



ORANGE COUNTY FIRE AUTHORITY

AGENDA

BOARD OF DIRECTORS REGULAR MEETING

Thursday, October 22, 2020

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](#)

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 of Directors 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>



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.

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

During the Statewide COVID-19 Emergency, the public is not permitted to convene in person for this public meeting. However, the public may still view and comment on the meeting as follows:

- To watch the meeting online, please go to website at www.OCFA.org
- To submit an e-comment, please email to PublicComments@ocfa.org.

You may comment on items on the agenda or not on the agenda. Your comments will be forwarded electronically and immediately to the members of the Board. Comments related to a particular agenda item will only be considered prior to the close of public comments on that item.

CALL TO ORDER

INVOCATION by OCFA Chaplain Jim Gwaltney

PLEDGE OF ALLEGIANCE by Director Gamble

ROLL CALL

PUBLIC COMMENTS

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

REPORTS

A. Report from the Budget and Finance Committee Chair

B. Report from the Fire Chief:

- California Fires Update
- Heli-Hydrant
- Public Relations and Communications Activities

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 from the September 24, 2020, Regular Meeting of the Board of Directors

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

Recommended Action:

Approve as submitted.

B. Approval of Annual Statement of Investment Policy, Broker/Dealer List and Investment Authorization

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

Budget and Finance Committee Recommendation: *APPROVE*

Recommended Actions:

1. Review and approve the submitted Investment Policy of the Orange County Fire Authority, to be effective January 1, 2021.
2. Review and approve the Broker/Dealer list for a term of three years through October 31, 2023.

3. Pursuant to Government Code Sections 53601 and 53607, renew delegation of investment authority to the Treasurer for a one-year period, to be effective January 1, 2021.

C Biennial Review and Adoption of Revised Conflict of Interest Code

Submitted by: Robert Cortez, Assistant Chief/Business Services Department and Maria D. Huizar, Clerk of the Authority

Recommended Actions:

1. Adopt the proposed Resolution entitled A RESOLUTION OF THE BOARD OF DIRECTORS OF THE ORANGE COUNTY FIRE AUTHORITY ADOPTING A CONFLICT OF INTEREST CODE WHICH SUPERSEDES ALL PRIOR CONFLICT OF INTEREST CODES, and;
2. Direct the Clerk of the Authority to submit the adopted Resolution to the Orange County Board of Supervisors, as the Code reviewing body, for approval.

D. Award of Public Works Contracts for Regional Fire Operations and Training Center (RFOTC) Training Grounds Improvements

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

Recommended Actions:

Continue consideration of item to the November 19, 2020, Board of Directors meeting.

3. DISCUSSION

No Items.

4. PUBLIC HEARING

No Items.

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 matters will prejudice the position of the authority in existing and/or anticipated litigation:

CS.1. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION -
Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of California
Government Code Section 54956.9. - Number of Cases: Two (2).

CLOSED SESSION REPORT

BOARD MEMBER COMMENTS

ADJOURNMENT – The next regular meeting of the Orange County Fire Authority Board of
Directors is scheduled for Thursday, November 19, 2020, 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 Training and Operations Center, 1 Fire
Authority Road, Irvine, CA, not less than 72 hours prior to the meeting.

Maria D. Huizar, CMC
Clerk of the Authority

UPCOMING MEETINGS:

Budget and Finance Committee Meeting
Human Resources Committee Meeting
Executive Committee Meeting
Board of Directors Meeting

Wednesday, November 4, 2020, 12 noon
Tuesday, November 10, 2020, 12 noon
Thursday, November 19, 2020, 5:30 p.m.
Thursday, November 19, 2020, 6:00 p.m.

MINUTES ORANGE COUNTY FIRE AUTHORITY

**Board of Directors Regular Meeting
Thursday, September 24, 2020
6:00 P.M.**

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

CALL TO ORDER

A regular meeting of the Orange County Fire Authority Board of Directors was called to order on September 24, 2020, at 6:03 p.m. by Chair Hasselbrink.

INVOCATION

Chaplain Robert Benoun offered the invocation.

