTAL PAYMENTS AND EXPENSES**

### **7.1 Rental Payments**

CAI shall invoice OCFA for Total Daily Rental Payment on a weekly basis, which shall begin accruing on the Commencement Date and continue through the end of the Term. OCFA shall pay the invoice (in full and without any deduction or withholding in respect of set-off, counterclaim, duties, taxes or other charges) within fourteen (14) days of receipt of invoice via ACH as follows:

Coulson Aviation (USA) Inc

Wells Fargo Bank, 1900 Southwest 5<sup>th</sup> Avenue, Portland, Oregon 97201

Routing Number:

Account Number:

## **7.2 Operating Expenses**

CAI shall invoice OCFA for Flight Hour Payments on a weekly basis. OCFA shall pay the invoice (in full and without any deduction or withholding in respect of set-off, counterclaim, duties, taxes or other charges) within fourteen (14) of receipt of invoice via ACH as follows:

Coulson Aviation (USA) Inc

Wells Fargo Bank, 1900 Southwest 5<sup>th</sup> Avenue, Portland, Oregon 97201

Routing Number:

Account Number:

## **7.3 Late Payments**

Any late payment shall bear per diem interest from the due date, until the date paid at an annual rate of 10%. Payment of interest shall not excuse or cure any default.

## **7.4 Taxes**

All payments, including specifically the Rental Payments made by OCFA hereunder, shall be made free and clear of, and without deduction for Taxes. OCFA shall be solely responsible for the payment of any Taxes imposed on the lease and services provided under this Public Aircraft Agreement. OCFA shall indemnify and hold harmless CAI from and against all taxes payable by them at any time in respect of this Public Aircraft Agreement in respect of any transaction contemplated by this Public Aircraft Agreement; provided that in no event shall OCFA be responsible for Taxes that are imposed on the net income, profit, gains, capital or net worth of CAI, or Taxes arising out of or solely attributable to the fraud, willful misconduct, or reckless disregard (with knowledge of the probable consequences) of CAI.

# **8. INSURANCE, INDEMNIFICATION, AND WAIVER**

## **8.1 Insurance**

(a) CAI shall maintain at all times, naming OCFA and the Owner(s) as additional insureds, during the Term (i) public liability insurance (including, but not limited to, aviation liability) against liability to third parties, including passengers and crew on the Aircraft, for personal injury and death and damage to property for a minimum amount and terms set out in the Insurance Schedule for each and every occurrence, and (ii) appropriate insurance against loss of, or damage to, the Aircraft hull for an amount reflecting reasonable replacement value of the Aircraft as provided in the Insurance Schedule.

(b) Each party shall be responsible for providing workers' compensation insurance and unemployment insurance for its employees and crew members provided by it for performance of this Public Aircraft Agreement as required by applicable laws

## **8.2 Indemnification**

CAI agrees to indemnify, protect, save, defend (with counsel acceptable to OCFA) and keep harmless OCFA and OCFA's directors, officers, employees, agents, attorneys, affiliates, successors, and any any permitted assigns (collectively, the "Indemnified Parties") on, a net after-tax basis, from and against any and all liabilities, obligations, losses, damages, penalties, claims, actions, suits, demands, cost, expenses, and disbursements (including without limitation reasonable legal fees and expenses) of any kind and nature whatsoever (collectively "Claims"), which may be imposed on, incurred by, or asserted against, any of OCFA's Indemnified Parties, whether or not any of OCFA's Indemnified Parties shall also be indemnified as to any such matters by any other person, party or entity of any kind whatsoever, in any way relating to or arising out of any breach, action, inaction, misrepresentation, or direction by CAI related to the performance or support of the operations contemplated herein that results in any Claim(s) against one of OCFA's Indemnified Parties; provided that CAI shall have no obligation to indemnify OCFA or any of OCFA's Indemnified Parties in respect of any Claims to the extent that such Claim is suffered or incurred as a direct consequence of the fraud, willful misconduct or reckless disregard of OCFA or such Indemnified Party. CAI's obligation to defend, indemnify, and hold OCFA and OCFA's Indemnified Parties harmless under the provisions of this Section 8.2 are not limited to, or restricted by, any requirement in this Agreement for CAI to procure and maintain a policy of insurance. Notwithstanding anything to the contrary contained in the foregoing, any other section of this Public Aircraft Agreement or otherwise, the indemnification agreements, obligations and liabilities of any kind whatsoever of CAI set forth or provided in this Section 8.2 shall survive the expiration or termination of this Public Aircraft Agreement for any reason whatsoever.

## **9. MUTUAL REPRESENTATIONS**

CAI and OCFA represent to each other:

- (i) The execution, delivery and performance of this Public Aircraft Agreement has been duly authorized by all necessary corporate or government action of such party and do not require the approval or consent of or notice to any trustee or holders of any indebtedness or obligations of such party (except as has already been obtained);
- (ii) This Public Aircraft Agreement has been duly executed and delivered by an officer of such party authorized to execute and deliver such documents on behalf of such party; and
- (iii) This Public Aircraft Agreement and covenants of such party contained herein and therein constitute or will, upon execution, constitute legal, valid and binding obligations of such party, enforceable against such party in accordance with its terms subject to applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and similar laws affecting creditors' rights generally

and by the application of equitable principles by courts of competent jurisdiction, sitting at law or in equity.

## 10. NOTIFICATION

Any notice given by one party to the other in connection with this Agreement shall be in writing and shall be sent by email, telefax, courier, overnight delivery, certified mail, to the addresses listed below or to such other addresses as either party may specify to the other in writing from time to time:

<p>If to OCFA, addressed to:</p> <p>Brian Fennessy Fire Chief 1 Fire Authority Road Irvine, CA 92602</p> <p>Fax: (714) 368-8800 Email: <a href="mailto:brianfennessy@ocfa.org">brianfennessy@ocfa.org</a></p> <p>With a Copy to:</p> <p>David Kendig c/o Woodruff, Spradlin &amp; Smart 555 Anton Boulevard, Suite 1200 Costa Mesa, CA 92626</p> <p>Fax: (714) 415-1183 Email: <a href="mailto:dkendig@wss-law.com">dkendig@wss-law.com</a></p>	<p>If to CAI, address to:</p> <p>Wayne Coulson President &amp; CEO 4890 Cherry Creek Road Port Alberni, BC Canada V9Y 8E9</p> <p>Fax: (250) 723-7766 Email: <a href="mailto:wayne.coulson@coulsongroup.com">wayne.coulson@coulsongroup.com</a></p>
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Notices shall be deemed effective when delivered or when proof of delivery is obtained (in the case of email, when the sender receives a read receipt from the addressee), or if earlier and whether or not received, three (3) days after such notice is deposited in the United States mail postage pre-paid as certified mail to the party as set forth above.

## 11. TERMINATION AND DEFAULT

### 11.1 Default

The following shall constitute an Event of Default:

- (i) a failure to make any payment when due hereunder within three (3) calendar days of when such payment is due;
- (ii) party's admission in writing of inability to pay its debts generally as they come due or a general assignment for the benefit of its creditors, or admission of insolvency;

(iii) any declaration, representation, warranty or statement made or deemed to be made by a party in connection with this Public Aircraft Agreement is or proves to have been incorrect when made or becomes incorrect during the Term; or  
(iv) any material breach by a party of its obligations or performance under this Public Aircraft Agreement.

### **11.2 Remedies**

In an Event of Default, the non-defaulting party may immediately terminate this Public Aircraft Agreement upon sending notification to the other party, and/or seek any and all such remedies and rights as may be available to such party at law or equity.

## **12. MISCELLANEOUS**

### **12.1 Binding Effect**

This Public Aircraft Agreement shall be binding upon and shall inure to the benefit of the parties and their respective heirs, executors, administrators, successors, legal representatives and assigns provided that this provision shall not be construed as permitting assignment or substitution except as otherwise provided herein.

### **12.2 Execution**

Delivery of an executed counterpart of a signature page of this Agreement by email or any other digital or electronic means shall be effective as delivery of a manually executed counterpart of this Public Aircraft Agreement.

### **12.3 Severability**

In the event that any condition, covenant or other provision herein contained is held to be invalid or void by any court of competent jurisdiction, the same shall be deemed severable from the remainder of this Lease and shall in no way affect any other covenant or condition herein contained. If such condition, covenant or other provision shall be deemed invalid due to its scope or breadth, such provision shall be deemed valid to the extent of the scope or breadth permitted by law.

### **12.4 Clauses, Appendices And Schedules**

References in this Public Aircraft Agreement to clauses, appendices, or schedules are, unless otherwise specified, references to clauses of and appendices and schedules to this Public Aircraft Agreement and together the clauses, appendices and schedules shall together constitute this Public Aircraft Agreement.

### **12.5 Assignment**

No assignment, transfer or charge may be made by any party of all or any of its rights in respect of this Public Aircraft Agreement without the prior written consent of the other.

**12.6 GOVERNING LAW**

THIS PUBLIC AIRCRAFT AGREEMENT SHALL, IN ALL RESPECTS, INCLUDING ALL MATTERS OF CONSTRUCTION, VALIDITY AND PERFORMANCE, BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA APPLICABLE TO CONTRACTS ENTERED INTO IN THE STATE OF CALIFORNIA BY RESIDENTS OF SUCH STATE AND TO BE PERFORMED ENTIRELY WITHIN SUCH STATE. LEGAL ACTIONS CONCERNING ANY DISPUTE, CLAIM OR MATTER ARISING OUT OF OR IN RELATION TO THIS PUBLIC AIRCRAFT AGREEMENT SHALL BE INSTITUTED IN THE SUPERIOR COURT OF THE COUNTY OF ORANGE, STATE OF CALIFORNIA, OR ANY OTHER APPROPRIATE COURT IN SUCH COUNTY, AND CAI COVENANTS AND AGREES TO SUBMIT TO THE PERSONAL JURISDICTION OF SUCH COURT IN THE EVENT OF SUCH ACTION.

IN WITNESS WHEREOF, CAI and OCFA have each caused this Public Aircraft Agreement to be duly executed and delivered by each of CAI and OCFA on the date first above written.

**COULSON AVIATION (USA) INC.**

Name:  
Title:

**ORANGE COUNTY FIRE AUTHORITY**

Name:  
Title:

## Insurance Schedule

Appendix 1

[on OCFA letterhead]

[insert date]

COULSON AVIATION (USA) INC.

Attn:

**Re: Public Aircraft Declaration**

Dear Mr. \_\_\_\_\_:

As you know, the **ORANGE COUNTY FIRE AUTHORITY (OCFA)**, a joint powers agency created pursuant to the California Joint Exercise of Powers Act (Gov't Code §§ 6500 et seq.) and comprised of 23 member agencies, each of which are a political subdivision of the State of California, entered into a contract (Public Aircraft Agreement) dated September 24, 2020 with **COULSON AVIATION (USA) INC. (CAI)** under which CAI will exclusively lease the **[describe aircraft]** to OCFA and provide the exclusive services of such aircraft for a governmental function such as intelligence missions, firefighting, or biological or geological resource management of OCFA during the term of such Public Aircraft Agreement, which is ninety (90) calendar days. We hereby declare that under Title 49 of the United States Code and in accordance with FAA Notice of Policy Regarding Civil Aircraft Operators Providing Contract Support to Government Entities (Public Aircraft Operations) published on March 23, 2011 in the Federal Register, and FAA Advisory Circular No. 00-1B, the governmental functions and the operations contemplated by the Public Aircraft Agreement qualify as Public Aircraft Operations (PAO). As such, we acknowledge that we have to provide this declaration to that effect, which CAI in turn shall provide to the FAA, prior to commencement of operations under the Public Aircraft Agreement. Below is information in support of this declaration, which is intended to apply to all flights operated by CAI pursuant to the Public Aircraft Agreement.

**Name of civil operator (the contracted operator):** Coulson Aviation (USA) Inc.**Aircraft type(s) to be used for the PAO:** *[describe aircraft]***Name of aircraft owner(s):** *[reference registered owner of Aircraft]***Aircraft registration number(s):** *[registration marks]***Date of contract:****Date of proposed first flight as a PAO:****Date contract terminates:****Name of the government entity declaring public aircraft status (the government entity contracting for aircraft services):** ORANGE COUNTY FIRE AUTHORITY**Name, title, and contact information for the government official making the declaration of PAO status:**

**Nature of operations (include enough detail to demonstrate that the flights are for a governmental function under the statute):** The Aircraft will be dedicated exclusively during the 90-day term of the Public Aircraft Agreement to providing intelligence missions, firefighting, biological or geological resource management within the boundaries of the Orange County Fire Authority and Southern California Edison service territory.

Should there be any questions or if additional information is needed, please feel free to contact me.

Sincerely,

[insert signatory and title]

## Compensation

1. Daily Rental: the following are Aircraft, equipment and associated rates, are provided by CAI to OCFA for the Public Aircraft Agreement for the respective durations noted below.

## 1.1 Aircraft Daily Rental Rate

- I. One (1) CH-47 Very Large Helitanker (VLHT) & support (fuel truck, bus, etc.)
  - a) Daily standby rate (24-hours) for 137 days: \$33,600 USD
- II. One (1) S76 NVG capable helicopter coordinator platform & support (fuel, etc.)
  - a) Daily standby rate (24-hours) for 165 days: \$10,500 USD
- III. One (1) S-61 NVG Type I Helitanker & support (fuel, etc.)
  - a) Daily standby rate (24-hours) for 28 days: \$22,050 USD

- 1.2 Total Daily Rental Payment: The Total Daily Rental Payment for the first 137 days of the Public Aircraft Agreement is \$44,100 USD per day. The Total Daily Rental Payment for the final 28 days of the Public Aircraft Agreement is \$32,550 USD per day. The Total Daily Rental Payment includes all Aircraft Daily Rental Rates as identified in section 1.1.

- 2 Aircraft Flight Hour Payment: the total cost per hour for Aircraft Flight Hour Payment is

- I. For the CH-47D \$9,007 per hour, (Agency Responsibility). The cost of which includes fuel.
- II. For the S76 NVG \$3,841 per hour, (Agency Responsibility). The cost of which includes fuel.
- III. For the S-61 Type I Helitanker \$5,420 per hour, (Agency Responsibility). The cost of which includes fuel.

- 2.2 CAI and OCFA agree to discuss the rate for Aircraft Flight Hour Payment at any point the price of fuel fluctuates by more than 10%.

Table 1 Aircraft

Aircraft Make & Model	FAA Registration Number	Manufacture Number	Rate with Pilot	Standby Rate
Boeing CH-47D	N42CU	91-00270	\$9,007	\$33,600
Sikorsky S-76	N76CG	760355	\$3,841	\$10,500
Sikorsky S-61	N261CG	61257	\$5,420	\$22,050
Large Support Vehicle (fuel truck, bus, service trailer) Mileage Rate:				\$4.43
OPTIONAL (as requested): BlazeTamer Retardant Gel				Open Book Cost plus 15%

## OCFA Sole Source Request Form

*The Purchasing Ordinance of the Orange County Fire Authority requires competitive bids and proposals for service and commodity contracts. A sole source is defined as a product or service that is available from only one known supplier as a result of unique performance capabilities, manufacturing processes, compatibility requirements or market conditions. The using department requesting a sole source shall provide written clear and convincing evidence to support a sole source determination, meaning that only one source exists to fulfill the requirements. This form is to be submitted with the purchase requisition to Purchasing with any sole source requests.*

### SECTION I - INSTRUCTIONS

1. Written justification on this form will be completed by the requesting department and submitted with the purchase requisition.
2. The request must be approved by the section manager and assistant chief prior to submitting the request to the purchasing manager.
3. All sole source forms must be submitted to the Purchasing Manager for approval. Based on the new ordinance the Fire Chief is not required to approve the sole source form. The sole source request may be submitted to Assistant Chief of Business Services by the Purchasing Manager for concurrence as required.
4. All sole source contracts exceeding \$50,000 annually require Executive Committee approval. In this case, the sole source request form must be submitted to the Executive Committee as an attachment to the staff report.
5. The approved sole source justification form will be included in the contract file.

### SECTION II – REQUEST INFORMATION

<b>Department/Section:</b> Special Operations	<b>Requested By:</b> Tim Perkins	<b>Date:</b> 6/2/2022
<b>Recommended Vendor:</b> Coulson Aviation (USA) Inc. (CAI)	<b>Vendor Contact:</b> Curtis Bruner	<b>Vendor's E-mail Address:</b> curtis.bruner@coulsonaircrane.com
<b>Vendor Address:</b> 610 SW Alder Street, Suite 910, Portland, Oregon 97205		<b>Vendor's Telephone #:</b> (250) 724-7664
<b>Type of Contract:</b> <input type="checkbox"/> One-time <input checked="" type="checkbox"/> Multi-Year <input type="checkbox"/> Renewal <input type="checkbox"/> Amendment <input type="checkbox"/> Increase	<b>Contract Term (Dates):</b> June 24, 2022 - December 6, 2022	
<b>Contract Amount:</b> \$7,974,110		<b>Attachments:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>If the contract type is a Renewal, Amendment or Increase, please provide previous contract information with this request (PO, BO, previous approval date, Chief approval or EC approval, and dollar amount).</b>		

### SECTION III – JUSTIFICATION

1. Provide a detailed description of the product or service requested. Describe what it is. *Attach additional sheet if necessary.*

CAI provides Night Aerial Firefighting services which utilize advanced technology in firefighting aircraft that will be utilized in the multi-county Quick Reaction Force (QRF) program. The program includes multiple types of helitankers and aerial supervision aircraft which fill the void left when fixed-wing air tankers retire for the night. The QRF aircraft are able to drop water or fire retardant at night.

2. Please state why the recommended vendor is the only one capable of providing the required services and/or commodities. Provide a summary of findings (research and analysis) including any supporting documentation which validates your recommendation (e.g., attach a manufacturer's letter verifying patented design and direct sale with no distributors) and demonstrates the sole source nature of this request. *Attach additional sheet if necessary.*

In conjunction with the Ventura County Fire Department, staff developed and issued Request for Statements of Qualifications SK2554a as the first step in an anticipated two-step solicitation process to select an aircraft provider. Only one response was received, submitted Coulson Aviation (USA) Inc. An evaluation panel scored the SOQ and deemed

**SECTION III – JUSTIFICATION (continued)**

the Offeror "Qualified". Because only one SOQ was received, staff determined in conjunction with legal counsel that the best course of action would be to cancel the planned Phase Two RFP and move forward with Coulson as a General Sole Source. Ventura elected to do the same.

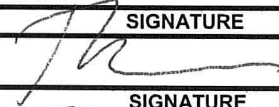

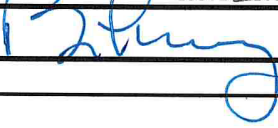
**3. Pricing - What efforts were made to get the best pricing (e.g., did you simply request a quote, negotiate with the vendor, did the vendor provide a discount)? Please provide the quote with your sole source request.**

The pricing includes 24/7 availability for up to 165 days. This contract is a result of collaboration between Coulson Aviation, SCE, OCFA, and Ventura counties in an effort to bring services and funding together for the benefit of the residents of Orange County and the partner counties to protect in the event of a wildfire during fire season. SCE is providing funding for the daily fixed standby costs.

**4. Will this purchase obligate the OCFA to future purchases (maintenance, licensing or continuing needs)?**  
(If yes, please explain how and what the future costs will be.)

The 222 QRF services are intended to have a duration of 165 days, with the option to extend for two additional program terms at the sole discretion of OCFA pending additional funding from SCE.

**Sole Source Request Submitted by:**

REQUESTORS NAME	SIGNATURE	DATE
Tim Perkins		06-06-22
DIVISION DEPUTY CHIEF/MANAGER NAME	SIGNATURE	DATE
Kenny Dossey		6/6/22
ASSISTANT CHIEF NAME	SIGNATURE	DATE
Brian Fennessy		6/8/22

**Purchasing Manager's Comments:**

After conducting a "good faith review of available sources" per OCFA Ordinance 009 (SK2556a), CAI is the only available source for the requested services. Pricing deemed reasonable in comparison with available public data for similar aircraft contracted for by the USFS.

PURCHASING MANAGER'S APPROVAL	DATE
	6/8/2022
ASSISTANT CHIEF BUSINESS SERVICES CONCURRENCE	DATE
	6/8/22

Executive Committee Approval Required ☒ Yes ☐ No Sole Source over \$50,000

Executive Committee Approved: ☐ Yes ☐ No Date approved \_\_\_\_\_

**ORANGE COUNTY FIRE AUTHORITY  
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement") is made and entered into this 23<sup>rd</sup> day of June, 2022 by and between the Orange County Fire Authority, a public agency, hereinafter referred to as "OCFA", and Perimeter Solutions LP, hereinafter referred to as "Firm". OCFA and Firm are sometimes individually referred to herein as a "Party" and collectively as the "Parties".

**RECITALS**

WHEREAS, OCFA requires the services of a qualified firm to provide mobile retardant base services, hereinafter referred to as "Project"; and

WHEREAS, Firm has submitted to OCFA a proposal dated January 21, 2022, incorporated herein by this reference ("Proposal"); and

WHEREAS, based on its experience and reputation, Firm is qualified to provide the necessary services for the Project and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Firm for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby employ Firm and Firm agrees to provide professional services as follows:

**AGREEMENT**

**1. PROFESSIONAL SERVICES**

**1.1 Scope of Services**

In compliance with all terms and conditions of this Agreement, Firm shall provide those services specified in the Scope of Services, attached hereto as Exhibit "A", which includes by reference and by addendum: (1) Firm's Proposal, and (2) any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto ("Services" or "Work"). Firm warrants that all Services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the same profession in the State of California. Firm represents and warrants that it and all employees, subconsultants and subcontractors providing any Services pursuant to this Agreement shall have a sufficient skill and experience to perform the Services. All Services shall be completed to the reasonable satisfaction of the OCFA. In

the event of any inconsistency between the terms contained in the Scope of Services, and/or the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement and then the Scope of Services shall govern, in that order.

## **1.2 Compliance with Law**

All Services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

## **1.3 Licenses and Permits**

Firm shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the Services required by this Agreement.

## **1.4 Familiarity with Work**

By executing this Agreement, Firm warrants that Firm (a) has thoroughly investigated and considered the Work to be performed, (b) has investigated the site of the Work and become fully acquainted with the conditions there existing, (c) has carefully considered how the Work should be performed, and (d) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Agreement. Should the Firm discover any latent or unknown conditions materially differing from those inherent in the Work or as represented by OCFA, Firm shall immediately inform OCFA of such fact and shall not proceed with any Work except at Firm's risk until written instructions are received from the Contract Officer.

## **1.5 Care of Work**

Firm shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

## **1.6 Additional Services**

Firm shall perform services in addition to those specified in the Scope of Services when directed to do so in writing by the OCFA Purchasing Manager, provided that Firm shall not be required to perform any additional services without compensation. Any additional compensation not exceeding one-hundred thousand dollars (\$100,000) annually must be approved in writing by the OCFA Purchasing Manager. Any greater

increase must be approved in writing by the Executive Committee of the OCFA Board of Directors.

## **2. TIME FOR COMPLETION**

The time for completion of the Services to be performed by Firm is an essential condition of this Agreement. Firm shall prosecute regularly and diligently the work of this Agreement according to the schedules set forth in Firm's proposal. Firm shall not be accountable for delays in the progress of its work caused by any condition beyond its control and without the fault or negligence of Firm. Delays shall not entitle Firm to any additional compensation regardless of the party responsible for the delay.

## **3. COMPENSATION OF FIRM**

### **3.1 Compensation of Firm**

For the Services rendered pursuant to this Agreement, Firm shall be compensated and reimbursed per the Scope of Work, attached hereto as Exhibit "A".

### **3.2 Method of Payment**

In any month in which Firm wishes to receive payment, Firm shall no later than the first working day of such month, submit to OCFA in the form approved by OCFA's Director of Finance, an invoice for Services rendered prior to the date of the invoice. OCFA shall pay Firm for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within thirty (30) days of receipt of Firm's invoice.

### **3.3 Changes**

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Firm's profession.

### **3.4 Appropriations**

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

## **4. PERFORMANCE SCHEDULE**

### **4.1 Time of Essence**

Time is of the essence in the performance of this Agreement.

### **4.2 Schedule of Performance**

All Services rendered pursuant to this Agreement shall be performed within the time periods prescribed in Firm's Proposal, attached hereto as Exhibit "A". The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

### **4.3 Force Majeure**

The time for performance of Services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Firm, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Firm shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the Services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

### **4.4 Term**

This Agreement shall continue in full force and effect during the period from June 24 through December 6, 2022 unless earlier terminated in accordance with Sections 8.5 or 8.6 of this Agreement.

## **5. COORDINATION OF WORK**

### **5.1 Representative of Firm**

The following principal of the Firm is hereby designated as being the principal and representative of Firm authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: **Guy Clancy or Eric Clancy.**

It is expressly understood that the experience, knowledge, capability and reputation of the foregoing principal is a substantial inducement for OCFA to enter into this Agreement. Therefore, the foregoing principal shall be responsible during the term of this Agreement for directing all activities of Firm and devoting sufficient time to personally supervise the Services hereunder. The foregoing principal may not be changed by Firm without the express written approval of OCFA.

### **5.2 Contract Officer**

The Contract Officer shall be Tim Perkins, unless otherwise designated in writing by OCFA. It shall be the Firm's responsibility to keep the Contract Officer fully informed of the progress of the performance of the Services and Firm shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

### **5.3 Prohibition Against Subcontracting or Assignment**

**5.3.1 No Subcontracting Without Prior Approval.** The experience, knowledge, capability and reputation of Firm, its principals and employees, and the Firm Representative were a substantial inducement for OCFA to enter into this Agreement. Therefore, other than Firm's customary use of HRC personnel, Firm shall not contract with any other entity to perform in whole or in part the Services required hereunder without the express written approval of OCFA.

**5.3.2 Provisions in the Event Subcontractor(s) Are Authorized.** If Firm is authorized to subcontract any part of the Services as provided in Section 5.3.1, Firm shall be responsible to OCFA for the acts and omissions of its subcontractor(s) and subconsultant(s) in the same manner as it is for persons directly employed. For purposes of this Agreement, all persons engaged in the performance of Services will be considered employees of Firm. OCFA will deal directly with and will make all payments to Firm. Nothing contained in this Agreement shall create any contractual relationships between any subcontractor and OCFA. Firm shall ensure that all subcontractor insurance requirements set forth in Section 6 below (including its subsections) are complied with prior to commencement of Services by each subcontractor.

**5.3.2.1 Withholding Payment for Non-Authorized Subcontractors.** OCFA shall have the right to withhold payment from Firm for Services performed by any subcontractor or subconsultant performing Services but not authorized in writing by OCFA, or regarding which the insurance or other requirements under this Agreement have not been satisfied.

**5.3.3 Assignments.** Neither this Agreement nor any interest herein may be assigned, transferred, conveyed, hypothecated, or encumbered voluntarily or by operation of law, whether for the benefit of creditors or otherwise, without the prior written approval of OCFA. Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty five percent (25%) of the present ownership and/or control of Firm, taking all transfers into account on a cumulative basis. In the event of any such unapproved transfer, including any bankruptcy proceeding, this Agreement shall be void. No approved transfer shall release Firm or any surety of Firm from any liability hereunder without the express written consent of OCFA.

#### **5.4 Independent Contractor**

**5.4.1** The legal relationship between the Parties is that of an independent contractor, and nothing herein shall be deemed to make Contractor, or any of its personnel, an OCFA employee. During the performance of this Agreement, Firm and its officers, employees, and agents shall act in an independent capacity and shall not act as OCFA officers or employees. Firm will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. The personnel performing the Services under this Agreement on behalf of Firm shall at all times be under Firm's exclusive direction and control. Neither OCFA nor any of its officials, officers, employees, agents or volunteers shall have control over the conduct of Firm or any of its officers, employees, or agents, except as set forth in this Agreement. Firm, its officers, employees or agents, shall not maintain a permanent office or fixed business location at OCFA's offices. OCFA shall have no voice in the selection, discharge, supervision, or control of Firm's officers, employees, representatives or agents or in fixing their number, compensation, or hours of service. Firm shall pay all wages, salaries, and other amounts due its employees in connection with the performance of Services under this Agreement and shall be responsible for all reports and obligations respecting them, including but not limited to social security income tax withholding, unemployment compensation, workers' compensation, and other similar matters. OCFA shall not in any way or for any purpose be deemed to be a partner of Firm in its business or otherwise a joint venturer or a member of any joint enterprise with Firm.

**5.4.2** Firm shall not incur or have the power to incur any debt, obligation, or liability against OCFA, or bind OCFA in any manner.

**5.4.3** No OCFA benefits shall be available to Firm, its officers, employees, or agents, in connection with the performance of any Work or Services under this Agreement. Except for professional fees paid to Firm as provided for in this Agreement, OCFA shall not pay salaries, wages, or other compensation to Firm for the performance of any Work or Services under this Agreement. OCFA shall not be liable for compensation or indemnification to Firm, its officers, employees, or agents, for injury or sickness arising out of performing any Work or Services hereunder. If for any reason any court or governmental agency determines that the OCFA has financial obligations, other than pursuant to Section 2 herein, of any nature relating to salary, taxes, or benefits of Firm's officers, employees, representatives, agents, or subconsultants or subcontractors, Firm shall defend, indemnify, and hold harmless OCFA from and against all such financial obligations.

## **5.6 Employee Retirement System Eligibility Indemnification**

**5.6.1** In the event that Firm or any employee, agent, or subcontractor of Firm providing any Work or Services under this Agreement claims or is determined by a court of competent jurisdiction to be eligible for enrollment in an employee retirement system as an employee of the OCFA, Firm shall indemnify, defend, and hold harmless OCFA against: (1) all such claim(s) and determination(s); (2) for the payment of any employee and/or employer contributions for employee retirement system benefits on behalf of Firm or its employees, agents or subcontractors; and (3) the payment of any penalties and interest on such contributions which would otherwise be the responsibility of the OCFA.

**5.6.2** Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing any Work or Services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by OCFA, including but not limited to eligibility to enroll in an employee retirement system as an employee of OCFA and entitlement to any contribution to be paid by OCFA for employer contribution and/or employee contributions for employee retirement system benefits.

## **6. INSURANCE AND INDEMNIFICATION**

**6.1 Compliance with Insurance Requirements.** Firm shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Firm shall not commence any Services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Firm's existing insurance policies do not meet the insurance

requirements set forth herein, Firm agrees to amend, supplement or endorse the policies to meet all requirements herein.

**6.2           Types of Insurance Required.** Without limiting the indemnity provisions set forth in this Agreement, Firm shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

**6.2.1 Omitted**

**6.2.2 Commercial General Liability Insurance.** Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, Insurance Services Office (ISO) Form CG 00 01 covering CGL on an “claims made” basis, including property damage, bodily injury and personal & advertising injury with limits no less than one million dollars (\$1,000,000.00) per occurrence and two million dollars (\$2,000,000.00) aggregate. If a general aggregate limit applies, the general aggregate limit shall be no less than two million dollars (\$2,000,000.00). Coverage for products and completed operations is required with limits no less than two million dollars (\$2,000,000.00) aggregate. Firm shall maintain CGL insurance with per-claim, aggregate and products and operations completed limits no lower than the minimum CGL coverage limits set forth above. Defense costs shall be paid in addition to the limits. The policy shall contain no endorsements or provisions limiting coverage for any of the following: (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) any other exclusion contrary to this Agreement.

For any coverage that is provided on a claims-made coverage form (which type of form is permitted only where specified in the insurance requirements outlined above): (i) The retroactive date must be shown, and must be before the date of this Agreement, and before the beginning of any Services related to this Agreement, (ii) Insurance must be maintained and Certificates of Insurance must be provided to OCFA for at least three (3) years after expiration of this Agreement; (iii) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of this Agreement or the start of any Services related to this Agreement, Firm must purchase an extended reporting period for a minimum of three (3) years after expiration of the Agreement; and (iv) If requested by OCFA, a copy of the policy’s claims reporting requirement must be submitted to the OCFA for review.

**6.2.3 Automobile Liability Insurance.** Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Automobile liability insurance written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) combined limit for each occurrence covering bodily injury, disease and property damage. Defense costs shall be paid in addition to the policy limits. The policy

shall specifically include coverage for owned, non-owned, leased, and hired automobiles, and be endorsed to eliminate any exclusion applicable to any of them.

**6.2.4 Workers' Compensation Insurance.** Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Workers' Compensation Insurance with limits no less than one million dollars (\$1,000,000.00), and in compliance with all other statutory requirements applicable in the State of California. Firm hereby waives on its own behalf, and shall obtain an endorsement from its workers' compensation insurer waiving on the insurance company's behalf, all rights of subrogation against the OCFA, its board members, officials, officers, employees, agents and volunteers.

**6.2.4.1** If subconsultants or subcontractors are used, Firm shall require each of its subconsultants and subcontractors, if any, to waive all rights of subrogation, and to obtain endorsements from the subconsultants'/subcontractors' workers' compensation insurers waiving all rights of subrogation, against the OCFA, its board members, officials, officers, employees, agents and volunteers.

**6.2.4.2** Firm and each of its subconsultants and subcontractors shall also maintain, in full force and effect throughout the term of this Agreement, Employer's Liability Insurance with limits of at least one million dollars (\$1,000,000.00) per injury or illness.

**6.2.5 Pollution Liability.** Firm shall provide pollution liability coverage that includes, but is not limited to, the coverage limits and coverage provisions outlined below. Coverage must be included for bodily injury and property damage, including coverage for loss of use and diminution in property value, and for resultant clean-up costs, arising out of the or resulting from: (i) any Services performed under this Agreement, including (ii) any storage or transportation, including the loading or unloading of, hazardous wastes, hazardous materials, or contaminants. The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following: \$1,000,000 per occurrence or claim, and \$1,000,000 aggregate. Coverage may be written on a claims-made form. If coverage is on a claims-made basis, the coverage must be maintained for at least 3 years after all Services performed under this Agreement are complete, and additional claims-made coverage requirements apply as described below. The policy(ies) shall also contain or be endorsed to contain a provision that coverage shall apply on a primary and noncontributory basis to OCFA before OCFA's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured. A severability of interests provision must apply for all the additional insureds, ensuring that Firm's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.

**6.3      Acceptability of Insurers.** Each insurance policy required by this section shall be issued by a licensed company authorized to transact business by the Department of Insurance for the State of California with a current rating of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI)), by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the Services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Firm agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA.

**6.3.1** Firm shall immediately replace any insurer whose A.M. Best rating drops below the levels specified herein with an insurer that meets the minimum requirements herein.

**6.4      Specific Insurance Provisions and Endorsements.** Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Firm shall provide endorsements on forms approved by the OCFA to add the following provisions to the insurance policies:

**6.4.1 CGL, Auto and Pollution Liability Endorsements.** The policy or policies of insurance required by this Agreement for CGL, Automobile and Pollution Liability Insurance shall be endorsed as follows:

**6.4.1.1 Additional Insured:** The OCFA, its board members, officials, officers, employees, agents and volunteers, shall be additional insureds; and

**6.4.1.1.1 Additional Insured Endorsements:** Additional insured endorsements shall not (1) be restricted to "ongoing operations", (2) exclude "contractual liability", (3) restrict coverage to "sole" liability of Firm, (4) contain any other exclusions contrary to the Agreement; or (5) contain special limitations on the scope of protection afforded to additional insureds.

**6.4.1.2 Primary, Non-Contributing.** Each CGL and Auto Liability insurance policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its board members, officials, officers, employees, agents or volunteers, shall not contribute with the primary insurance.