PLEDGE OF ALLEGIANCE

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

ROLL CALL

Chair, Shelley Hasselbrink, Los Alamitos	Vice Chair, Vince Rossini, Villa Park*
Lisa Bartlett, County of Orange*	Letitia Clark, Tustin*
Sergio Farias, San Juan Capistrano*	Carol Gamble, Rancho Santa Margarita*
Noel Hatch, Laguna Woods*	Gene Hernandez, Yorba Linda*
Robert Johnson, Cypress*	Anthony Kuo, Irvine
Thomas Moore, Seal Beach*	Joseph Muller, Dana Point
John R. O'Neill, Garden Grove*	Sandy Rains, Laguna Niguel*
Dave Shawver, Stanton*	Don Sedgwick, Laguna Hills*
Elizabeth Swift, Buena Park*	Tri Ta, Westminster*
Mark Tettermer, Lake Forest	Juan Villegas, Santa Ana
Donald P. Wagner, County of Orange*	Kathleen Ward, San Clemente*

Absent: Dave Harrington, Aliso Viejo
Michele Steggell, La Palma

Ed Sachs, Mission Viejo

Also present were:

Fire Chief Brian Fennessy	Deputy Chief Pokey Sanchez
Assistant Chief Randy Black	Assistant Chief Robert Cortez
Assistant Chief Kenny Dossey	Assistant Chief Jim Ruane
Assistant Chief Lori Smith	Dir. of Communications Colleen Windsor
General Counsel David Kendig	Assistant Chief Stephanie Holloman
Clerk of the Authority Maria Huizar	

PUBLIC COMMENTS

Chair Hasselbrink opened the Public Comments portion of the meeting. Chair Hasselbrink closed the Public Comments portion of the meeting without any comments from the general public.

REPORTS

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

Budget and Finance Committee Chair Gene Hernandez reported at the September 9, 2020, regular meeting, the Committee voted unanimously to approve and forward the Fourth Quarter Financial Newsletter, Annual Investment Report, and the Monthly Investment Reports to the Executive Committee to receive and file the reports. The Committee also voted unanimously to approve and forward the Carryover of FY 2019/20 Uncompleted Projects, and Organizational Service Level Assessment Results & Approval of Next Phase of Citygate Services to the Board of Directors for approval of the recommended actions.

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

Human Resources Committee Chair Vince Rossini reported at the September 1, 2020, meeting, the Committee received and filed presentation updates on both the Fleet Services and Orange County Fire Authority Management Association (OCFAMA) Classification and Compensation Studies. The Committee also voted to approve and forward the Amended and New Classification Specifications to the Executive Committee for approval.

C. Report from the Fire Chief (FILE 11.14)

Fire Chief Brian Fennessy provided a short video and presented a plaque commemorating OCFA's 25th Anniversary to Chair Hasselbrink. He provided an update to the series of fires throughout California noting OCFA has provided several strike teams to assist, reported on Suicide Prevention and Awareness Safety Stand Down, reminded everyone to be vigilant and focus on COVID Safety Stand Down, and provided an update regarding helicopter maintenance service.

1. PRESENTATIONS

No items.

Director Clark arrived at 6:22 p.m.

2. CONSENT CALENDAR

On motion of Director Johnson and second by Director Hernandez, and following a roll call vote, declared passed 22-0 (Directors Harrington, Sachs, and Steggell absent, Director Muller abstained) 2A-2B. Agenda Item 2D pulled for separate discussion.

A. Minutes from the August 27, 2020, Special Meeting of the Board of Directors (FILE 11.06)

Action: Approve as submitted.

B. Carryover of FY 2019/20 Uncompleted Multi-Year Projects (FILE 15.04)

Action:

1. Approve a budget adjustment in the FY 2020/21 General Fund (121) increasing revenues by \$7,853,974 and expenditures by \$10,468,027.
2. Approve a budget adjustment in the FY 2020/21 General Fund CIP (12110) increasing expenditures by \$4,251,843.
3. Approve a budget adjustment in the FY 2020/21 Fire Stations and Facilities Fund (123) increasing expenditures by \$6,021,771.
4. Approve a budget adjustment in the FY 2020/21 Communications and Information Systems Fund (124) increasing expenditures by \$2,948,389.
5. Approve a budget adjustment in the FY 2020/21 Fire Apparatus Fund (133) increasing expenditures by \$2,409,530.
6. Approve a budget adjustment in the FY 2020/21 Irvine Settlement Agreement Fund (139) increasing expenditures by \$1,500,000.
7. Approve a budget adjustment in the FY 2020/21 Structural Fire Entitlement Fund (171) increasing expenditures by \$1,226,020.

C. Biennial Review and Adoption of Revised Conflict of Interest Code (FILE 20.02A1)

Action: Continue consideration of matter to the October 22, 2020, Regular Board meeting at the request of staff.

D. Organizational Service Level Assessment Results & Approval of Next Phase of Citygate Services (FILE 17.16)

Director Tettemer requested insight to Citygate's initial fire service assessment and future process of their services.

On motion of Director Villegas and second by Director Muller, and following a roll call vote, declared passed 22-0 (Directors Harrington, Sachs, and Steggell absent) to:

1. Receive and file the Citygate Organizational Service Level Assessment (SLA) results presentation and final reports for Field Deployment, Emergency Medical Services, Emergency Command Center, Fleet Services and Executive Leadership.
2. Approve and authorize the Purchasing Manager to issue individual Purchase Orders to Citygate Associates, LLC, under the general terms and conditions of the previously authorized Master Agreement, for each of the following:
 - a. Business Services Department SLA - \$68,356
 - b. Community Risk Reduction Department SLA - \$70,792

3. Direct staff to increase expenditures in the FY 2020/21 General Fund (121) budget by \$139,148 to fund the SLA's outlined above.

3. DISCUSSION

A. Approval of Memorandum of Understanding Orange County Fire Authority Chief Officers Association (FILE 17.04C)

Deputy Chief Zeller presented the Approval of Memorandum of Understanding Orange County Fire Authority Chief Officers Association.

Director Bartlett inquired to the accrual of sick leave and vacation.

On motion of Director Villegas and second by Director Kuo, and following a roll call vote, declared passed 13-8 (Directors Muller, Sedgwick, Tettermer, Moore, Bartlett, Wagner, Rossini, and Hasselbrink dissented; and Directors Harrington, Rains, Sachs, and Steggell absent) to approve the proposed MOU between the Orange County Fire Authority and the Orange County Fire Authority Chief Officers Association for a term of July 1, 2020, to June 30, 2023.

B. Very Large Helitanker (VLHT) Services (FILE 18.09E)

Fire Chief Fennessy presented the Very Large Helitanker (VLHT) Services report with a video presentation.

A brief discussion ensued. Director Muller proposed an amendment to the recommended action that the million dollar savings from the retirement of two helicopters potentially replaced by State funding, would revert back into the General Fund (121).

On motion of Director Villegas and second by Director Muller, and following a roll call vote, declared passed 22-0 (Directors Harrington, Sachs, and Steggell absent) to include Director Muller's proposed amendment and:

1. Approve Funding Agreement with Southern California Edison in a form substantially consistent with the attachment and approved by legal counsel to accept funding in the amount of \$2,158,000 to fund the fixed daily standby lease cost of one CH-47 Helitanker to enhance the effectiveness of aerial responses to wildland fires.
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 and approved by legal counsel utilizing the special procurement provision in the Purchasing Ordinance for the provision of aircraft and other operational related services in an amount not to exceed \$3,283,000.
3. Approve and authorize a FY 2020/21 General Fund (121) budget adjustment to recognize funding from SCE for a revenue increase of \$2,158,000 and to increase appropriations by the same amount.

4. Review the proposed agenda item and approve the updated Cost Reimbursement Rate schedule to include the CH-47 Helitanker hourly flight rate to be effective October 1, 2020.
5. Adopt statutory and categorical exemptions from the California Environmental Quality Act (CEQA) pursuant to: (1) Title 14 of the California Code of Regulations, section 15262 for feasibility and planning studies; and (2) CEQA Guidelines section 15301 for existing facilities.

4. PUBLIC HEARING

No Items.

CLOSED SESSION

No items.

BOARD MEMBER COMMENTS (FILE 11.13)

Director Kuo noted an upcoming Virtual Wildfire Town Hall meeting hosted by the City of Irvine, Tuesday, September 29, 2020.

Director O'Neill thanked all firefighters and their families who are serving us throughout the State of California, noted the helitankers are needed to save lives, and his appreciation of Division Chief Ron Roberts and the firefighters serving the City of Garden Grove.

Director Swift reported on a small fire along the railroad tracks in Fullerton, just north of Buena Park, stating Fullerton Fire requested help by the OCFA helicopters, which aided in extinguishing the fire.

Director Wagner thanked the Authority and Chief Fennessy for the somber and dignified remembrance of September 11. He also thanked Division Chief Baryic Hunter for his reporting and updates he provides regarding OCFA. He also inquired about the process used to inform the board about personnel matters that may involve exposure to liability for the agency.

ADJOURNMENT – Chair Hasselbrink adjourned the meeting at 7:32 p.m. in memory of Charles Morton, Squad Boss for the Big Bear Interagency Hotshots, who passed Thursday, September 17, 2020, while battling the El Dorado Fire, in San Bernardino National Forest. The next regular meeting of the Orange County Fire Authority Board of Directors is scheduled for Thursday, October 22, 2020, at 6:00 p.m.