**6.4.2 Notice of Cancellation:** Each policy of any type shall

be endorsed to provide that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Firm's failure to pay the insurance premium, the notice provided by the insurer to OCFA shall be by not less than ten (10) days prior written notice. (A statement that notice will be provided "in accordance with the policy terms" or words to that effect is inadequate to meet the requirements of this Section).

**6.4.2.1 Pre-Payment of Policy Premium.** If for any reason an insurer declines to issue an endorsement certifying that it will notify OCFA in accordance with section 6.4.2, Firm shall either obtain insurance from another insurer who will provide the required notice endorsement or shall provide evidence satisfactory to OCFA that the entire policy premium for the full term of that policy has been pre-paid such that the risk of non-payment of premiums during the term of the policy has been eliminated.

**6.4.3 ACORD Forms Will Not Be Accepted in Lieu of Endorsements.** By executing this Agreement, Firm certifies that it has – prior to execution of this Agreement - confirmed that its insurance company will issue each of the endorsements required by this Agreement. Firm also certifies that it understands that "ACORD" Certificate of Liability Insurance forms will not be accepted in lieu of required endorsements.

**6.5 Deductibles and Self-Insured Retentions.** Any deductible or self-insured retention must be approved in writing by the OCFA in advance. The decision whether to approve or withhold approval of a deductible or self-insured retention shall be made by the OCFA in the OCFA's sole and absolute discretion. (Firm may request preapproval from OCFA of a deductible or self-insured retention prior to submitting Firm's Proposal). OCFA acknowledges that the Firm is subject to a \$250,000 deductible under its General Liability and Pollution Liability policies.

**6.6 Waiver of Subrogation.** All policies of Commercial General Liability and Automobile Liability Insurance shall contain or be endorsed to waive subrogation against the OCFA, its officials, officers, employees, agents and volunteers, or shall specifically allow Firm or others providing insurance evidence in compliance with the requirements set forth in this section to waive their right to recovery prior to a loss. Firm hereby agrees to waive its own right of subrogation against the OCFA, its officials, officers, employees, agents and volunteers.

**6.6.1 Waivers of Subrogation: Subconsultants and Subcontractors.** If OCFA approves the use of subconsultants or subcontractors for the performance of any portion of the Services, then Firm shall obtain from each

subconsultant and subcontractor, and make available to OCFA upon request, written express waivers by each subconsultant and subcontractor of the right of subrogation against the OCFA, its officials, officers, employees, agents and volunteers, and policy endorsements of each of its subconsultants' and subcontractors' insurance policies waiving any rights of subrogation against the OCFA, its officials, officers, employees, agents and volunteers insurer. All such waivers and endorsements shall be obtained prior to commencement of any Services by each subconsultant or subcontractor.

**6.7 Evidence of Coverage.** Concurrently with the execution of the Agreement, Firm shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required to be maintained by Firm by this Section 5. Firm shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

**6.7.1** Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval.

**6.7.2 Authorized Signatures.** The certificates of insurance and original endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

**6.7.3 Renewal/Replacement Policies.** At least fifteen (15) days prior to the expiration of any policy required by this Agreement, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Firm shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies meeting all requirements of this Agreement.

**6.8 Requirements Not Limiting.** Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. The insurance obligations under this Agreement shall be: (1) all the insurance coverage and/or limits carried by or available to Firm; or (2) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the OCFA. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Firm under this Agreement. Nothing

in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Consultant may be held responsible for losses of any type or amount.

**6.9 Enforcement of Agreement (Non-Estoppel).** Firm acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Firm of any non-compliance with any of the insurance requirements set forth in this Agreement imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

**6.10 Insurance for Subconsultants.** If OCFA approves the use of subconsultants or subcontractors for the performance of any portion of the Services, then Firm shall be responsible for causing each approved subconsultant and subcontractor to procure and maintain insurance in the same types and amounts required for Firm, and in full compliance with the insurance requirements set forth in this Agreement, except as otherwise authorized in writing by the Contract Manager.

**6.10.1 Delivery of Evidence of Subcontractor Insurance.** Upon request of OCFA, Firm shall deliver to OCFA all certificates of insurance and endorsements required from subcontractors and subconsultants. (Note: Firm's duty to obtain all required insurance for subcontractors and subconsultants required under this Agreement applies whether or not OCFA requests delivery of evidence of such coverage.)

**6.11 Other Insurance Requirements.** The following terms and conditions shall apply to the insurance policies required of Firm and its subconsultants and subcontractors, if any, pursuant to this Agreement:

**6.11.1** Firm shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled, suspended, or nonrenewed (2) the limits of any of the insurance coverages required herein are reduced; (3) any required insurance coverage is reduced below the required minimum limits through claims or otherwise, or (4) the deductible or self-insured retention is increased.

**6.11.2** All insurance coverage and limits required under this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

**6.11.3** None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

**6.11.4** Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay the Project. It is Firm's obligation to ensure timely compliance with all insurance submittal requirements as provided herein and Firm agrees to reimburse OCFA for any losses resulting from its failure, or its subconsultants' or subcontractors' failure, to timely comply with the requirements of this Agreement.

**6.11.5** Firm agrees to ensure that subconsultants and subcontractors, if any, and any other parties involved with the Project who are brought onto or involved in the Project by Firm, provide the same minimum insurance coverage required of Firm. Firm agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Firm agrees that upon request, all agreements with, and evidence of insurance from, subconsultants and subcontractors and others engaged in performing any Services will be submitted to the OCFA for review.

**6.11.6** Firm agrees to provide immediate written notice to OCFA of any claim, demand or loss arising out of the Services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to an amount less than required by this Agreement.

## **6.12 Indemnification.**

To the fullest extent permitted by law, Firm shall defend (at Firm's sole cost and expense with legal counsel reasonably acceptable to OCFA), indemnify and hold the OCFA, its board members, officials, officers, employees, agents and volunteers, free and harmless from any and all claims, demands, orders, causes of action, costs, expenses, liabilities, losses, penalties, judgments, arbitration awards, settlements, damages or injuries of any kind, in law or in equity, including but not limited to property or persons, including wrongful death, (collectively "Claims") in any manner arising out of, pertaining to, related to, or incident to any alleged acts, errors or omissions, or willful misconduct of Firm, its officers, directors, employees, subconsultants, subcontractors, agents or invitees in connection with performance under this Agreement, or in any manner arising out of, pertaining to, related to, or incident to an alleged breach of this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses.

Notwithstanding the foregoing, and only to the extent that the Services performed by Firm are subject to California Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Firm.

Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Firm's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, hold harmless and indemnify the OCFA, its board members officials, officers, employees, agents and volunteers, shall not apply to the extent that such Claims are caused by the sole negligence or willful misconduct of that indemnified party.

## **7. RECORDS AND REPORTS**

### **7.1 Reports**

Firm shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the Services required by this Agreement as the Contract Officer shall require.

### **7.2 Records**

Firm shall keep such books and records as shall be necessary to properly perform the Services required by this Agreement and upon 72-hours advance notice, enable the Contract Officer to evaluate the performance of such Services for the purpose of compliance with the terms and conditions included in this Agreement. Except as provided in Section 7.5, the Contract Officer shall have full and free access to such books and records, including the right to inspect, copy, audit and make records and transcripts from such records.

### **7.3 Omitted**

### **7.4 Release of Documents**

All drawings, specifications, reports, records, documents and other materials prepared by Firm in the performance of Services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

### **7.5 Confidential Materials**

Notwithstanding anything to the contrary in this Agreement, the Firm shall be the sole owner of Firm's work papers and of any other documents, data or information which are required to be maintained confidential from OCFA by one or more rules of professional conduct governing the Firm's profession(s) (collectively, the "Confidential Materials"). Neither the OCFA nor the Contract Officer shall have access to the Confidential Materials except as may otherwise be required by order issued by a court of competent jurisdiction.

## **8. ENFORCEMENT OF AGREEMENT**

### **8.1 California Law**

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Firm covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

### **8.2 Waiver**

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of a party shall be deemed to waive or render unnecessary such party's consent to or approval of any subsequent act of the other party. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

### **8.3 Rights and Remedies are Cumulative**

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

### **8.4 Legal Action**

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

### **8.5 Termination Prior to Expiration of Term**

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Firm, except that where termination is due to the fault of the Firm and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate.

Upon receipt of the notice of termination, Firm shall immediately cease all Services hereunder except such as may be specifically approved by the Contract Officer. Firm shall be entitled to compensation for all Services rendered prior to receipt of the notice of termination and for any Services authorized by the Contract Officer thereafter.

Firm may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

#### **8.6 Termination for Default of Firm**

If termination is due to the failure of the Firm to fulfill its obligations under this Agreement, OCFA may take over the work and prosecute the same to completion by contract or otherwise, and the Firm shall be liable to the extent that the total cost for completion of the Services required hereunder exceeds the compensation herein stipulated, provided that OCFA shall use reasonable efforts to mitigate damages, and OCFA may withhold any payments to the Firm for the purpose of set-off or partial payment of the amounts owed to OCFA.

#### **8.7 Attorneys' Fees**

If either party commences an action against the other party arising out of or in connection with this Agreement or its subject matter, the prevailing party shall be entitled to recover reasonable attorneys' fees and costs of suit from the losing party.

### **9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION**

#### **9.1 Non-Liability of OCFA Officers and Employees**

No officer or employee of OCFA shall be personally liable to the Firm, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Firm or its successor, or for breach of any obligation of the terms of this Agreement.

#### **9.2 Covenant Against Discrimination**

Firm covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry. Firm shall take affirmative action to insure that applicants and employees are treated without regard to their race, color, creed, religion, sex, marital status, national origin, or ancestry.

## **10. MISCELLANEOUS PROVISIONS**

### **10.1 Confidentiality**

Information obtained by Firm in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Firm for any purpose other than the performance of this Agreement without the written consent of OCFA.

### **10.2 Notice**

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

Orange County Fire Authority  
Attention: Sara Kennedy  
1 Fire Authority Road  
Irvine, CA 92602

**WITH COPY TO:**  
David E. Kendig, General Counsel  
Woodruff, Spradlin & Smart  
555 Anton Blvd. Suite 1200  
Costa Mesa, CA 92626

To Firm:

Nori Yokozuka, General Counsel  
8000 Maryland Ave, Suite 350  
Clayton, MO 63105

### **10.2 Integrated Agreement**

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

### **10.3 Amendment**

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

### **10.4 Severability**

In the event that any one or more of the phrases, sentences, clauses,

paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

#### **10.5 Corporate Authority**

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

**“OCFA”**

**ORANGE COUNTY FIRE AUTHORITY**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Sara Kennedy, CPPB  
Purchasing Manager

**“FIRM”**

**PERIMETER SOLUTIONS LP**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Edward Goldberg  
Chief Executive Officer

Date: \_\_\_\_\_

By: \_\_\_\_\_

**EXHIBIT “A”**  
**Scope of Services to be Provided**

**A.1 CONTRACT PERIOD**

One hundred sixty-five (165) days commencing June 24, 2022.

**A.2 PROJECT DESCRIPTION**

Purpose: To provide applicable equipment, retardant product, and personnel to support daytime and mobile night refilling of fixed-tank helicopters with USFS qualified long-term retardant.

Scope: Orange County Fire Authority (OCFA) has requested Perimeter Solutions to provide applicable equipment and USFS qualified long-term retardant during 2022 to support 2 CH-46 & 1 S-61 aircraft as needed. Perimeter Solutions will provide equipment for mixing and delivery of fire retardant into aircraft between the hours of 8am and 8pm with potential additional hours or extended night operations. Exact response times are based on ordering time, location, and fire congested area logistics.

Items to be provided by Perimeter Solutions based on response time:

- Mobile Retardant Helicopter Base dedicated for MAP (mandatory availability period)
- PHOS-CHEK 259-Fx USFS Qualified Product List (QPL) fixed tank helicopter approved
- Equipment, Freight & Labor (5 personnel) to support up to 90,000 gallons per 12hour operational period.

Operational Requirements Provided by Orange County:

- Must have pre-designated area large enough to allow safe accessibility and operations of heavy equipment. (ex. A Football field).
- Water at a minimum rate of 350+ Gallons per Minute (GPM) to the MRB. This may include providing water from: water tenders, pressurized source or, drafting source.
- The MRB site will be at least 300 feet from any waterway, including seasonal lakes or streams, if water is present
- Any mixed or residual retardant is deemed the property of acting Agency, the Agency will work with Perimeter Solutions for effective use or relocation of mixed product.

### A.3 PRICING

Firm will provide a mobile retardant base in the manner and at the rates as specified in the proposal and detailed in the table below. The daily standby rate includes availability of the Firm from the period of 0800 – 2000 hours. Operations after this period will be subject to overtime rates up to the daily maximum.

Item	Description	Rate
Mobile Retardant Base – Standby	Daily Operating Shift (12-Hr)	\$7,000
Mobile Retardant Base - OT	Hourly (up to a Daily Maximum of \$14,000)	\$2,000
Phos-Chek 259-Fx	Based on the 2022 USFS Price List. Product deemed sold once mixed.	Actual
Transportation for Four Trucks	Estimated \$2,000 one-way per truck	Actual
Additional Options	Description	Rate
Water Tender	Daily Operating Shift (12-Hr)	\$2,000
Fixed Location Dip Tank & Containment Berm – Staffed	Daily Operating Shift (12-Hr)	\$800
Fixed Location Dip Tank & Containment Berm – Unstaffed	Daily Operating Shift (12-Hr)	\$500

## OCFA Sole Source Request Form

*The Purchasing Ordinance of the Orange County Fire Authority requires competitive bids and proposals for service and commodity contracts. **A sole source is defined as a product or service that is available from only one known supplier as a result of unique performance capabilities, manufacturing processes, compatibility requirements or market conditions. The using department requesting a sole source shall provide written clear and convincing evidence to support a sole source determination, meaning that only one source exists to fulfill the requirements. This form is to be submitted with the purchase requisition to Purchasing with any sole source requests.***

### SECTION I - INSTRUCTIONS

1. Written justification on this form will be completed by the requesting department and submitted with the purchase requisition.
2. The request must be approved by the section manager and assistant chief prior to submitting the request to the purchasing manager.
3. All sole source forms must be submitted to the Purchasing Manager for approval. Based on the new ordinance the Fire Chief is not required to approve the sole source form. The sole source request may be submitted to Assistant Chief of Business Services by the Purchasing Manager for concurrence as required.
4. All sole source contracts exceeding \$50,000 annually require Executive Committee approval. In this case, the sole source request form must be submitted to the Executive Committee as an attachment to the staff report.
5. The approved sole source justification form will be included in the contract file.

### SECTION II – REQUEST INFORMATION

<b>Department/Section:</b> Special Operations	<b>Requested By:</b> Tim Perkins	<b>Date:</b> 6/2/22
<b>Recommended Vendor:</b> Perimeter Solutions LP	<b>Vendor Contact:</b> Wes Bolsen	<b>Vendor's E-mail Address:</b> wes.bolsen@perimeter-solutions.com
<b>Vendor Address:</b> 8000 Maryland Ave, Ste. 350, Clavton, MO 63105		<b>Vendor's Telephone #:</b> (650) 387-9962
<b>Type of Contract:</b> <input checked="" type="checkbox"/> One-time <input type="checkbox"/> Multi-Year <input type="checkbox"/> Renewal <input type="checkbox"/> Amendment <input type="checkbox"/> Increase	<b>Contract Term (Dates):</b> June 24, 2022 - December 6, 2022	<b>Contract Amount:</b> \$1,655,000
<b>If the contract type is a Renewal, Amendment or Increase, please provide previous contract information with this request (PO, BO, previous approval date, Chief approval or EC approval, and dollar amount).</b>		<b>Attachments:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### SECTION III – JUSTIFICATION

1. **Provide a detailed description of the product or service requested. Describe what it is. Attach additional sheet if necessary.**

Perimeter Solutions provides long-term fire retardant and a mobile retardant mixing plant that will be available to respond with the Quick Reaction Force (QRF) program. The retardant will be mobilized with the aircraft as requested and will enable the helitanker and very large helitankers to hover-fill retardant for night drops.

2. **Please state why the recommended vendor is the only one capable of providing the required services and/or commodities. Provide a summary of findings (research and analysis) including any supporting documentation which validates your recommendation (e.g., attach a manufacturer's letter verifying patented design and direct sale with no distributors) and demonstrates the sole source nature of this request. Attach additional sheet if necessary.**

Perimeter Solutions is the manufacturer and sole distributor for Phos-Chek 259. This product is the only retardant that is approved by the United States Forest Service to be dropped by fixed-tank aircraft that will be utilized in the QRF program. Cal FIRE also relies on the Federal list for the Federal Environmental Impact Statements and state CEQA environmental approvals for the application of long-

**SECTION III – JUSTIFICATION (continued)**

term retardants. Perimeter Solutions is the only company with the mobile equipment and knowledge required to safely mix the retardant for use on the incident. Cal FIRE and the USFS also utilize these services, realizing a great benefit from having the dip site closer to the incident than the air base is typically situated. See attached sole source letter.



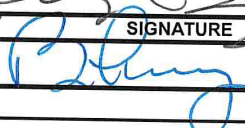
**3. Pricing - What efforts were made to get the best pricing (e.g., did you simply request a quote, negotiate with the vendor, did the vendor provide a discount)? Please provide the quote with your sole source request.**

Pricing for the retardant is based on the USFS contract and is set at a fixed rate per gallon. Reimbursement will be requested from incidents for actual gallons of retardant used. The fixed cost to have the equipment and personnel standing by to respond are included in the funding provided by SCE. Any additional costs will be reimbursed by the incident.

**4. Will this purchase obligate the OCFA to future purchases (maintenance, licensing or continuing needs)?**  
(If yes, please explain how and what the future costs will be.)



The products and services provided by Perimeter Solutions are a part of the QRF program, which is intended to have a duration of 165 days.