Maria D. Huizar, CMC
Clerk of the Authority



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
October 22, 2020

Agenda Item No. 2B
Consent Calendar

**Approval of Annual Statement of Investment Policy, Broker/Dealer List and
Investment Authorization**

Contact(s) for Further Information

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Treasury & Financial Planning

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Summary

This annual agenda item is submitted to the Committee in compliance with the Orange County Fire Authority's (OCFA's) Investment Policy that requires the Annual Statement of Investment Policy be reviewed and approved by the Budget and Finance Committee and the Board of Directors. The Broker Dealer List that the Treasurer uses for competitive bidding of investment purchases is updated every three years and is also included for approval.

This item is also being submitted in compliance with Government Code provisions which require the Board of Directors to review and renew the annual delegation of investment authority to the Treasurer for a one-year period.

Prior Board/Committee Action

Budget and Finance Committee at their October 14, 2020 regular meeting reviewed the proposed agenda item and directed staff to place on the agenda for the Board of Directors meeting for approval by a vote of 8-0 (Farias absent).

RECOMMENDED ACTION(S)

1. Review and approve the submitted Investment Policy of the Orange County Fire Authority, to be effective January 1, 2021.
2. Review and approve the Broker/Dealer list for a term of three years through October 31, 2023.
3. Pursuant to Government Code Sections 53601 and 53607, renew delegation of investment authority to the Treasurer for a one-year period, to be effective January 1, 2021.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

The Statement of Investment Policy is reviewed annually and revised by the Treasurer, if needed. The proposed Policy is then submitted to the Budget and Finance Committee and Board of Directors for approval to become effective on January 1 for the calendar year. During the past

year, there were no significant legislative amendments to the California Government Code regarding investments. Therefore, staff recommends that the investment policy remain unchanged. The Proposed Investment Policy is attached for review and approval, to be effective January 1, 2021. (Attachment 1).

The Investment Policy encourages competitive bidding on investment transactions from an approved list of broker/dealers. The list is reviewed every three years by the Treasurer and revised, if needed. The proposed List is also submitted for approval. The OCFA's policy for selection and use of broker/dealers follows the best practices issued by the Government Finance Officers' Association and is prescribed by policy in the OCFA's Annual Investment Policy (Attachment 1).

To qualify, broker/dealers must meet the following *minimum* requirements:

- Agree to comply with the investment policies of the Authority
- Be a primary or regional dealer that qualifies under the Securities and Exchange Commission Rule 15C3-1 (Uniform Net Capital Rule)
- Have a branch office in California
- Be experienced in institutional trading practices and familiar with the California Government Code as related to investments for local governmental agencies
- Have been in business for at least three years
- Provide current audited financial statements
- Provide proof of Financial Industry Regulatory Authority (FINRA) certification

Staff also reviewed the FINRA reports that provide additional information on any disclosure events where the firm was named as a respondent. FINRA oversees virtually all U.S. stockbrokers and brokerage firms. It writes and enforces the rules based on Federal securities law and is overseen by the Securities and Exchange Commission. The financial industry is heavily regulated and litigated as reflected in the number of disclosure events reported by FINRA.

In reviewing the FINRA reports, staff considered the following in assessing the disclosure events, as well as those areas summarized in Attachment 2:

- Did any events occur in the government sector also known as the municipal market?
- Are the brokers assigned to OCFA's account involved in any events ?

If answers to above are "yes"

- Did the firm take action against the employees involved?
- Did the firm take steps to put controls in place to prevent the event from reoccurring?

The following firms are currently on OCFA's list of approved broker/dealers and recommended for renewal: FHN Financial Securities Corp., Raymond James Financial Services Inc., RBC Capital Markets, LLC, Stifel, Nicolaus & Company, Inc., and Wedbush Securities Inc. Their FINRA reports are updates since their last review in 2017. **The Lead Broker from each recommended firm has no disclosure events in FINRA.**

This list shall remain in effect for three years until October 31, 2023 as required by OCFA's Investment Policy. Staff has the ability to discontinue use of the approved brokers at any time, and prior to the conclusion of the three-year period.

Attachment(s)

1. Proposed Investment Policy (to be effective January 1, 2021)
2. FINRA Summary Review Areas of Focus



ORANGE COUNTY FIRE AUTHORITY

INVESTMENT POLICY

Calendar Year 2021



INVESTMENT POLICY

History of OCFA's Investment Policy & Cash Management Program

Following the formation of the Orange County Fire Authority (the Authority) in March 1995, OCFA funds were initially invested in the Orange County Investment Pool (OCIP) and the Local Agency Investment Fund (LAIF). At that time, investment options were limited since the Authority was using County services for treasury, banking, and accounting systems pending implementation of its own systems. During this transitional stage, OCFA staff worked to establish independent banking, custodian, and broker/dealer agreements, installed a portfolio management system, and implemented the Banner Financial System. Staff also researched and drafted a comprehensive Investment Policy. On January 1, 1997, the OCFA Board of Directors adopted the Investment Policy and appointed a Treasurer. Immediately thereafter, OCFA assumed in-house responsibility for Treasury services and implemented its own Cash Management & Investment Services Program.

As the Cash Management program evolved, all remaining funds in the OCIP were gradually withdrawn. The Treasurer invested these funds in individual securities and scheduled maturities to correspond with cash flow needs. Investments included Treasury and Federal Agency securities, prime quality commercial paper, money market mutual funds (U.S. Treasury Obligations), and LAIF.

Since inception in 1997, the Treasurer has continued to refine the Investment Policy on an annual basis to meet the changing needs of the Authority. The Policy has also been formally recognized by the Association of Public Treasurer's of the United States and Canada (APTA US&C). Certification is awarded when an investment policy meets the professional standards set forth by MTA US&C. Agencies may submit for re-certification after significant changes are made to the Policy.

During the past year, there were no significant legislative amendments to the California Government Code regarding investments.



INVESTMENT POLICY

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INVESTMENT POLICY

ORANGE COUNTY FIRE AUTHORITY

1. **Policy:** The Orange County Fire Authority shall invest public funds in such a manner as to comply with state and local laws; ensure prudent money management; provide for daily cash flow requirements; and meet the objectives, in priority order, of safety, liquidity, and return on investment.
2. **Scope:** This Investment Policy applies to all financial assets of the Orange County Fire Authority which are available for investment by the Authority's Treasurer; except that funds in the Authority's deferred compensation plan, defined contribution plan, and security deposits held in escrow in lieu of retention are excluded from this investment policy. The funds governed by this policy may be referred to herein as the OCFA portfolio.
 - 2.1. The Authority's funds are accounted for in the Comprehensive Annual Financial Report (CAFR) and include the funds listed below and any new fund created by the Board of Directors unless specifically exempted.
 - Fund 121 General Fund
 - Fund 122 Facilities Maintenance and Improvements
 - Fund 123 Capital Projects
 - Fund 124 Communications and Information Systems Replacement
 - Fund 133 Vehicle Replacement
 - Fund 171 Structural Fire Fund Entitlement
 - Fund 190 Self-Insurance Fund
 - Fund 422 Extra-Help Retirement Trust
 - 2.2. Bond fund investments will be held separately and made in accordance with the bond debenture requirements.
 - 2.3. Retiree Medical Trust Funds may be held separately from the OCFA portfolio and invested in accordance with California Government Code Section 53620 to 53622 and/or Section 31694.3.
 - 2.4. Additional trust funds may be set up to help reduce OCFA's unfunded pension

liability. These funds may be held separately from the OCFA portfolio and invested according to guidelines provided by OCFA.

3. **Prudence:** The standard of prudence to be used shall be the “prudent investor” standard (in Probate Code Sections 16040-16042 and 16045-16054 cited as Uniform Prudent Investor Act) and shall be applied in the context of managing the overall portfolio, not to a single item within a diversified portfolio. Investments shall be made with judgment and care (under circumstances then prevailing) which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.
4. **Objectives:** The primary objectives of investment activities, in order of priority, shall be:
 - 4.1. *Safety:* Safety of principal is the prime objective of the investment program. The investment program shall be designed and implemented to ensure preservation of capital in the overall portfolio. Invested funds shall be **diversified** to minimize the risk of loss resulting from over concentration of assets in a specific maturity, specific issuer, or specific class of securities.
 - 4.2. *Liquidity:* The investment portfolio shall be structured in a manner which strives to time the maturity of securities with cash requirements. Additionally, since not all possible cash demands can be anticipated, the portfolio should consist of securities with an active secondary or resale market.
 - 4.3. *Return on investment:* The Authority shall attempt to obtain a reasonable return provided that the requirements of safety and liquidity are first met.
5. **Authorization and Delegation of Authority:** Under California Government Code Section 53601, the legislative body of a local agency (i.e., the Authority’s Board of Directors) is authorized to invest surplus moneys as specified in that code section. In accordance with California Government Code Section 53607, this authority is delegated to the Treasurer of the Authority for a one-year period. Subject to review, the Board of Directors may renew the delegation of authority under this code section each year. The Treasurer will be responsible for all investment transactions and shall establish a system of controls to regulate the activities of officials involved in any aspect of the investment program.
 - 5.1. *Investment Procedures:* The Treasurer shall establish written procedures for the operation of the investment program consistent with this Investment Policy. The procedures should include reference to: safekeeping, repurchase agreements, wire transfer agreements, banking service contracts and collateral/depository agreements. The procedures shall include explicit delegation of authority to persons responsible for investment transactions. No person may engage in an investment transaction, except as provided under the terms of this policy and the procedures established by the Treasurer.
 - 5.2. *Delegation in Treasurer’s Absence:* In the Treasurer’s absence, the Treasurer delegates investment authority in the following order to (1) the Assistant Chief, Business

Services and (2) the Deputy Chief, Administration and Support Bureau or Fire Chief's designee.