**Sole Source Request Submitted by:**

REQUESTORS NAME	SIGNATURE	DATE
Tim Perkins		6.06.22
DIVISION DEPUTY CHIEF/MANAGER NAME	SIGNATURE	DATE
Kenny Dossey		6/5/22
ASSISTANT CHIEF NAME	SIGNATURE	DATE
Brian Fennessy		6/3/22

**Purchasing Manager's Comments:**

Phos-Chek 259 is currently the only retardant permitted to be dropped from the QRF helicopters. In the event future additional funding is provided by SCE, staff will review the market to determine whether additional competition is available or whether the sole source environment is maintained.

PURCHASING MANAGER'S APPROVAL	DATE
	6/8/22
ASSISTANT CHIEF BUSINESS SERVICES CONCURRENCE	DATE
	6/8/22

Executive Committee Approval Required ☒ Yes ☐ No Sole Source over \$50,000

Executive Committee Approved: ☐ Yes ☐ No Date approved \_\_\_\_\_



## Confirmation Letter, Perimeter Solutions as Sole Source seller of PHOS-CHEK 259-Fx for Fixed-Tank Helicopter Application

May 25, 2022

This letter is to confirm that Perimeter Solutions is the sole manufacturer of the PHOS-CHEK 259-Fx product, and it can only be purchased from our company.

In addition, the United States Forest Service has only qualified a single product that can be applied from fixed tank helicopters in the United States on federal lands. This list is known as the Qualified Products List (QPL). "The QPL" is what CAL FIRE also utilizes in their reliance on the Federal EIS and state CEQA environmental approvals for the application of Long-Term Retardants.

The QPL Process is detailed in "[Forest Service Specification FS 5100-304d](#)" and provides the specific requirements for qualifying long-term retardants.

In Figure A below, it shows the continued sole listing of PHOS-CHEK 259-Fx for fixed helicopter application of long-term retardant. The most up to date QPL listing can be found on the United States Forest Service website at:  
[https://www.fs.fed.us/rm/fire/wfcs/documents/2021-1005\\_qpl\\_ret.pdf](https://www.fs.fed.us/rm/fire/wfcs/documents/2021-1005_qpl_ret.pdf)

If you have further questions about this sole-source long-term retardant product for fixed-tank helicopter application, we would be happy to answer them.

Sincerely,

Wes Bolsen  
Director, Wildfire Prevention and Protection  
Perimeter Solutions  
Cell: 650-387-9962  
[Wes.Bolsen@perimeter-solutions.com](mailto:Wes.Bolsen@perimeter-solutions.com)

### Solutions That Save.

#### PERIMETER SOLUTIONS - Fire Safety Group U.S.

10667 Jersey Blvd.  
Rancho Cucamonga, CA 91730  
Tel: +1 909 581 3400

1520 Brookfield Avenue  
Green Bay, WI 54313  
Tel: +1 920 593 9445

[perimeter-solutions.com](http://perimeter-solutions.com)





## Confirmation Letter, Perimeter Solutions as Sole Source seller of PHOS-CHEK 259-Fx for Fixed-Tank Helicopter Application

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Sincerely,

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Director, Wildfire Prevention and Protection  
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Cell: 650-387-9962  
[Wes.Bolsen@perimeter-solutions.com](mailto:Wes.Bolsen@perimeter-solutions.com)

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[perimeter-solutions.com](http://perimeter-solutions.com)



**ORANGE COUNTY FIRE AUTHORITY  
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement") is made and entered into this 23<sup>rd</sup> day of June, 2022 by and between the Orange County Fire Authority, a joint powers agency created pursuant to the California Joint Exercise of Powers Act (Gov't Code §§ 6500 *et seq.*) ("OCFA"), and \_\_\_\_\_, an individual ("Contractor"). OCFA and Contractor are sometimes individually referred to herein as a "Party" and collectively as the "Parties".

**RECITALS**

WHEREAS, OCFA requires the services of a qualified Contractor to provide Air Tactical Group Supervisor services in support of incident goals and objectives, hereinafter referred to as "Project"; and

WHEREAS, Contractor is fully qualified and certified to provide the necessary services for the Project and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Contractor for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby retain Contractor and Contractor agrees to provide professional services as follows:

**AGREEMENT**

**1. PROFESSIONAL SERVICES**

**1.1 Scope of Services**

In compliance with all terms and conditions of this Agreement, Contractor shall provide those services specified in the Scope of Services, attached hereto as Exhibit "A", which includes by reference and by addendum any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto ("Services" or "Work"). Contractor warrants that all Services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the same profession in the State of California. Contractor represents and warrants that he/she possesses a sufficient skill and experience to perform the Services. All Services shall be completed to the reasonable satisfaction of the OCFA. In the event of any inconsistency between the terms contained in the Scope of Services, and/or the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement and then the Scope of Services shall govern, in that order.

## **1.2 Compliance with Law**

All Services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

## **1.3 Licenses and Permits**

Contractor shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the Services required by this Agreement.

## **1.4 Familiarity with Work**

By executing this Agreement, Contractor warrants that he/she (a) has thoroughly investigated and considered the Work to be performed, (b) has carefully considered how the Work should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Agreement.

## **1.5 Care of Work**

Contractor shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the Work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

## **1.6 Additional Services**

Contractor shall perform services in addition to those specified in the Scope of Services when directed to do so in writing by the OCFA Purchasing Manager, provided that Contractor shall not be required to perform any additional services without compensation. Any additional compensation not exceeding fifteen percent (15%) of the agreement amount must be approved in writing by the OCFA Purchasing Manager. Any greater increase must be approved in writing by the Executive Committee of the OCFA Board of Directors.

## **2. TIME FOR COMPLETION**

The time for completion of the Services to be performed by Contractor is an essential condition of this Agreement. Contractor shall prosecute regularly and diligently the Work of this Agreement according to the schedules set forth in the Scope of Services. Contractor shall not be accountable for delays in the progress of its Work caused by any condition beyond its control and without the fault or negligence of Contractor. Delays shall not entitle Contractor to any additional compensation regardless of the party responsible for the delay.

### **3. COMPENSATION OF CONTRACTOR**

#### **3.1 Compensation of Contractor**

For the Services rendered pursuant to this Agreement, Contractor shall be compensated and reimbursed, in accordance with the pricing set forth in the Scope of Services (Exhibit "A") in an amount not to exceed Two Hundred Fifty Thousand Dollars (\$250,000).

#### **3.2 Method of Payment**

The Contractor shall invoice OCFA twice a month, the 1st and 16th, for the previous 15 day period. The Contractor shall submit to OCFA in the form approved by OCFA's Finance Manager, an invoice for Services rendered prior to the date of the invoice. OCFA shall pay Contractor for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within fifteen (15) days of receipt of Contractor's invoice.

#### **3.3 Changes**

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Contractor's profession.

#### **3.4 Appropriations**

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

### **4. PERFORMANCE SCHEDULE**

#### **4.1 Time of Essence**

Time is of the essence in the performance of this Agreement.

#### **4.2 Schedule of Performance**

All Services rendered pursuant to this Agreement shall be performed within the time periods prescribed in the Scope of Services (Exhibit "A"). The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

#### **4.3 Force Majeure**

The time for performance of Services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Contractor shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the Services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

#### **4.4 Term**

This Agreement shall continue in full force and effect during the period from June 24 through December 6, 2022 ("Initial Term"), except as may be extended at the sole discretion of OCFA, and unless earlier terminated in accordance with Sections 8.5 or 8.6 of this Agreement.

### **5. COORDINATION OF WORK**

#### **5.1 [Reserved]**

#### **5.2 Contract Officer**

The Primary Contract Officer shall be Tim Perkins, Division Chief – Special Operations, and the Secondary Contract Officer shall be Brian Fennessy, Fire Chief, unless otherwise designated in writing by OCFA. It shall be the Contractor's responsibility to keep the Contract Officer fully informed of the progress of the performance of the Services and Contractor shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

#### **5.3 Prohibition Against Subcontracting or Assignment**

**5.3.1 No Subcontracting Without Prior Approval.** The experience, knowledge, capability and reputation of the Contractor were a substantial

inducement for OCFA to enter into this Agreement. Therefore, Contractor shall not contract with any other individual or entity to perform in whole or in part the Services required hereunder.

#### **5.4 Independent Contractor**

**5.4.1** The legal relationship between the Parties is that of an independent contractor, and nothing herein shall be deemed to make Contractor, an OCFA employee. During the performance of this Agreement, Contractor shall act in an independent capacity and shall not act as an OCFA officer or employee. Contractor will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. Neither OCFA nor any of its officials, officers, employees, agents or volunteers shall have control over the conduct of Contractor, except as set forth in this Agreement. Contractor, shall not maintain a permanent office or fixed business location at OCFA's offices. OCFA shall not in any way or for any purpose be deemed to be a partner of Contractor in its business or otherwise a joint venturer or a member of any joint enterprise with Contractor.

**5.4.2** Contractor shall not incur or have the power to incur any debt, obligation, or liability against OCFA, or bind OCFA in any manner.

**5.4.3** No OCFA benefits shall be available to Contractor in connection with the performance of any Work or Services under this Agreement. Except for professional fees paid to Contractor as provided for in this Agreement, OCFA shall not pay salaries, wages, or other compensation to Contractor for the performance of any Work or Services under this Agreement. OCFA shall not be liable for compensation or indemnification to Contractor for injury or sickness arising out of performing any Work or Services hereunder.

#### **5.6 Employee Retirement System Eligibility Indemnification**

##### **5.6.1 [Reserved]**

**5.6.2** Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by OCFA, including but not limited to eligibility to enroll in any employee retirement system as an employee of OCFA and entitlement to any contribution to be paid by OCFA for employer contribution and/or employee contributions for employee retirement system benefits.

### **6. INSURANCE AND INDEMNIFICATION**

**6.1 Compliance with Insurance Requirements.** Contractor shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its

sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Contractor shall not commence any Services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Contractor's existing insurance policies do not meet the insurance requirements set forth herein, Contractor agrees to amend, supplement or endorse the policies to meet all requirements herein.

**6.2 Types of Insurance Required.** Without limiting the indemnity provisions set forth in this Agreement, Contractor shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

**6.2.1 Professional Liability/Technology Errors and Omissions Insurance ("PLI").** Contractor shall obtain and maintain PLI insurance applicable to each licensed profession practiced by Contractor. Contractor shall maintain PLI insurance with per-claim and aggregate limits no lower than one million dollars (\$1,000,000.00) each occurrence and two million dollars (\$2,000,000.00) aggregate. Covered professional services shall specifically include all Services to be performed under the Agreement and the policy shall be endorsed to delete any exclusions that may exclude coverage for claims within the minimum PLI Limits for the Services to be performed under this Agreement.

**6.2.1.1** The PLI policy shall be endorsed to delete any Contractual Liability Exclusion. The PLI shall include contractual liability coverage applicable to this Agreement. The policy must "pay on behalf of" the insured, and include a provision establishing the insurer's duty to defend the insured.

**6.2.1.2** If the PLI policy of insurance is written on a "claims-made" basis, the policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of three (3) years from the date of the completion of all Services provided hereunder (the "PLI Coverage Period"). If any PLI policy is replaced, cancelled, non-renewed, discontinued, or otherwise terminated, or if the limits of a PLI policy are reduced or the available coverage depleted below the required minimum coverage amounts for any reason during the PLI Coverage Period, ATGS shall immediately obtain replacement PLI coverage meeting the requirements of this Section 6.2.1. Such replacement coverage shall satisfy all requirements herein, and shall include coverage for the prior acts or omissions of ATGS during the time period during which any Services were performed. The coverage shall be evidenced by either a new policy evidencing no gap in coverage, or by obtaining separate extended "tail" coverage with the present or new carrier or other insurance arrangements providing for complete coverage, either of which shall be subject to the written approval by the OCFA.

**6.2.1.3** If the PLI policy is written on an "occurrence" basis, the policy shall be continued in full force and effect during the term of this Agreement, or until completion of the Services provided for in this Agreement, whichever is later. In the event of termination of the PLI policy during this period, new coverage shall immediately

be obtained, and written evidence of the policy shall be immediately provided to OCFA, to ensure PLI coverage during the entire course of performing the Services.

**6.2.1.4** Contractor shall not perform any Services at any time during which required types or amounts of PLI insurance are not in effect, and OCFA shall have no obligation to pay Contractor for Services performed while required PLI insurance is not in effect.

**6.2.2 Automobile Liability Insurance.** Contractor shall maintain, in full force and effect throughout the term of this Agreement, a policy of personal Automobile liability insurance in compliance with all statutory requirements applicable in the State of California.

**6.3 Acceptability of Insurers.** Each insurance policy required by this section shall be issued by a licensed company authorized to transact business by the Department of Insurance for the State of California with a current rating of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI)), by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the Services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Contractor agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA.

**6.3.1** Contractor shall immediately replace any insurer whose A.M. Best rating drops below the levels specified herein with an insurer that meets the minimum requirements herein.

**6.4 Specific Insurance Provisions and Endorsements.** Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the Contractor to add the following provisions to the insurance policies:

**6.4.1 [Reserved]**

**6.4.2 Notice of Cancellation:** Each policy of any type shall be endorsed to provide that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Contractor's failure to pay the insurance premium, the notice provided by the insurer to OCFA shall be by not less than ten (10) days prior written notice. (A statement that notice will be provided "in accordance with the policy terms" or words to that effect is inadequate to meet the requirements of this Section).

**6.4.2.1 Pre-Payment of Policy Premium.** If for any reason an insurer declines to issue an endorsement certifying that it will notify OCFA in accordance with section 6.4.2, Contractor shall either obtain insurance from another insurer who will provide the required notice endorsement or shall provide evidence satisfactory to OCFA that the entire policy premium for the full term of that policy has been pre-paid such that the risk of non-payment of premiums during the term of the policy has been eliminated.

**6.4.3 ACORD Forms Will Not Be Accepted in Lieu of Endorsements.** By executing this Agreement, Contractor certifies that it has – prior to execution of this Agreement - confirmed that its insurance company will issue each of the endorsements required by this Agreement. Contractor also certifies that it understands that "ACORD" Certificate of Liability Insurance forms will not be accepted in lieu of required endorsements.

**6.5 Deductibles and Self-Insured Retentions.** Any deductible or self-insured retention must be approved in writing by the OCFA in advance. The decision whether to approve or withhold approval of a deductible or self-insured retention shall be made by the OCFA in the OCFA's sole and absolute discretion.

**6.6 [Reserved]**

**6.7 Evidence of Coverage.** Concurrently with the execution of the Agreement, Contractor shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required to be maintained by Contractor by this Section 6. Contractor shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

**6.7.1** Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval.

**6.7.2 Authorized Signatures.** The certificates of insurance and original endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

**6.7.3 Renewal/Replacement Policies.** At least fifteen (15) days prior to the expiration of any policy required by this Agreement, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or has

been provided through another insurance company or companies meeting all requirements of this Agreement.

**6.8 Requirements Not Limiting.** Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Contractor may be held responsible for losses of any type or amount.

**6.9 Enforcement of Agreement (Non-Estoppel).** Contractor acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Contractor of any non-compliance with any of the insurance requirements set forth in this Agreement imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

**6.10 [Reserved]**

**6.11 Other Insurance Requirements.** The following terms and conditions shall apply to the insurance policies required of Contractor pursuant to this Agreement:

**6.11.1** Contractor shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled, suspended, or non-renewed (2) the limits of any of the insurance coverages required herein are reduced; (3) any required insurance coverage is reduced below the required minimum limits through claims or otherwise, or (4) the deductible or self-insured retention is increased.

**6.11.2** All insurance coverage and limits required under this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

**6.11.3** None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

**6.11.4** Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay the Project. It is Contractor's obligation to ensure timely compliance with all insurance submittal requirements as provided herein and Contractor agrees to reimburse

OCFA for any losses resulting from its failure to timely comply with the requirements of this Agreement.

#### **6.11.5 [Reserved]**

**6.11.6** Contractor agrees to provide immediate written notice to OCFA of any claim, demand or loss arising out of the Services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to an amount less than required by this Agreement.

### **7. RECORDS AND REPORTS**

#### **7.1 Reports**

Contractor shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the Services required by this Agreement as the Contract Officer shall require.

#### **7.2 Records**

Contractor shall keep such books and records as shall be necessary to properly perform the Services required by this Agreement and enable the Contract Officer to evaluate the performance of such Services. Except as provided in Section 7.5, the Contract Officer shall have full and free access to such books and records at all reasonable times, including the right to inspect, copy, audit and make records and transcripts from such records.

#### **7.3 Ownership of Documents**

Except as provided in Section 7.5, all drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of this Agreement shall be the property of OCFA and shall be delivered to OCFA upon request of the Contract Officer or upon the termination of this Agreement, and Contractor shall have no claim for further employment or additional compensation as a result of the exercise by OCFA of its full rights or ownership of the documents and materials hereunder. Contractor may retain copies of such documents for its own use. Contractor shall have an unrestricted right to use the concepts embodied therein.

#### **7.4 Release of Documents**

All drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of Services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

## **7.5 Confidential Materials**

Notwithstanding anything to the contrary in this Agreement, the Contractor shall be the sole owner of Contractor's work papers and of any other documents, data or information which are required to be maintained confidential from OCFA by one or more rules of professional conduct governing the Contractor's profession(s) (collectively, the "Confidential Materials"). Neither the OCFA nor the Contract Officer shall have access to the Confidential Materials except as may otherwise be required by order issued by a court of competent jurisdiction.

## **8. ENFORCEMENT OF AGREEMENT**

### **8.1 California Law**

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Contractor covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

### **8.2 Waiver**

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of OCFA shall be deemed to waive or render unnecessary OCFA's consent to or approval of any subsequent act of Contractor. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

### **8.3 Rights and Remedies are Cumulative**

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

### **8.4 Legal Action**

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

## **8.5 Termination Prior to Expiration of Term**

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Contractor, except that where termination is due to the fault of the Contractor and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate. Upon receipt of the notice of termination, Contractor shall immediately cease all Services hereunder except such as may be specifically approved by the Contract Officer. Contractor shall be entitled to compensation for all Services rendered prior to receipt of the notice of termination and for any Services authorized by the Contract Officer thereafter.

Contractor may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

## **8.6 Termination for Default of Contractor**

[Reserved]

## **8.7 Attorneys' Fees**

[Reserved]

# **9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION**

## **9.1 Non-Liability of OCFA Officers and Employees**

No officer or employee of OCFA shall be personally liable to the Contractor, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Contractor or its successor, or for breach of any obligation of the terms of this Agreement.

## **9.2 Covenant Against Discrimination**

Contractor covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry.

## **10. MISCELLANEOUS PROVISIONS**

### **10.1 Confidentiality**

Information obtained by Contractor in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Contractor for any purpose other than the performance of this Agreement without the written consent of OCFA.

### **10.2 Notice**

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

Orange County Fire Authority  
Attention: Sara Kennedy  
1 Fire Authority Road  
Irvine, CA 92602

**WITH COPY TO:**  
David E. Kendig, General Counsel  
Woodruff, Spradlin & Smart  
555 Anton Blvd. Suite 1200  
Costa Mesa, CA 92626

To Contractor:

Name  
Address

### **10.2 Integrated Agreement**

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

### **10.3 Amendment**

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

### **10.4 Severability**

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

**10.5 Corporate Authority**

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

**“OCFA”**

**ORANGE COUNTY FIRE AUTHORITY**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Sara Kennedy, CPPB  
Purchasing Manager

**“CONTRACTOR”**

**CONTRACTOR NAME**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name  
Title

EXHIBIT "A"  
**Scope of Services**

**A1. Air Tactical Group Supervisor (ATGS) Position**

**A1.1 Position Overview**

**A1.1.1** As described in the "Standards for Aerial Supervision", as published by the National Wildfire Coordinating Group, "The ATGS coordinates incident airspace and manages incident air traffic. The ATGS is an airborne firefighter who coordinates, assigns, and evaluates the use of aerial resources in support of incident objectives. The ATGS is the link between ground personnel and incident aircraft. The ATGS must collaborate with ground personnel to develop and implement tactical and logistical missions on an incident. The ATGS must be proactive in communicating current and expected fire and weather conditions. The ATGS must provide candid feedback regarding the effectiveness of aviation operations and overall progress toward meeting incident objectives. The ATGS must also work with dispatch staff to coordinate the ordering, assignment, and release of incident aircraft in accordance with the needs of fire management and incident command personnel.

**A1.1.2** On Initial Attack (IA) incidents (Type 4 and 5), the ATGS will size up, prioritize, and coordinate the response of aerial and ground resources until a qualified Incident Commander (IC) arrives. On complex incidents (Type 1, 2, or 3), the ATGS will coordinate and prioritize the use of aircraft between several divisions or groups while maintaining communications with operations personnel and aircraft bases (fixed- or rotor-wing).

**A1.1.3** In the Incident Command System (ICS), the ATGS works for the IC on initial attack and the Operations Section Chief (OSC), Air Operations Branch Director, or operational designee on extended attack. The ATGS supervises the Leadplane Pilot (LPIL), Aerial Supervision Module (ASM), and the Helicopter Coordinator (HLCO) positions when activated. The ATGS may operate from an airplane or helicopter.

In the event the ATGS is utilized in an Aerial Supervision position subordinate to the ATGS position, HLCO (Helicopter Coordinator) or AITS (ASM Air Tactical Supervisor) the ATGS will perform those job duties as described in the current NWCG "SAS" (National Wildfire Coordinating Group "Standards for Aerial Supervision".

**A1.2 Position Requirements**

At a minimum, ATGS must possess previously held fire chief officer status and possess and maintain wildland Incident Qualifications and Certification System (IQCS) qualifications for the position of Division Supervisor and/or Air Tactical Group Supervisor.

## **A.2 ATGS Responsibilities**

### **A2.1 Incident Response**

**A2.1.1** The ATGS will respond as part of the aircrew with the aircraft to wildland and all-hazards incidents. The ATGS will perform the duties described above and contained within the “Standards for Aerial Supervision”, as published by the National Wildfire Coordinating Group, in coordination with the Primary or Secondary Contract Officer and/or third parties providing air operations services, as directed by OCFA. The ATGS must be available at the site of the aircraft.

**A2.1.2** The ATGS will provide wildland fire subject matter expertise for pre-attack, initial attack, and extended attack functions. Pre-attack services include evaluation of staffing, familiarization with maps, identification of potential cooperators, and other readiness activities.

**A2.1.3** As delegated by OCFA, the ATGS will ensure day to day contract compliance on assigned aircraft and is responsible for communicating any discrepancies or recommendations to the Primary and/or Secondary Contract Officer.

### **A2.2 Communications**

**A2.2.1** As required by OCFA, the ATGS may serve as the primary point-of-contract (POC) with the OCFA Emergency Command Center for daily status and dispatching to initial attack response.

**A2.2.2** The ATGS is responsible for developing and delivering pre and post incident briefings and After Action Reviews (AAR) for the air crews. Pre-incident briefings may include weather updates, incident status, pending orders, and other information as may be necessary to ensure all crew members required to deploy are able to.

**A2.2.3** The ATGS is responsible for inter cockpit Crew Resource Management (CRM) with OCFA and third party provider crews, as applicable, for the purpose of fostering cohesive team function during the execution of incident objectives.

### **A2.3 Deliverables for IAA Aircraft**

The ATSG will assist with the development of Incident Awareness and Assessment (IAA) deliverables for fire incidents. Deliverables may include maps, files for the Geographic Information Systems section, and infrared video, which will be provided to the incident. The ATSG will ensure the deliverables meet the specifications of what is required by the incident.

## **A2.4 Training**

As requested by OCFA, provide informal and formal National Wildfire Coordinating Group (NWCG) wildland fire instruction. Informal training will be delivered during the course of the daily shift. Formal, classroom-style training will be scheduled and delivered outside the standard shift schedule.

## **A2.5 Schedules**

**A2.5.1 Daily Shift.** The daily shift is twelve (12) hours, and will be coordinated through the Primary or Secondary Contract Officer.

**A2.5.2 Aerial Firefighting Programs.** Contractor services will be utilized in various aerial firefighting programs, which may operate from multiple locations including, but not limited to, the Joint Forces Training Base in Los Alamitos, California, and/or other locations throughout California. Program operations may include a requirement for twelve (12) or twenty-four (24) hour availability. Multiple programs may be in place simultaneously. The ATGS must be available on site at the designated base of operations, or other location as directed, for the duration of the daily shift.

**A2.5.3 Staffing Coordination.** The ATGS is responsible for coordinating all contract aircrew availability to ensure staffing is sufficient to meet the respective daily twelve (12) hour or twenty-four (24) hour availability requirements. The ATGS must communicate schedules and proposed changes to schedules to the Primary or Secondary Contract Officer.

## **A3. Compensation**

### **A3.1 Daily Rate**

**A3.1.1 Standard Shift.** The daily rate for the standard twelve (12) hour shift is \$2,000 and includes, but is not limited to, all staffing coordination activities, ATGS duties, informal training provided during the shift, formal training, and full day support for additional services as requested by OCFA. Contractor is responsible for travel to and from the work location, food, and lodging. Hours worked totaling less than the daily rate will be compensated at one twelfth (1/12) the daily rate at one hundred sixty-six dollars (\$166) per hour.

**A3.1.2 Holdover (Extended Staffing).** In the event that holdover beyond the standard shift is required due to incident activity, services provided in excess of twelve (12) hours will be charged at one hundred sixty-six dollars (\$166) per hour.

**ORANGE COUNTY FIRE AUTHORITY  
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement") is made and entered into this 23<sup>rd</sup> of June, 2022 by and between the Orange County Fire Authority, a joint powers agency created pursuant to the California Joint Exercise of Powers Act (Gov't Code §§ 6500 *et seq.*) ("OCFA"), and Scott Jones, an individual ("Contractor"). OCFA and Contractor are sometimes individually referred to herein as a "Party" and collectively as the "Parties".

**RECITALS**

WHEREAS, OCFA requires a qualified Contractor to deliver project management and support services; and

WHEREAS, based on Contractor's qualifications and experience, Contractor is capable of providing the required personnel and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Contractor for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby retain Contractor and Contractor agrees to provide professional services as follows:

**AGREEMENT**

**1. PROFESSIONAL SERVICES**

**1.1 Scope of Services**

In compliance with all terms and conditions of this Agreement, Contractor shall provide those services specified in the Scope of Services, attached hereto as Exhibit "A", which includes by reference and by addendum any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto ("Services" or "Work"). Contractor warrants that all Services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the same profession in the State of California. Contractor represents and warrants that he/she possesses a sufficient skill and experience to perform the Services. All Services shall be completed to the reasonable satisfaction of the OCFA. In the event of any inconsistency between the terms contained in the Scope of Services, and/or the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement and then the Scope of Services shall govern, in that order.

## **1.2 Compliance with Law**

All Services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

## **1.3 Licenses and Permits**

Contractor shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the Services required by this Agreement.

## **1.4 Familiarity with Work**

By executing this Agreement, Contractor warrants that he/she (a) has thoroughly investigated and considered the Work to be performed, (b) has carefully considered how the Work should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Agreement.

## **1.5 Care of Work**

Contractor shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the Work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

## **1.6 Additional Services**

Contractor shall perform services in addition to those specified in the Scope of Services when directed to do so in writing by the OCFA Purchasing Manager, provided that Contractor shall not be required to perform any additional services without compensation. Any additional compensation not exceeding not exceeding fifteen percent (15%) of the agreement amount must be approved in writing by the OCFA Purchasing Manager. Any greater increase must be approved in writing by the Executive Committee of the OCFA Board of Directors.

## **2. TIME FOR COMPLETION**

The time for completion of the Services to be performed by Contractor is an essential condition of this Agreement. Contractor shall prosecute regularly and diligently the Work of this Agreement according to the schedules set forth in the Scope of Services. Contractor shall not be accountable for delays in the progress of its Work caused by any condition beyond its control and without the fault or negligence of Contractor. Delays shall not entitle Contractor to any additional compensation regardless of the party responsible for the delay.

### **3. COMPENSATION OF CONTRACTOR**

#### **3.1 Compensation of Contractor**

For the Services rendered pursuant to this Agreement, Contractor shall be compensated and reimbursed, in accordance with the pricing set forth in the Scope of Services (Exhibit "A") in an amount not to exceed Two Hundred Fifty Thousand Dollars (\$250,000).

#### **3.2 Method of Payment**

In any month in which Contractor wishes to receive payment, he/she shall no later than the first working day of such month, submit to OCFA in the form approved by OCFA's Finance Manager, an invoice for Services rendered prior to the date of the invoice. OCFA shall pay Contractor for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within thirty (30) days of receipt of Contractor's invoice.

#### **3.3 Changes**

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Contractor's profession.

#### **3.4 Appropriations**

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

#### **4. PERFORMANCE SCHEDULE**

##### **4.1 Time of Essence**

Time is of the essence in the performance of this Agreement.

##### **4.2 Schedule of Performance**

All Services rendered pursuant to this Agreement shall be performed within the time periods prescribed in the Scope of Services (Exhibit "A"). The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

##### **4.3 Force Majeure**

The time for performance of Services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Contractor shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the Services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

##### **4.4 Term**

This Agreement shall continue in full force and effect during the period from June 24 through December 6, 2022 ("Initial Term"), except as may be extended at the sole discretion of OCFA, and unless earlier terminated in accordance with Sections 8.5 or 8.6 of this Agreement.

#### **5. COORDINATION OF WORK**

##### **5.1 [Reserved]**

##### **5.2 Contract Officer**

The Primary Contract Officer shall be Tim Perkins, Division Chief – Special Operations, and the Secondary Contract Officer shall be Brian Fennessy, Fire Chief, unless otherwise designated in writing by OCFA. It shall be the Contractor's responsibility to keep the Contract Officer fully informed of the progress of the performance of the Services and Contractor shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

### **5.3 Prohibition Against Subcontracting or Assignment**

**5.3.1 No Subcontracting Without Prior Approval.** The experience, knowledge, capability and reputation of the Contractor were a substantial inducement for OCFA to enter into this Agreement. Therefore, Contractor shall not contract with any other individual or entity to perform in whole or in part the Services required hereunder.

### **5.4 Independent Contractor**

**5.4.1** The legal relationship between the Parties is that of an independent contractor, and nothing herein shall be deemed to make Contractor, an OCFA employee. During the performance of this Agreement, Contractor shall act in an independent capacity and shall not act as an OCFA officer or employee. Contractor will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. Neither OCFA nor any of its officials, officers, employees, agents or volunteers shall have control over the conduct of Contractor, except as set forth in this Agreement. Contractor, shall not maintain a permanent office or fixed business location at OCFA's offices. OCFA shall not in any way or for any purpose be deemed to be a partner of Contractor in its business or otherwise a joint venturer or a member of any joint enterprise with Contractor.

**5.4.2** Contractor shall not incur or have the power to incur any debt, obligation, or liability against OCFA, or bind OCFA in any manner.

**5.4.3** No OCFA benefits shall be available to Contractor in connection with the performance of any Work or Services under this Agreement. Except for professional fees paid to Contractor as provided for in this Agreement, OCFA shall not pay salaries, wages, or other compensation to Contractor for the performance of any Work or Services under this Agreement. OCFA shall not be liable for compensation or indemnification to Contractor for injury or sickness arising out of performing any Work or Services hereunder.

### **5.6 Employee Retirement System Eligibility Indemnification**

#### **5.6.1 [Reserved]**

**5.6.2** Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by OCFA, including but not limited to eligibility to enroll in any employee retirement system as an employee of OCFA and entitlement to any contribution to be paid by OCFA for employer contribution and/or employee contributions for employee retirement system benefits.

## **6. INSURANCE AND INDEMNIFICATION**

**6.1 Compliance with Insurance Requirements.** Contractor shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Contractor shall not commence any Services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Contractor's existing insurance policies do not meet the insurance requirements set forth herein, Contractor agrees to amend, supplement or endorse the policies to meet all requirements herein.

**6.2 Types of Insurance Required.** Without limiting the indemnity provisions set forth in this Agreement, Contractor shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

**6.2.1 Professional Liability/Technology Errors and Omissions Insurance ("PLI").** Contractor shall obtain and maintain PLI insurance applicable to each licensed profession practiced by Contractor. Contractor shall maintain PLI insurance with per-claim and aggregate limits no lower than one million dollars (\$1,000,000.00) each occurrence and two million dollars (\$2,000,000.00) aggregate. Covered professional services shall specifically include all Services to be performed under the Agreement and the policy shall be endorsed to delete any exclusions that may exclude coverage for claims within the minimum PLI Limits for the Services to be performed under this Agreement.

**6.2.1.1** The PLI policy shall be endorsed to delete any Contractual Liability Exclusion. The PLI shall include contractual liability coverage applicable to this Agreement. The policy must "pay on behalf of" the insured, and include a provision establishing the insurer's duty to defend the insured.

**6.2.1.2** If the PLI policy of insurance is written on a "claims-made" basis, the policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of three (3) years from the date of the completion of all Services provided hereunder (the "PLI Coverage Period"). If any PLI policy is replaced, cancelled, non-renewed, discontinued, or otherwise terminated, or if the limits of a PLI policy are reduced or the available coverage depleted below the required minimum coverage amounts for any reason during the PLI Coverage Period, ATGS shall immediately obtain replacement PLI coverage meeting the requirements of this Section 6.2.1. Such replacement coverage shall satisfy all requirements herein, and shall include coverage for the prior acts or omissions of ATGS during the time period during which any Services were performed. The coverage shall be evidenced by either a new policy evidencing no gap in coverage, or by obtaining separate extended "tail" coverage with the present or new carrier or other insurance arrangements providing for complete coverage, either of which shall be subject to the written approval by the OCFA.

**6.2.1.3** If the PLI policy is written on an “occurrence” basis, the policy shall be continued in full force and effect during the term of this Agreement, or until completion of the Services provided for in this Agreement, whichever is later. In the event of termination of the PLI policy during this period, new coverage shall immediately be obtained, and written evidence of the policy shall be immediately provided to OCFA, to ensure PLI coverage during the entire course of performing the Services.

**6.2.1.4** Contractor shall not perform any Services at any time during which required types or amounts of PLI insurance are not in effect, and OCFA shall have no obligation to pay Contractor for Services performed while required PLI insurance is not in effect.

**6.2.2 Automobile Liability Insurance.** Contractor shall maintain, in full force and effect throughout the term of this Agreement, a policy of personal Automobile liability insurance in compliance with all statutory requirements applicable in the State of California.

**6.3 Acceptability of Insurers.** Each insurance policy required by this section shall be issued by a licensed company authorized to transact business by the Department of Insurance for the State of California with a current rating of A-VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI)), by the latest edition of A.M. Best’s Key Rating Guide, except that the OCFA will accept workers’ compensation insurance from the State Compensation Fund. In the event the OCFA determines that the Services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Contractor agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA.

**6.3.1** Contractor shall immediately replace any insurer whose A.M. Best rating drops below the levels specified herein with an insurer that meets the minimum requirements herein.

**6.4 Specific Insurance Provisions and Endorsements.** Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the Contractor to add the following provisions to the insurance policies:

**6.4.1 [Reserved]**

**6.4.2 Notice of Cancellation:** Each policy of any type shall be endorsed to provide that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to

be suspended, voided, or cancelled because of Contractor's failure to pay the insurance premium, the notice provided by the insurer to OCFA shall be by not less than ten (10) days prior written notice. (A statement that notice will be provided "in accordance with the policy terms" or words to that effect is inadequate to meet the requirements of this Section).

**6.4.2.1 Pre-Payment of Policy Premium.** If for any reason an insurer declines to issue an endorsement certifying that it will notify OCFA in accordance with section 6.4.2, Contractor shall either obtain insurance from another insurer who will provide the required notice endorsement or shall provide evidence satisfactory to OCFA that the entire policy premium for the full term of that policy has been pre-paid such that the risk of non-payment of premiums during the term of the policy has been eliminated.