6. **Duties and Responsibilities:**

- 6.1. *Treasurer:* Charged with responsibility for all public funds and securities belonging to or under the control of the Authority, and for the deposit and investment of those funds in accordance with the principles of sound treasury management and in accordance with the applicable laws, ordinances and policies adopted by the Authority.
- 6.2. *Auditor:* Charged with recording investment activity in the accounting records and with verifying the Treasurer's records with broker confirmations, bank statements and safekeeping records.
- 6.3. *Assistant Chief, Business Services:* Charged with responsibility (in the absence of the Treasurer) for all public funds and securities belonging to or under the control of the Authority and for their deposit. Duties related to investment activities shall be performed by staff other than those responsible for the accounting of those investments.
- 6.4. *Deputy Chief or Fire Chief's designee:* Charged with responsibility (in the absence of the Treasurer and Assistant Chief, Business Services) for all public funds and securities belonging to or under the control of the Authority and for their deposit. Duties related to investment activities shall be performed by staff other than those responsible for the accounting of those investments.
- 6.5. *Fire Chief:* Charged with responsibility for implementation of and conformance to the policies and procedures approved by the Board of Directors for the investment of the Authority's funds.
- 6.6. *Budget and Finance Committee:* Charged with responsibility for investment oversight. The Committee shall review the monthly investment reports and significant investment activity being undertaken. The Committee's recommendations shall be reported in a monthly investment report to the Executive Committee.
- 6.7. *Executive Committee:* Charged with responsibility to receive, review and approve the monthly investment report, following review by the Budget and Finance Committee.
- 6.8. *Board of Directors:* May delegate to the Treasurer for a one-year period the authority to invest the Fire Authority's funds. Subject to review, the Board may renew the delegation of this authority each year. The Board shall also annually consider and approve a written Statement of Investment Policy at a public meeting. Any change to the Investment Policy at any time shall also be considered by the Board at a public meeting.

7. **Ethics and Conflicts of Interest:** All officers, employees, and participants in the Authority's investment process shall:
- 7.1. Act responsibly as custodians of the public trust.
 - 7.2. Avoid any transaction that might impair the public confidence in the Authority's ability to serve the citizens of our area of responsibility.
 - 7.3. Refrain from personal business activities that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment decisions.
 - 7.4. Abide by the Authority's adopted Conflict of Interest Code, which by reference is incorporated into this Investment Policy.
 - 7.5. The Treasurer, the Assistant Chief, Business Services, the Deputy Fire Chief or Fire Chief's designee and the Fire Chief shall be prohibited from doing personal investment transactions with any broker or securities dealer with whom OCFA does business, with the exception of the OCFA's primary bank for banking services. Employees shall subordinate their personal investment transactions to those of OCFA, particularly with regard to the time of purchases and sales.
8. **Authorized Financial Dealers and Institutions:** To promote the optimum yield on the investment of Authority funds, investment procedures shall be designed to encourage competitive bidding on transactions from approved financial institutions or broker/dealers.
- 8.1. On a triennial basis, the Treasurer shall recommend a list of at least three financial institutions and broker/dealers who are authorized to provide investment services. The list shall be approved by the Budget and Finance Committee and the Executive Committee. All financial institutions and broker/dealers who wish to be considered for the list must meet the following minimum requirements:
 - 8.1.1 Must certify that they have read and agree to comply with the investment policies of the Authority.
 - 8.1.2 Must be a primary or regional dealer that qualifies under the Securities and Exchange Commission Rule 15C3-1 (Uniform Net Capital Rule).
 - 8.1.3 Must have a branch office in California.
 - 8.1.4 Must be experienced in institutional trading practices and familiar with the California Government Code as related to investments for local governmental agencies.
 - 8.1.5 Must have been in business for at least three years.

- 8.1.6 Must provide current audited financial statements.
- 8.1.7 Must provide proof of Financial Industry Regulatory Authority (FINRA) certification.
- 8.1.8 Other criteria as may be established in the *Investment Procedures Manual* of the Authority.
- 8.2. All financial institutions in which the Authority's public funds are deposited will supply the Treasurer with the following:
 - 8.2.1 Current audited financial statements.
 - 8.2.2 Depository contracts.
 - 8.2.3 A copy of the latest FDIC call report.
 - 8.2.4 Proof that the institution is state or federally chartered.