**6.4.3 ACORD Forms Will Not Be Accepted in Lieu of Endorsements.** By executing this Agreement, Contractor certifies that it has – prior to execution of this Agreement - confirmed that its insurance company will issue each of the endorsements required by this Agreement. Contractor also certifies that it understands that "ACORD" Certificate of Liability Insurance forms will not be accepted in lieu of required endorsements.

**6.5 Deductibles and Self-Insured Retentions.** Any deductible or self-insured retention must be approved in writing by the OCFA in advance. The decision whether to approve or withhold approval of a deductible or self-insured retention shall be made by the OCFA in the OCFA's sole and absolute discretion.

**6.6 [Reserved]**

**6.7 Evidence of Coverage.** Concurrently with the execution of the Agreement, Contractor shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required to be maintained by Contractor by this Section 6. Contractor shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

**6.7.1** Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval.

**6.7.2 Authorized Signatures.** The certificates of insurance and original endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

**6.7.3 Renewal/Replacement Policies.** At least fifteen (15) days prior to the expiration of any policy required by this Agreement, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with

the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies meeting all requirements of this Agreement.

**6.8 Requirements Not Limiting.** Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Contractor may be held responsible for losses of any type or amount.

**6.9 Enforcement of Agreement (Non-Estoppel).** Contractor acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Contractor of any non-compliance with any of the insurance requirements set forth in this Agreement imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

**6.10 [Reserved]**

**6.11 Other Insurance Requirements.** The following terms and conditions shall apply to the insurance policies required of Contractor pursuant to this Agreement:

**6.11.1** Contractor shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled, suspended, or non-renewed (2) the limits of any of the insurance coverages required herein are reduced; (3) any required insurance coverage is reduced below the required minimum limits through claims or otherwise, or (4) the deductible or self-insured retention is increased.

**6.11.2** All insurance coverage and limits required under this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

**6.11.3** None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

**6.11.4** Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay the Project. It is Contractor's obligation to ensure timely compliance with all insurance submittal requirements as provided herein and Contractor agrees to reimburse OCFA for any losses resulting from its failure to timely comply with the requirements of this Agreement.

**6.11.5 [Reserved]**

**6.11.6** Contractor agrees to provide immediate written notice to OCFA of any claim, demand or loss arising out of the Services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to an amount less than required by this Agreement.

**7. RECORDS AND REPORTS**

**7.1 Reports**

Contractor shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the Services required by this Agreement as the Contract Officer shall require.

**7.2 Records**

Contractor shall keep such books and records as shall be necessary to properly perform the Services required by this Agreement and enable the Contract Officer to evaluate the performance of such Services. Except as provided in Section 7.5, the Contract Officer shall have full and free access to such books and records at all reasonable times, including the right to inspect, copy, audit and make records and transcripts from such records.

**7.3 Ownership of Documents**

Except as provided in Section 7.5, all drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of this Agreement shall be the property of OCFA and shall be delivered to OCFA upon request of the Contract Officer or upon the termination of this Agreement, and Contractor shall have no claim for further employment or additional compensation as a result of the exercise by OCFA of its full rights or ownership of the documents and materials hereunder. Contractor may retain copies of such documents for its own use. Contractor shall have an unrestricted right to use the concepts embodied therein.

#### **7.4 Release of Documents**

All drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of Services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

#### **7.5 Confidential Materials**

Notwithstanding anything to the contrary in this Agreement, the Contractor shall be the sole owner of Contractor's work papers and of any other documents, data or information which are required to be maintained confidential from OCFA by one or more rules of professional conduct governing the Contractor's profession(s) (collectively, the "Confidential Materials"). Neither the OCFA nor the Contract Officer shall have access to the Confidential Materials except as may otherwise be required by order issued by a court of competent jurisdiction.

### **8. ENFORCEMENT OF AGREEMENT**

#### **8.1 California Law**

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Contractor covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

#### **8.2 Waiver**

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of OCFA shall be deemed to waiver or render unnecessary OCFA's consent to or approval of any subsequent act of Contractor. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

#### **8.3 Rights and Remedies are Cumulative**

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

#### **8.4 Legal Action**

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

#### **8.5 Termination Prior to Expiration of Term**

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Contractor, except that where termination is due to the fault of the Contractor and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate. Upon receipt of the notice of termination, Contractor shall immediately cease all Services hereunder except such as may be specifically approved by the Contract Officer. Contractor shall be entitled to compensation for all Services rendered prior to receipt of the notice of termination and for any Services authorized by the Contract Officer thereafter.

Contractor may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

#### **8.6 Termination for Default of Contractor**

[Reserved]

#### **8.7 Attorneys' Fees**

[Reserved]

### **9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION**

#### **9.1 Non-Liability of OCFA Officers and Employees**

No officer or employee of OCFA shall be personally liable to the Contractor, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Contractor or its successor, or for breach of any obligation of the terms of this Agreement.

#### **9.2 Covenant Against Discrimination**

Contractor covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any

person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry.

## **10. MISCELLANEOUS PROVISIONS**

### **10.1 Confidentiality**

Information obtained by Contractor in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Contractor for any purpose other than the performance of this Agreement without the written consent of OCFA.

### **10.2 Notice**

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

Orange County Fire Authority  
Attention: Sara Kennedy  
1 Fire Authority Road  
Irvine, CA 92602

**WITH COPY TO:**  
David E. Kendig, General Counsel  
Woodruff, Spradlin & Smart  
555 Anton Blvd. Suite 1200  
Costa Mesa, CA 92626

To Contractor:

Scott Jones  
1867 Virazon Drive  
La Habra, CA 90631

### **10.2 Integrated Agreement**

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

### **10.3 Amendment**

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

### **10.4 Severability**

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences,

clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

#### **10.5 Corporate Authority**

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

**“OCFA”**

**ORANGE COUNTY FIRE AUTHORITY**

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Sara Kennedy, CPPB  
Purchasing Manager

**“CONTRACTOR”**

**SCOTT JONES**

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Scott Jones

EXHIBIT "A"  
**Scope of Services**

**A1. Program Manager Position**

**A1.1 Position Overview**

Contractor will be considered a Quick Reaction Force (QRF) Program Manager and provide on-demand 24/7 support. Contractor will serve as the primary point of contact for all movement of QRF aircraft, including initial attack dispatches, pre-positioning and diverts.

**A.2 Services**

**A2.1 Primary Duties**

- a) Coordinate with agencies such as Cal OES, Northern California Geographic Coordination Center (ONCC), and Southern California Geographic Coordination Center (OSCC) to establish and set mission priorities.
- b) Track and maintain status, availability and/or any limitations of personnel and aircraft.
- c) Serve as liaison between OCFA and the many distinct elements involved in the delivery and use of all QRF products.
- d) Coordinate with end users (agencies, departments, and incidents) to ensure their needs are being met.

**A2.1 Additional Services**

As requested by OCFA, Contractor shall make presentations, attend meetings, and provide briefings on program-specific information.

**A2.2 Schedules**

**A2.2.1 Daily Duties.** The daily duties will be coordinated through the Primary or Secondary Contract Officer.

**A2.2.2 QRF Program.** Contractor services will be utilized in the QRF program, which operates primarily from Southern California, but may operate anywhere in within the State of California. The operation will provide twenty-four (24) hour availability. Contractor will primarily provide services from a remote location. The location must provide for connectivity with phone and internet access. Contractor may be required to be available at a work site identified at the request of OCFA.

### **A3. Compensation**

#### **A3.1 Hourly Rate**

**A3.1.1 Standard Duties.** The hourly rate for the standard duties is \$166 and includes, but is not limited to, all staffing coordination activities, Program Manager duties, support services, informal training provided during the shift, formal training, and full day support for additional services as requested by OCFA. Contractor is responsible for travel to and from the work location, food, and lodging.

**A3.1.2 Additional Services.** The rate for additional services including, but not limited to, remote oversight of aviation platforms, and attendance at meetings, presentations, and other similar events will be charged at one hundred sixty-six dollars (\$166) per hour.

**MUTUAL AID AGREEMENT  
BETWEEN  
JOINT FORCES TRAINING BASE (JFTB)  
AND  
ORANGE COUNTY FIRE AUTHORITY (OCFA)  
FOR  
FIRE AND RESCUE MISSION**

**MAA Number:**

**1. BACKGROUND:**

The combined residential population of Los Angeles, Orange, and Ventura Counties exceeds one-third of the entire state of California. Wildland fire spread during extreme fire weather conditions has exceeded all historical models. The need for a more rapid and a significant increase of ground and aerial fire suppression resources is both immediate and imperative. Each of the aforementioned counties have developed their own wildland fire aerial suppression programs around the helicopter platform, with a goal of suppressing 95% of wildland fires to 10 acres or less, still large destructive fires are occurring. When a wildland fire exceeds the suppression capabilities of the initial attack organization, additional aircraft are needed to reinforce the attack. It is here that a rapid response by a Quick Reaction Force or QRF can have a significant impact containing large fire growth.

In accordance with DODI 6055.06, DoD Fire and Emergency Services (F&ES) Program, 3 October 2019, when called on and approved by the appropriate authority, makes DoD F&ES resources available to help civil authorities under Mutual Aid Agreements (MAAs), community partnerships and other written agreements, host-nation support agreements, and Defense Support of Civil Authorities. This mission also enhances DoD mission assurance strategies by protecting the U.S. homeland and critical bases of operation through preventive risk management, education, emergency response, and risk communication.

This Mutual Aid Agreement (MAA) between Joint Forces Training Base (JFTB) and Orange County Fire Authority (OCFA) is to support the mission tasking issued by the California Governor's Office of Emergency Services (Cal OES) to facilitate preparation for anticipated emergency response efforts to protect lives and property during the fire season, beginning 24 June 2022 and concluding on 6 December 2022. The ultimate goal is to get a 5 year Corps of Engineer license to Orange County Fire Authority within 6 months from 6/24/2022 negating the need for an MAA each year.

## Interim Use Agreement Between JFTB and OCFA

JFTB does not need a new Environmental Condition of Property and there are no changes in the condition of the property since the 2017 Joint Forces Training Base Environmental Baseline Survey that identified the property as an ECOP Area Type 1, See attached Exhibits: (Exhibit B, Hazardous Material Survey); (Exhibit C, JFTB Final Environmental Baseline Survey (EBS)); (Exhibit D, Environmental Determination) and (Exhibit E, ARNG Record of Environmental Consideration) for Categorical Exclusion Code, F-1 which grants or acquisitions of leases, licenses, easements, and permits to the JFTB property.

OCFA may utilize the following land space and facilities at JFTB (See Exhibit A): 1st floor only of Building 64 (2,091 SF) and adjacent area (3,700 SF), and airfield tarmac for aircraft parking (.8 acres).

### **1.1. Equipment and Operations:**

1.1.1. OCFA will have a Contractor on site with the following Equipment managed by OCFA: Operating during fire season (24 June – 6 December 2022), 24/7 Operation

1 x CH-47, 3 x personnel vehicles (SUV/Pickup truck), 1 x NASCAR Trailer and 1 x Semi Truck, 1 x Fuel Trailer, 1 x Semi Fueler to haul; 1 x NVG Bus (Operations Center), and 1 x 76 Parts Van.

1.1.2. OCFA will have the following Equipment and Personnel:

1 x Support Vehicle (SUV or Pickup Truck).

1 x OCFA Staff member 24/7

1.2. OCFA anticipates conducting two to four incident flights per week and an additional 2-4 training flights per week. Emergency flights will be mission-dependent during the fire season.

### **2. AUTHORITIES:**

2.1. NGR 5-2, National Guard Support Agreements, 14 October 2010

2.2. AR 405-80, Management of Title and Granting Use of Real Property, 10 October 1997

2.3. DOD FMR 7000.14R Volume 11A, DOD Financial Management Regulation, 1 July 2020

2.4. DODI 4165.70, Real Property Management, 6 April 2013

2.5. DODI 4000.19, Support Agreements, 16 December 2020

2.6. DODI 1000.15, Procedures and Support for Non-Federal Entities Authorized to Operate on DOD Installations, 24 October 2008

2.7. DODD 1000.26E, Support for Non-Federal Entities Authorized to Operate on DOD Installations, 2 February 2007.

2.8. DODI 6055.06, DoD Fire and Emergency Services Program, 3 October 2019

## Interim Use Agreement Between JFTB and OCFA

3. **SCOPE:** This Mutual Aid Agreement, between Joint Forces Training Base (JFTB) and Orange County Fire Authority (OCFA) to respond to support California Governor's request, Fire and Rescue Mission, is intended to facilitate preparation for anticipated emergency response efforts to protect lives and property, during the fire season beginning 6/24/2022 and ending 12/6/2022, in light of extreme weather conditions and wildfires throughout California.

OCFA anticipates 2- 4 incident flights per week, and an additional 2-4 training flights per week, with emergency flights to be mission dependent during fire seasons.

JFTB and OCFA will coordinate a media conference to be held at JFTB, to announce the helitanker use. JFTB grants OCFA use of the listed real property (**See Exhibit A, Facility Map**), subject to the specified limitations, for the purposes herein described.

### **TEMPORARY USE OF PROPERTY - Description of Building/Facility/Area of Use:**

3.1. OCFA may utilize the following land space and facilities at JFTB on a reimbursable basis. Areas of utilization are: the 1st floor only of Building 64 (2,091 SF) and adjacent area (3,700 SF), and airfield tarmac aircraft parking.

3.2. Building 64, is a two story 4,958 gross-square-foot facility (2,479 each floor). It was built in close vicinity to the airfield to provide flight training facilities.

4. **PURPOSE:** To provide access and facility space to support OCFA's contracted helitanker for emergency fire response for wildland fires in Southern California between 24 June, 2022 and until end of mission 6 December, 2022. Any costs associated with this support, will be billed to OCFA for reimbursement (**See Appendix B, Estimated 5 Year Summary Costs Data Sheet**).

### **5. RESPONSIBILITIES:**

#### **5.1. Grantor (JFTB) shall:**

5.1.1. Provide access to Building 64, equal to approximately 2,094 square feet, and a portion of the Central Tarmac at the JFTB Army Airfield, equal to approximately .10 acres during non-fire season, and approximately .70 acres during fire season, for OCFA truck with trailer, employee parking, county vehicle parking and Bldg. 284 with support flight operations to conduct their air missions.

5.1.2. Provide utilities, fire & emergency services, environmental, security services on a reimbursable basis in accordance with the provision of sections 3 and 4 above. The billing cycle will be for the 30 day period.

## Interim Use Agreement Between JFTB and OCFA

5.1.3. Provide installation wide security, emergency and fire response support, as required. Any additional support over and above an emergency response will not be supported by JFTB.

5.1.4. Provide a cost summary worksheet for sustainment of OCFA operations at JFTB to include facility support and all other identifiable and incremental costs (See Appendix B).

5.1.5. Ensure that there is a Federal employee available to open and close the facility for the OCFA for the training activities indicated in the agreement.

5.1.6. Ensure proposed activities will not discredit or bring adverse public attention to the California National Guard.

5.1.7. Brief the Grantee on security issues, off limits areas, installation specific rules and regulations cleaning standards, inventory elements, emergency action measures and emergency points of contact and description of cleaning standards.

5.1.8. Become familiar with and assure compliance with local codes and ordinances relating to public assemblies, occupancy limitations, noise limitations, fire prevention, panic exit precautions, police permits and protection, and other safety measures.

5.1.9. When a loss or damage is discovered, a Serious Incident Report (SIR) will be completed and forwarded through channels with a copy faxed to J9, USPFO, and local law enforcement notified as appropriate. The Grantee shall be contacted and offered the opportunity to correct the problem prior to filing a claim. If the deposit is insufficient, then a claim will be filed against the Grantee's liability insurance policy to satisfy the damages.

5.1.10. Receive a valid Certificate of Liability Insurance of no less than \$5,000,000 (aggregate total) from OCFA (**See Appendix C, Insurance Liability Certification**).

**5.2. Grantee (OCFA), including all officers, employees, agents, contractors, volunteers or any other person performing services on the Grantee's behalf, shall:**

5.2.1. Reimburse JFTB for all identifiable reimbursable costs identified in Enclosure 2, up to the commencement of the pending long-term agreement, whereupon, the terms of that agreement will control. OCFA is not authorized any federal support from the JFTB. Checks will be made to the California Military Department and submitted to the JFTB billing office for payment processing. Mr. Arnold Arenas may be contacted for further questions or details at 562-795-1403 and email [arnold.p.arenas.nfg@mail.mil](mailto:arnold.p.arenas.nfg@mail.mil).

## Interim Use Agreement Between JFTB and OCFA

522. Make no promises, commitments, or obligations of said facilities of any kind to any third party for future use. Not sublet or modify any aspect of the leased space.

523. Permit the Installation Commander and/or any designated representative to inspect the facilities and operations to ensure full compliance with the provisions of this agreement.

524. Notify the JFTB Commander upon Change of Responsible Party for OCFA operations with full name, address and contact information in accordance with paragraph 11 below, to the listed POC.

525. Provide an emergency locator roster of key employees and their telephone numbers to JFTB Department of Public Works (DPW). The roster will identify all personnel and vehicles authorized access to JFTB, including the name, cell phone number of the on-duty, on-site supervisor. This will be provided as soon as is practicable, not later than 15 days after commencement of this agreement.

526. Attend periodic JFTB tenant board meetings. OCFA is welcome to provide presentations at the tenant board meetings with regards to their program.

527. Provide parking for their employees and government vehicles within the granted space.

528. Abide by all rules and regulations and policies that may hereinafter be specified by the Installation Commander, or designated representative, as well as all City and County ordinances, rules and regulations, and all State and Federal laws and regulations, insofar as the same or any of them are applicable; and where permits and/or licenses are required.

529. Ensure OCFA adhere to Federal Aviation Agency (FAA) and United States Army Air Nautical Service Agency (USAANSA) safety of flights, air traffic control procedures<sup>1</sup> and military operations as determined by JFTB and the Government.