9. **Authorized Investment Advisors and Investment Managers:**

Authorized Investment Advisors

Although the Authority does not currently use an investment advisor, these policies and procedures shall be applicable if an investment advisor is utilized in the future to provide advice and guidance for the investment of OCFA portfolio funds. Under Government Code, the Authority is authorized to engage specially trained and experienced firms for economic advice and services. The Board of Directors must approve, in advance, all contracts with an investment advisor, after review by the Authority's Counsel. The investment advisor may only provide advice and may not effectuate trades; he/she may not make investment decisions. The Treasurer shall provide the investment manager with a copy of the Authority's Investment Policy.

Authorized Investment Managers

The provisions above for authorized investment advisors also apply to authorized investment managers. In addition, an investment manager may effectuate trades upon specific authorization for each transaction; however, he/she may not make investment decisions. All investment decisions must be made and approved by the Treasurer in advance, before the investment manager is authorized to execute a transaction. The Treasurer shall provide the investment manager with a copy of the Authority's Investment Policy. Upon execution of any trade, the Authority must receive confirmation directly from the broker/dealer and the custodian, not from the investment manager. Investments recommended by the investment manager should be safe kept by the Authority's regular custodian, and not with the investment manager.

10. **Authorized and Suitable Investments:** The Authority is empowered by statute (California

Government Code Section 53600 et seq., 53620 et seq., and Section 5922[d]) to invest in the following types of securities (see Section 15 of this Policy for maximum percentage limits imposed under Authority Policy):

- 10.1. U.S Treasury or Federal Agency securities.
- 10.2. Collateralized or insured passbook savings accounts and demand deposits.
- 10.3. Collateralized or insured certificates of deposit (or time deposits) placed with commercial banks (maximum term five years).
- 10.4. Bankers acceptances (issued by one of the 10 largest domestic banks or 20 largest international banks based on assets) with maturities not to exceed 180 days. State statute restricts bankers' acceptances to no more than 40% of the agency's surplus funds and no more than 30% in any one commercial bank. Authority policy is more restrictive, with a maximum 25% limit (see Section 15.1.4). Bankers' acceptances are to be purchased only from institutions that are well capitalized as the term is defined in the glossary.
- 10.5. Money market mutual funds whose portfolio consists solely of short-term treasury securities (i.e., one year or less remaining until maturity, at purchase). Mutual funds must be AAA rated by at least 2 of the 3 largest rating agencies.
- 10.6. Repurchase agreements whose underlying collateral consists of U.S. Treasury obligations or U.S. government agency obligations and the collateralization level must be in accordance with Government Code section 53601(i)(2), effective January 1, 1996 (maximum maturity of 14 days). A Public Securities Association (PSA) Master Repurchase Agreement is required between the Authority and the bank or broker/dealer for all repurchase agreements transacted. Direct investment in reverse repurchase agreements is prohibited.
- 10.7. Local Agency Investment Fund (State of California Pool).
- 10.8. Commercial paper in compliance with the following requirements:
 - 10.8.1 Must be rated highest-quality by at least two of the following three nationally recognized rating agencies. Highest-quality ratings are defined as (1) Moody's Investor Services rating of P1; (2) Standard & Poor's rating of A1/A1+; (3) Fitch rating of F1/F1+.
 - 10.8.2 Investments will not be made with commercial paper issuers placed on negative credit watch by any one of the above rating agencies.
 - 10.8.3 Commercial paper issuers must be domestic corporations having assets in excess of \$500,000,000 and having an AA or better rating on its long term debentures as provided by Moody's, Standard & Poor's, or Fitch.