52.10. Have a non-exclusive and non-possessory right to enter upon, and use the property to carry out the purpose described above, and in accordance with the terms set forth in this agreement and any further conditions and requirements as JFTB may hereafter prescribe. The California Military Department operates JFTB under license from the Department of the Army. Under this agreement, OCFA right to enter does not constitute a grant of any ownership, leasehold, easement, or other property interest, or estate in the property.

52.11. Ensure that OCFA employees, agents, or any other person performing services on OCFA's behalf who are entering JFTB under this agreement are

## Interim Use Agreement Between JFTB and OCFA

appropriately vetted per applicable federal and departmental regulations, policies, and directives. OCFA must provide JFTB with a list of names of all OCFA employees, agents, or any other person performing services on OCFA's behalf who are entering JFTB under this agreement. This will be provided to the POC listed below as soon as is practicable, not later than 15 days after commencement of this agreement.

52.12. Enter JFTB on an "AS-IS" basis. OCFA understands that JFTB has no obligation for maintenance, repair, improvement, or alteration of the property either before, during, or after the term of this agreement.

52.13. Maintain the property in a sanitary condition satisfactory to JFTB. OCFA will be responsible for maintaining the property in a clean and orderly fashion and will coordinate with DPW to arrange for all excess refuse generated by OCFA above and beyond regular pick-up to be removed from the premises and properly disposed of at OCFA's sole expense.

52.14. Submit written requests for all desired photography and video recording activities to JFTB. All photography and video recording activities are prohibited without the express consent from JFTB Garrison Commander and the California Military Department, Joint Forces Headquarters.

52.15. Not place or construct upon, over, or under the property any permanent installation or structure of any kind or character, except such as are specifically authorized by JFTB. OCFA will remove any OCFA property installed or located on the property promptly upon expiration, termination, or abandonment of this agreement. Any property of OCFA not removed within that time may be removed, stored or disposed of by JFTB at the sole expense of OCFA.

52.16. Assume and discharge any cost, expense or liability in connection with or in any manner incident to the granting, exercise, enjoyment, or relinquishment of this agreement, including but not limited to all attorney fees and costs incurred by the parties in enforcing their rights under this agreement.

### 5.3. Both Parties agree:

53.1. OCFA agrees to comply with all health and environmental conditions, requirements and restrictions, including but not limited to:

53.1.1. OCFA will not engage in any activities that would create friable asbestos and/or expose lead based paint.

53.1.2. OCFA will be responsible for cost covering environmental cleanup and/or soil removal/cleanup of any contaminated soil.

53.1.3. OCFA will create and maintain a Hazardous Materials Business Plan (HMBP) on the California Environmental Reporting System (CERS), in accordance

## Interim Use Agreement Between JFTB and OCFA

with California law; this plan is due before operations and/or submitted to the POC listed below within 15 days of commencement of this agreement. The CERS website portal: <http://cers.calepa.ca.gov/> will provide assistance in creating the plan. In addition, see Exhibit B, Hazardous Material Survey.

5.3.1.4. OCFA will create and maintain a Spill Prevention, Control, and Countermeasures Plan (SPCCP) and a Storm Water Pollution Prevention Plan (SWPPP), consistent with the provisions of the JFTB SPCCP and SWPPP; this plan is due before operations and/or submitted to the POC listed below within 15 days of commencement of this agreement.

5.3.1.5. OCFA must store flammable hazardous material in an approved flammable hazardous storage container locker in accordance with Army and/or JFTB Environmental directives. Immediately report any hazardous spills to the Environmental Office, the Fire Department, and/or the Security Forces.

5.3.1.6. At a minimum, properly label, store, and segregate secondary containment containers. Secondary containment systems shall be used for all stationary fuel sources (e.g., generators, tanks) and other hazardous materials/hazardous waste in accordance with applicable laws and regulations.

5.3.1.7. Supplement the State of California Military Department Environmental Condition of Property investigation upon termination of this agreement.

5.3.1.7.1. OCFA shall prepare or have prepared an Environmental Condition of Property (ECOP) investigation that documents the environmental condition of all properties subject to this agreement.

5.3.1.7.2. The ECOP investigation shall be prepared in accordance with Army National Guard policies and procedures.

5.3.1.7.3. Any contamination identified as a result of the ECOP investigation shall be cleaned up by OCFA in accordance with all applicable laws and regulations."

5.3.1.7.4. OCFA is responsible for any costs, expenses, liabilities, fines, or penalties resulting from discharges, emissions, spills, storage, or disposal arising from OCFA occupancy, use of operations, or any other actions by OCFA giving rise to CMD liability, civil or criminal, or responsibility under Federal, state or local environmental laws or regulations. This provision shall survive the expiration or termination of this AGREEMENT and OCFA obligations hereunder shall apply whenever CMD incurs costs or liabilities for OCFA actions.

5.3.1.8. OCFA shall not install, or maintain, generators without the written consent of the JFTB Commander. Upon consent of the Commander, OCFA is responsible for obtaining and maintaining all required equipment registrations and air

## Interim Use Agreement Between JFTB and OCFA

quality permits from South Coast Air Quality Management District (SCAQMD) and providing copies for review to JFTB.

5.3.1.9. OCFA servants, agents and employees must have a valid driver's license and proof of insurance; or Government-issued identification prior to entering onto JFTB property. All personnel will comply with the speed limits at the JFTB and other security regulations. All persons entering the JFTB shall render proof of identification upon request by security personnel.

5.3.1.10. On request of the Installation Commander and/or his representative, remove from JFTB premises any servant, agent, or employee of OCFA, its subcontractor and/or independent contractor whose conduct is found to be improper.

5.3.1.11. JFTB Fire Department is the First Responder to all accidents and incidents on the JFTB; for all emergencies call 911. Report all accidents/incidents to JFTB Security Forces at 562-795-2100.

5.3.1.12. OCFA understands permission to operate can be denied under the following conditions:

5.3.1.12.1. When the airfield is closed, no flights are permitted.

5.3.1.12.2. When weather conditions do not permit flight operations.

5.3.1.12.3. When other unsafe conditions exist.

### **5.3.2 JFTB, specific to Airfield Operations, agrees:**

5.3.2.1. OCFA anticipates 2-4 incident flights per week, with an additional 2-4 training flights per week, with emergency flights to be mission dependent during fire seasons.

5.3.2.2. All flight operations will comply with the JFTB Regulation 95-1, Airfield Operations.

5.3.2.3. Any bird strikes, or wildlife encounters will be reported to the Los Alamitos Army Airfield (LAAAF) Safety Officer, at 562-795-2007, within 12 hours of occurrence.

5.3.2.4. The OCFA area of operation on the ramp will comply with, AR 95-2, Air Traffic Control, Airfield/Heliport, and Airspace Operations. All start carts, maintenance equipment, and fire extinguishers will be stored 10 feet past the non-movement area of the fire line, near the OCFA facility building 64, when not in use.

5.3.2.5. OCFA personnel will attend the LAAAF Quarterly Operations and Safety Councils, contact LAAAF Safety Officer for the schedule.

## Interim Use Agreement Between JFTB and OCFA

5.3.2.6. During LAAAF non-standard missions: Hero missions, HMX, VIP, and other restrictive missions, OCFA operations may be suspended or altered to accommodate LAAAF operations.

5.3.2.7. Any breach in security or safety protocols, will be reported immediately to Base Operations.

5.3.2.8. All OCFA refueling will be conducted internally, if refueling cannot be done internally, prior arrangements with LAAAF Petroleum, Oil & Lubricants (POL) Services will be made.

5.3.2.9. Access gates near OCFA to the airfield will remain closed at all times. Gate access will be granted to OCFA personnel only, and the gate will be closed after entry. At no time will the gate remain in the open position. If the gate is non-functional, LAAAF Base Operations must be notified.

5.3.2.10. Before each flight, OCFA pilots will check the LAMF Notice to Airmen (NOTAM) for changes in Airfield operations.

5.3.2.11. JFTB agrees to conduct a pre-check joint cleaning inspection (**See Appendix D**) with the OCFA at least one day before permitting occupancy the building. Upon completion of the occupancy, use the pre and post cleaning inspection checklist, and conduct an audit confirming the facility was returned in acceptable condition or identifying deficiencies requiring additional clean up. Cleaning by the occupants must be completed prior to the start of the next scheduled installation use, normal business hours.

5.3.2.12. JFTB and OCFA will coordinate a media conference to be held at JFTB, to announce the helitanker use.

5.3.2.13. Interagency training between JFTB Los Alamitos Fire and/or CAARNG units and Fire Authority units should be scheduled and conducted as schedules permit. Training topics should include aircraft firefighting, hazardous materials incidents, confined space rescues, structural firefighting, and EMS related incidents to include Multiple Casualty Incidents (MCI).

**6. INDEMNITY.** The United States, State of California Military Department, Joint Forces Training Base, and their respective personnel shall not be responsible for damages to property, injuries to persons, or financial representation regardless of the cause that may from and/or be incident to OCFA in the conduct of their activities, or operations. OCFA shall hold harmless the United States, State of California, JFTB, and their respective personnel from any and all claims arising and incident to OCFA that are not due to the direct fault or negligence of the United States, State of California, JFTB, the California National guard and their respective personnel.

## **7. INSURANCE.**

7.1. OCFA covenants at its own expense to maintain and keep in force for the mutual benefit of JFTB and OCFA an insurance policy for claims against bodily injury, death, personal property damage, theft, fire, storm, flood, and damage or destruction through any other force of nature to relieve the JFTB from any liability arising from such theft, loss, damage, or destruction occurring in, on or about the premises and to insure the condition of the real property. The insurance shall afford protection to the limit of not less than \$5,000,000 combined single limit liability coverage.

7.2. OCFA shall furnish JFTB with certification showing such insurance to be in force at all times throughout the term of this agreement. No policy shall be amended or canceled without thirty (30) days prior written notice to JFTB, and each policy shall so be provided. Except for JFTB's agents, employees and/or contractors' actions, inactions, negligence and/or breach of expressed warranties, OCFA shall indemnify, protect, defend and hold harmless the premises, the JFTB, from and against any and all claims, loss of rents and/or damages, costs, liens, judgments, penalties, permits, attorney's and consultant's fees, expenses and/or liabilities arising out of, involving or in dealing with the occupancy of the premises, the conduct of OCFA business, an act, or omission or neglect of OCFA, its agents, contractors, or employees.

7.3. Insured. All OCFA officers, employees, agents, contractors, and volunteers who are on JFTB property in connection to this agreement must be covered by a Certificate of Liability Insurance provided to JFTB as required above.

8. **SEVERABILITY.** Neither party intends to obligate the other party to enter into any agreement or take any action that would constitute a violation of any law, regulation or contract applicable to the other party. If any provision of this agreement is for any reason found to be ineffective, unenforceable or illegal by any court having jurisdiction, that condition shall not affect the validity or enforceability of any of the remaining portions of this agreement; provided, further, that the parties shall negotiate in good faith to replace any ineffective, unenforceable or illegal provisions as soon as is practical. In the event of a conflict between any provisions of this agreement both parties agree to resolve all conflicts at the lowest level possible.

## **9. TERMS AND CONDITIONS.**

9.1. Compliance. Any use made of the property and any construction, maintenance, repair, or other work performed thereon by the Grantee, including the installation and removal of any article or thing, will be accomplished in a manner satisfactory to JFTB and requires prior approval. The Grantee's use of the property will be at all times subject and subordinate to the JFTB's uses and the Grantee will ensure its activities do not interfere with military operations.

9.2. Security. The Grantee will go through any security measures in place upon entry and will be responsible for notifying security of any security issues that come up throughout the relevant period.

## Interim Use Agreement Between JFTB and OCFA

9.3. Structures. The Grantee will not place or construct upon, over, or under the property any permanent installation or structure of any kind or character, except such as are specifically authorized by JFTB. Under no circumstances will the Grantee drive stakes, poles or other devices into the asphalt or concrete paving or floor of the property or alter any existing structures, signs, improvements, or any ingress and egress routes on the property without the express written approval of JFTB.

9.4. Posters and Signs. The Grantee will not affix in any manner any poster, sign, notice or other writing to the walls of the property nor display the same on the property without JFTB's express consent. Posters and signs advocating a political position or expressing political views will not be allowed under any circumstances.

9.5. "AS-IS". The property is granted on an "AS-IS" basis and JFTB has no obligation for maintenance, repair, improvement, or alteration of the property either before or during the term of this agreement.

9.6. Laws and Ordinances. In the exercise of any privilege granted by this agreement, OCFA and its officer, employees, agents, contractors, and volunteers will comply with all applicable federal, state, and local laws, and the rules, orders, regulations and requirements of all applicable governmental entities, departments and bureaus. OCFA and its officers, employees, agents, contractors, and volunteers must comply with all Army and California Military Department rules, policies, and regulations; and all applicable JFTB rules and policies relating to the use of the property, to include environmental requirements.

9.7. Sanitary Conditions and Maintenance. The Grantee will at all times keep the property in a sanitary condition satisfactory to the JFTB. The Grantee will be responsible for maintaining the property in a clean and orderly fashion and will arrange for all refuse generated by the event to be removed from the premises and properly disposed of at the Grantee's sole expense. OCFA will coordinate with the DPW for placement of garbage cans or dumpsters and removal of all waste.

9.8. Damage. No property, real or personal, for which JFTB has responsibility will be destroyed, displaced or damaged by OCFA in the exercise of the privilege granted by this agreement without the prior written consent of the Installation Commander and the express agreement of the Grantee to promptly replace, return, repair, and restore any such property to a condition satisfactory to the JFTB. If any property is damaged as a result of the event or Grantee's use of the property, the Grantee will be solely responsible, at its own expense, for repairing any such damage or replacing such property to the satisfaction of the JFTB. If the property cannot be repaired or replaced to the JFTB's satisfaction, the Grantee will be liable for all damages caused.

9.9. Operation. The Grantee will confine its activities on the property strictly to those necessary for the enjoyment of the privilege hereby granted, and will refrain from marring or impairing the appearance of the property, obstructing access thereto,

## Interim Use Agreement Between JFTB and OCFA

interfering with the military operations, jeopardizing the safety of persons or property, or causing justifiable public criticism.

9.10. **Grantee's Property.** Any property of the Grantee installed or located on the property must be removed promptly upon expiration, termination, or abandonment of this agreement. Any property of the Grantee not removed within that time may be removed, stored or disposed of by JFTB at the sole expense of the Grantee. Grantee agrees to reimburse JFTB for all such costs and expenses. Storage is neither available nor provided prior to or following the event(s).

9.11. **Expense.** Any cost, expense or liability in connection with or in any manner incident to the granting, exercise, enjoyment, or relinquishment of this agreement will be assumed and discharged by the Grantee, including but not limited to all attorney fees and costs incurred by the parties in enforcing their rights under this agreement.

9.12. **Future Requirements.** The Grantee will promptly comply with any further conditions and requirements as JFTB may hereafter prescribe.

9.13. **Attempted Variations.** There will be no variation or departure from the terms of this agreement without the prior written consent of the installation Commander or higher authority by applicable regulation.

9.14. **Revocation.** This agreement will be revocable by JFTB at any time in the event that the Grantee's use of the property is inconsistent with the purpose and objectives of the installation use of a military facility.

9.15. **Surrender.** Upon the expiration or termination of this agreement, the Grantee will surrender the property in the same condition as received (ordinary wear and tear excepted), free from hazards and clear of all debris.

9.16. **Notices and Requests for Approvals or Consent.** Any notices or requests for approvals or consent required or permitted hereunder must be made in writing and may be (a) personally delivered; (b) mailed by depositing such notice in the United States mail, first class postage prepaid; or (c) sent by reputable overnight delivery service; addressed as follows or to such other place as each party hereto may designate by subsequent written notice to the other party.

## **10. RULES OF CONDUCT ON THE PROPERTY.**

10.1. **No Disturbances.** The Grantee, its employees, agents, and invitees will refrain from the following: disorderly conduct; conduct which creates loud or unusual noise; conduct which obstructs the usual use of entrances, foyers, corridors, offices, elevators, stairways, and parking lots; or conduct which tends to impede or disturb JFTB's staff in the performance of their duties.

## Interim Use Agreement Between JFTB and OCFA

10.2. No Gambling. The Grantee, its employees, agents, and invitees will refrain from conducting or participating in games for money or other personal property, the operating of gambling devices, the conduct of a lottery or pool, or the selling or purchasing of lottery tickets at, on or in the property.

10.3. Drug & Alcoholic Beverage-Free Environment. The grantee will not permit any person under the influence of an alcoholic beverage or any drug that has been defined as a "controlled substance" to enter upon the property. The possession, sale, or use of any "controlled substance" or the sale or use of any alcoholic beverage is prohibited.

10.4. Weapons and Explosives. The Grantee, its employees, agents, and invitees, while on the property, will refrain from carrying firearms, other dangerous or deadly weapons, or explosives, either openly or concealed, or storing the same on or within the property without the express consent of the facility.

10.5. Status of Employees. In the performance of the obligations under this agreement, it is mutually understood and agreed that the Grantee is at all times acting and performing independently of the JFTB, the California Military Department, the State of California, and the United States, and that no partnership, joint venture, agency or other similar joint employment relationship of any kind is created by this agreement. Neither the Grantee nor any of its officers, employees, agents, contractors, volunteers or any other person performing services on the Grantee's behalf will have any right or claim against the JFTB, the California Military Department, the State of California, or the United States under this agreement for wages, compensation, social security benefits, workers' compensation benefits, health benefits, vacation pay, sick leave or any other employee benefits of any kind.

## 11. GENERAL PROVISIONS.

11.1. POINTS OF CONTACT: The following points of contact (POC) will be used by the parties to communicate in the implementation of this agreement. Each party may change its point of contact upon reasonable notice to the other party.

### 11.1.2. For JFTB:

11.121. Primary POC: To be determined.

11.122. Billing POC: Mr. Arnold Arenas, Director Resource Management, arnold.p.arenas.nfg@mail.mil or 562-795-1403.

### 11.1.3. For OCFA:

11.131. Primary/Billing POC: Chief Jim Ruane, jimruane@ocfa.org or 714-573-6801.

## Interim Use Agreement Between JFTB and OCFA

11.132 Alternate OCFA POC: Chief Brian Fennessy; 714-559-2700.

11.2. CORRESPONDENCE: All correspondence to be sent and notices to be given pursuant to this agreement will be addressed:

11.2.1. **For JFTB:** Commander, Joint Forces Training Base, 4522 Saratoga Ave., Bldg. 15, Los Alamitos, CA 90720.

11.2.2. **For OCFA:** P.O. Box 57115, Irvine, CA 92602.

### List of Attachments: [In preparation](#)

- 1 – Exhibit A - (Facility Map)
- 2 – Exhibit B - (Hazardous Material Survey)
- 3 – Exhibit C - (JFTB Final Environmental Baseline Survey (EBS))
- 4 – Exhibit D - (Exhibit D, Environmental Determination)
- 5 – Exhibit E - (ARNG Record of Environmental Consideration)
- 6 – Appendix A – (OCFA Reimbursement)
- 7 – Appendix B - (OCFA Liability Insurance Certificate)
- 8 – Appendix C - (Pre and Post Cleaning Inspection Checklist)

12. **AGREED: IN WITNESS WHEREOF**, the parties hereto have caused this MAA to be executed below written.

**GRANTEE (OCFA):**

**GRANTOR (JFTB):**

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BRIAN FENNESSY  
Fire Chief  
Orange County Fire Authority

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MANJU VIG  
LTC, CA ARNG  
Senior Garrison Commander

Approved as to Form:

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CHARMAINE E. BETTY-SINGLETON  
LTC(CA), JA, CA-ARNG  
Attorney Advisor, GS-13 Title 5 Deputy  
General Counsel

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JONATHAN J. CARTWRIGHT, Col, USAF  
USPFO for California

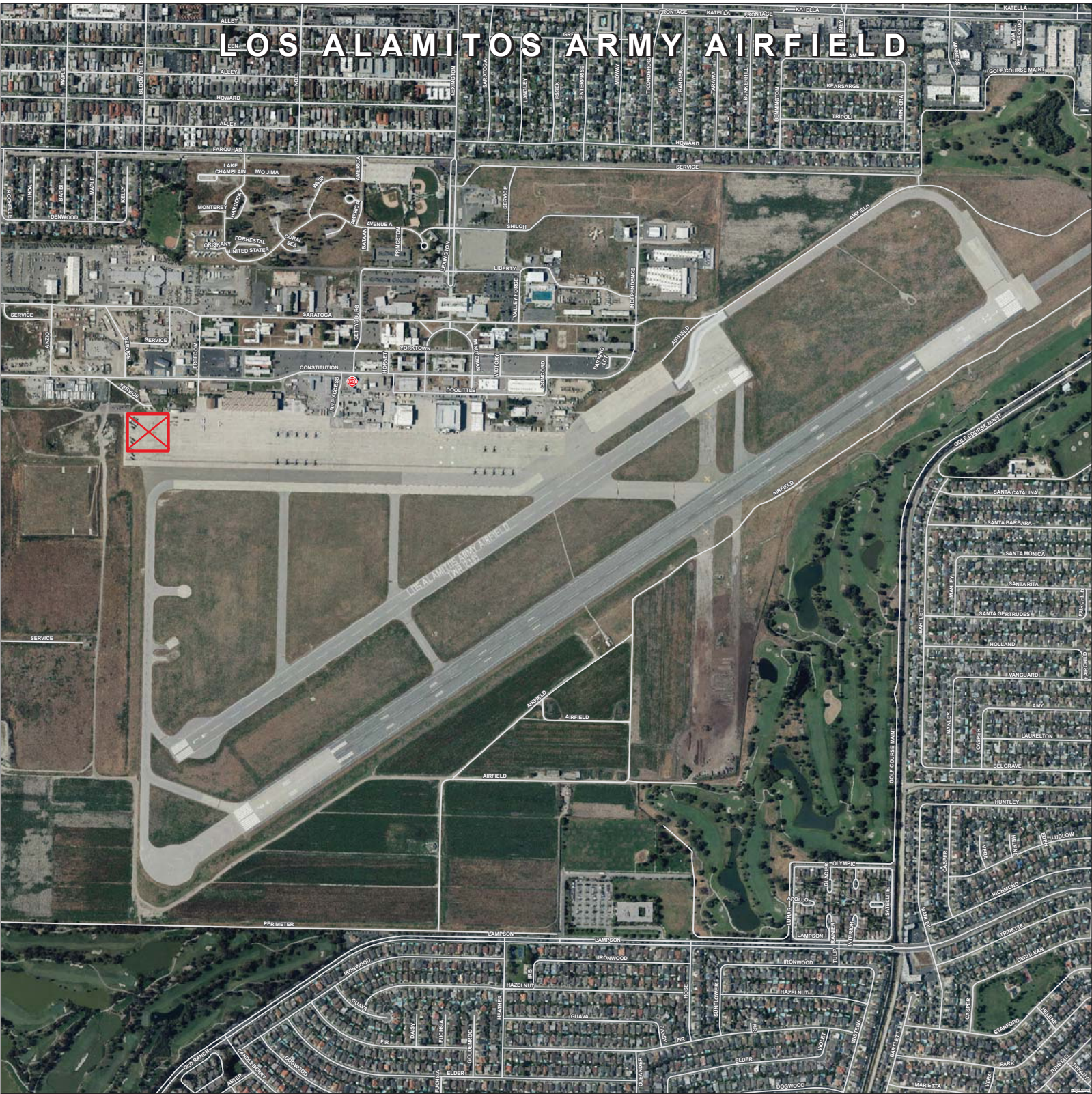


Exhibit A

**OCFA Services Provided - Cost Summary (24 June - 6 December 2022)**

<b>AAF SERVICES WHEN TWR and OPS ARE OPEN/INCIDENTAL USE</b>	<b>FAIR MARKET VALUE (\$)</b>	<b>Monthly Cost</b>	<b>Number of items</b>	<b>Total</b>	<b>WHEN CLOSED (AFTER HOURS)/NON-INCIDENTAL USE</b>	<b>FAIR MARKET VALUE</b>	<b>Monthly Cost</b>	<b>Number of items</b>	<b>Total</b>
ARRF Services (Fire / Crash rescue)	107,000/annual	8,917.00	1	8,917.00	AAF Lighting Service (Fire Dept)	16,500/annual	1375.00	1	1375.00
Organic AAF Fire Extinguishers	est 38/TBD based on type				Heavy Vehicle/Trailer Parking	794/annual	66.00	6	396.00
Fuel Truck Parking	794/annual	66.00	1	66.00	24 hour Security	7,836/annual	653.00	1	653.00
Fuel Truck Secondary Storage	794/annual	66.00	1	66.00	24 hour Fire / Crash Rescue Services	7,836/annual	653.00	1	653.00
Misc. Heavy Vehicle/Trailer Parking	794/annual	66.00	4	264.00	HAZMAT support -Tom Tandoc	538/annual	45.00	1	45.00
SECFOR patrols and services	15,671/annual	1,306.00	1	1,306.00	Pilot Ready room and bathrooms (BASH Office)	962/annual	80.00	1	80.00
ATC Services	1,666/annual	139.00	1	139.00	JFTB Fire Dept flight follow with OCFA Dispatch	794/annual	66.00	1	66.00
Flight Planning Services	666/annual	56.00	1	56.00	Multiple POV and Rental Car Parking spaces	794/annual	66.00	4	364.00
Aviation Weather Services	1,500/annual	125.00	1	125.00	After Hours Noise Complaints (processing / PAO)	170/annual	14.00	1	14.00
JFTB Environmental Spill Protection Services	1340/annual	112.00	1	112.00					
AAF Aircraft Parking	1,203/annual	100.00	1	100.00					
OCFA Maintenance Bus / Semi parking	794/annual	66.00	1	66.00					
JFTB Dyncorp Hangar use (large item maintenance)	1,203/annual	100.00	1	100.00					
AAF Lighting (utilities)	33,000/annual	2,750.00	1	2,750.00					
HAZMAT support -Tom Tandoc	538/annual	45.00	1	45.00					
Pilot Ready room and bathrooms (BASH Office)	962/annual	80.00	1	80.00					
Various JFTB buildings and infrastructure	TBD								
Multiple POV, OCFA, and Rental Car Parking spaces	794/annual	66.00	4	264.00					
JFTB and AAF Public Relations	170/annual	14.00	1	14.00					
JFTB Post Operations	580/annual	48.00	1	48.00					
		Total Monthly		14,518.00			Total Monthly		3646.00
		1/2 Month		7,259.00			1/2 Month		1823.00
		5 1/2 Months		\$79,849.00			5 1/2 Months		\$20,053.00
<b>TOTAL COST SUMMARY</b>	<b>\$99,902.00</b>								

Based on Report to Congress (US DOT and FAA)  
dtd December 2003

Southern California Edison Service Territory Map



**ORANGE COUNTY FIRE AUTHORITY**  
***QRF COST REIMBURSEMENT RATES***  
**EFFECTIVE June 24, 2022**

DESCRIPTION	2022/23 RATE	SOURCE	HOURLY/ DAILY
HELITANKER CH-47 (FLIGHT HOURS)	\$9,007.00	OCFA CONTRACTOR	Hourly
HELITANKER CH-47 (STANDBY)	\$1,400.00	OCFA CONTRACTOR	Hourly
HELICOPTER SIKORSKY S-76 (FLIGHT HOURS)	\$3,841.00	OCFA CONTRACTOR	Hourly
HELICOPTER SIKORSKY S-76 (STANDBY)	\$437.50	OCFA CONTRACTOR	Hourly
HELITANKER S-61 (STANDBY)	\$918.75	OCFA CONTRACTOR	Hourly
HELITANKER S-61 (FLIGHT HOURS)	\$5,420.00	OCFA CONTRACTOR	Hourly
MOBILE RETARDANT PLANT - OT (1)	\$2,000.00	OCFA CONTRACTOR	12-Hour Shift (operational period(s) (0800-2000; 2000-0800)
LARGE VEHICLE MILEAGE (Fuel Truck, Bus, Service Trailer)	\$4.43	OCFA CONTRACTOR	Per Mile
WATER TENDER (Perimeter Solutions) (2)	\$2,000.00	OCFA CONTRACTOR	12-Hour Shift (operational period(s) (0800-2000; 2000-0800)
MOBILE FIRE RETARDANT - PRODUCT (3)	Actual Cost	OCFA CONTRACTOR	Per Mixed Gallon
FREIGHT (Perimeter Solutions) (4)	Actual Cost	OCFA CONTRACTOR	Location and return to point of origin
MOBILE RETARDANT PLANT-OT (STANDBY) (1)	\$583.33	OCFA CONTRACTOR	12-Hour Shift (operational period(s) 0800-2000;2000-0800)
WATER TENDER (Perimeter Solutions - STANDBY) (2)	\$166.67	OCFA CONTRACTOR	12-Hour Shift (operational period(s) 0800-2000;2000-0800)
AIR TACTICAL GROUP SUPERVISORS (ATGS)	\$166.00	OCFA CONTRACTOR	Hourly
PROGRAM MANAGER	\$166.00	OCFA CONTRACTOR	Hourly

## Notes:

- (1) \$2,000 per hour (overtime) after initial 12-hr shift (12-hr daily shift paid by Edison), up to maximum of \$7,000/day if extended or if 24-hr operations in a location begins. Contract cycle of 6/24-12/6/2022 will be charged at the daily operating rate plus overtime or full day rates as utilized.
- (2) Requesting Agency must provide a water tender for Mobile Retardant Plant deployment. Requesting Agency can use an agency water tender or request through vendor.
- (3) Based on 2022 U.S.F.S. FOB Origin Price List of mixed per gallon.
- (4) Based on location, estimated at \$16,000 per incident (\$8,000 per delivery, \$8,000 return of unmixed/unsold product to point of origin).



**Orange County Fire Authority**  
**AGENDA STAFF REPORT**

**Concurrent Joint Special Meetings**  
**June 23, 2022**

**Agenda Item No. 5A**  
**Discussion Calendar**

**Findings Required by AB 361 for the Continued Use of  
Teleconferencing for Meetings**

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**Contact(s) for Further Information**

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**Summary**

In order for the Board of Directors and Committees to continue meeting via teleconference during the pandemic, AB 361 requires the local legislative bodies to make specified findings at least every thirty (30) days.

**Prior Board/Committee Action**

At the October 28, 2021 meeting, the Board of Directors approved the legally required findings and directed staff to schedule concurrent Special Joint Meetings of the Board of Directors, Executive Committee, Budget and Finance Committee, and Human Resources Committee with regular or special meetings of the Board of Directors whenever necessary to address the requirement to make the required findings at least every thirty (30) days, and to minimize the need for separate Board or committee meetings to address this new requirement of the Brown Act.

**RECOMMENDED ACTION(S)**

**Option #1:**

Make the following findings by majority votes of the Board of Directors, Executive Committee, Budget and Finance Committee and Human Resource Committee:

- a. A state of emergency has been proclaimed by California's Governor due to the COVID-19 pandemic and continues in effect; and
- b. The Board of Directors and each Committee has reconsidered the circumstances of the emergency; and
- c. State and local officials continue to recommend measures to promote social distancing to slow the spread of COVID-19.

**Option #2:**

Make the following findings by majority votes of the Board of Directors, Executive Committee, Budget and Finance Committee and Human Resource Committee:

- a. Although a state of emergency has been proclaimed by California's Governor due to the COVID-19 pandemic and continues in effect, the OCFA Board of Directors and each Committee has reconsidered the circumstances of the emergency and no longer finds a need for the legislative body to continue the use of teleconferencing for its meetings.

**Impact to Cities/County**

Not Applicable.

**Fiscal Impact**

Nominal software licensing costs to continue to use Zoom Webinar to stream meetings in a manner that allows online public comments.

## Background

Assembly Bill 361 was signed into law by the Governor on September 16, 2021. A portion of AB 361 enacted amendments to California Government Code section 54953 regarding teleconference meetings.

Those amendments authorize local agencies like the Fire Authority to continue to conduct meetings by teleconference during a Governor-proclaimed state of emergency<sup>1</sup> provided that certain findings are made by the legislative body, and provided that certain procedural requirements are met regarding public access to the meetings.

A new requirement in AB 361 requires particular findings be made by the Board of Directors and each of the OCFA's legislative bodies and requires that the new findings must be reaffirmed at least every thirty (30) days thereafter in order for the legislative body to continue to use teleconferencing.

### **The Required Findings**

The teleconference provisions in AB 361 may only be utilized as long as a Governor-proclaimed state of emergency remains active, and while state or local officials have recommended measures to promote social distancing.

To continue to teleconference using the new provisions of AB 361, each legislative body must make the following findings by majority vote at least every 30 days:

- (A) The legislative body has reconsidered the circumstances of the state of emergency; and
- (B) Either of the following circumstances exist:
  - (i) The state of emergency continues to directly impact the ability of the members to meet safely in person; or
  - (ii) State or local officials continue to impose or recommend measures to promote social distancing.<sup>2</sup>

To comply with that requirement, the recommended action would have the Board of Directors and each Committee find each of the following:

- a. A state of emergency has been proclaimed by California's Governor due to the COVID-19 pandemic and continues in effect; and
- b. The Board of Directors and each Committee has reconsidered the circumstances of the emergency; and
- c. State and local officials continue to recommend measures to promote social distancing to slow the spread of COVID-19.

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<sup>1</sup> For purposes of AB 361 "...state of emergency" means a state of emergency proclaimed pursuant to Section 8625 of the California Emergency Services Act..." Cal. Gov't Code sec. 54953(e)(4). Section 8625 of CESA in turn refers to a state of emergency proclaimed by the Governor.

<sup>2</sup> Cal. Gov't Code sec. 54953(e)(3).

Although there are fewer “social distancing” recommendations in effect today than there have been in the recent past, it remains the case that State and County officials continue to recommend measures to promote social distancing, including but not limited to the following:

- Cal/OSHA Emergency Temporary Standards (ETS) “exclusion rules” currently in effect require, among other things, exclusion from the workplace of employees who had a close contact with an individual with COVID unless the employee is fully vaccinated, does not develop symptoms, wears a face covering, and maintains six feet of distance from others at the workplace for 14 days following the close contact. 8 CCR 3205(c)(9)(B)(1)-(3). See also 8 CCR 3205(c)(10)(D).
- Cal/OSHA ETS also require employers to provide training and instruction that includes “the fact that particles containing the virus can travel more than six feet, especially indoors, so physical distancing, face coverings, increased ventilation indoors, and respiratory protection decrease the spread of COVID-19, but are most effective when used in combination.” 8 CCR 3205(c)(5)(D).
- The County of Orange Health Officer continues to “strongly recommend” that “the older a person is, the more health conditions a person has, and the more severe the conditions, the more important it is to take preventive measures for COVID-19 such as getting vaccinated, including boosters, social distancing and wearing a mask when around people who don’t live in the same household, and practicing hand hygiene.”

#### **Potential Consequence of Not Making the Findings Every 30 Days**

AB 361 does not expressly state what happens if a legislative body fails to make the required findings “every 30 days.” However, it expressly requires the timely reapproval of the findings “in order to continue to teleconference” in the manner that AB 361 authorizes.

As a result, if a legislative body does not adopt the required findings every 30 days, then it may be precluded from continuing to teleconference thereafter, perhaps even if it were later willing to adopt the findings at a later date. For this reason, if the Board of Directors and Committees wish to continue having the option to teleconference, then General Counsel recommends that the Board of Directors and Committees adopt the required findings at this time and at least every 30 days thereafter, as provided with Option #1 under the Recommended Actions. Alternatively, in consultation with Chair Steggell, this agenda staff report offers an Option #2 under the Recommended Actions which includes findings that the Board of Directors and Committees may adopt if they wish to decide as a *permanent* matter that it will no longer permit teleconferencing at all (e.g., regardless of whether the state of emergency worsens).

#### **Attachment(s)**

None.