- 10.8.4 Purchases of eligible commercial paper may not: (a) exceed 270 days to maturity; or (b) exceed 15% of the cost value of the portfolio. Although Government Code allows a maximum investment in commercial paper of 25%, Authority Policy maintains a 15% maximum, which is more restrictive.
- 10.8.5 The Treasurer shall conduct research on commercial paper issuers prior to investing OCFA funds with those issuers. The Treasurer will avoid investing in issuers with current events that involve negative financial implications that could lead to a downgrade to their credit rating. Sources of research will include, at a minimum, WSJ.com, Bloomberg.com, Marketwatch.com, and CNNMoney.com.
- 10.9. Negotiable certificates of deposit, issued by national or state-chartered banks or state or federal savings institutions, commercial bank, savings bank (savings and loan association), or credit union that uses a private sector entity that assists in the placement of certificates of deposit under specified conditions. Government Code limits negotiable certificates of deposit to 30% of the portfolio. Authority Policy, which is more restrictive, limits investment in these securities to 25% (see Section 15.1.5).
- 10.10. Proceeds of bonds or other indebtedness and any moneys set aside and pledged to secure payment of the bonds may be invested in accordance with the resolution, indenture, or other statutory provisions governing the issuance of those bonds or indebtedness.
- 10.11. Retiree Medical Funds may be held in a separate trust fund and invested as permitted under California Government Code Section 53620 to 53622 and/or Section 31694.3 for the purpose of paying health insurance benefits to retirees.
- 10.12. Additional trust funds may be set up to help reduce OCFA's unfunded pension liability. These funds may be held separately from the OCFA portfolio and invested according to guidelines provided by OCFA.
11. **Unallowable Investments / Restrictions:** The Authority shall **not** invest OCFA portfolio funds in the following instruments:
- 11.1. Derivatives, except for indirect investment through the State's Local Agency Fund.
- 11.2. Reverse repurchase agreements, although indirect investment through a pool is allowable up to a maximum of ten percent (10%) of the pool's portfolio.
- 11.3. Financial futures or financial options.

- 11.4. Common stocks or corporate bonds.
- 12. **Investment Pools:** Governmental sponsored pools and/or mutual funds should be carefully reviewed prior to investing and should be monitored on an ongoing basis. Requisite information on the pool includes the following:
 - 12.1. A statement of investment policy and objectives.
 - 12.2. A list of allowable investments.
 - 12.3. Disclosure regarding settlement and safeguarding of investments.
 - 12.4. Description of securities pricing (fair value) and whether GASB 31 compliant.
 - 12.5. An explanation of interest calculations and distributions, plus fee disclosures.
 - 12.6. Deposit and withdrawal restrictions.
 - 12.7. Disclosure of audit findings and reports.
- 13. **Collateralization:** Collateral must always be held by an independent third party with whom the Authority has a current custodial agreement.
 - 13.1. State law regarding collateralization of deposits of public funds requires that securities be held by an agent (i.e., a trust company) of the bank, which may include the bank's trust department only if acceptable to both the bank and the Treasurer, pursuant to California Government Code Sections 53656 and 53658. Under the provisions of California Government Code Section 53652, banks are required to secure the deposits of public funds, including certificates of deposits, by: a) pledging government securities with a value of 110% of the principal and accrued interest; b) pledging first trust deed mortgage notes having a value of 150% of the total agency deposit; or c) a letter of credit drawn on the Federal Home Loan Bank at 105% of the total agency deposit. Deposits must be secured at all times with eligible securities pursuant to Section 53651. A copy of the Call Report of Local Agency's Deposits and Securities must be supplied to the Authority and retained to document compliance with the collateral requirements.
 - 13.2. Collateralization of repurchase agreements must be at least 102% of the market value of principal and accrued interest. Collateral must consist of U.S. Treasury obligations or U.S. Agency obligations. Other specific requirements on repurchase agreements must be addressed in a master repurchase agreement between the Authority and the bank or broker/dealer.
 - 13.3. The Treasurer, at his/her discretion, may waive the collateral requirements for deposits up to \$250,000 which are fully insured by the Federal Deposit Insurance Corporation. The right of collateral substitution is granted.

14. **Safekeeping and Custody:** All security transactions shall be conducted on a delivery-versus-payment (DVP) basis. Securities will be held by a third party qualified custodian and evidenced by safekeeping receipts. The trust department of the Authority's bank may act as third party custodian, provided that the custodian agreement is separate and apart from the banking agreement.
15. **Diversification:** The Authority shall maintain a diversified portfolio to minimize the risk of loss resulting from over concentration of assets in a specific maturity, issuer, or security type.
- 15.1. *Restrictions on Securities:* At no time shall the Authority's portfolio be invested in a single security type or in a single financial institution or pool in excess of 15% of the total investment portfolio, with the following exceptions:
- 15.1.1 Treasury securities 100%
- 15.1.2 Local Agency Investment Fund 75% (*Excludes moneys deposited in LAIF bond funds.*)
- 15.1.3 Federal Agency securities 75%
- 15.1.4 Bankers' Acceptances 25%
- 15.1.5 Negotiable CD's 25%
- 15.2. *Exception for Automatic Overnight Sweep:* There shall be no restriction on the amount that is automatically swept from the Authority's bank into the Highmark Money Market Mutual Fund of U.S. Treasury Obligations *on an overnight basis*, in order to accommodate immediate investment of large inflows of property taxes or other receipts, pending diversified investment into other securities by the Treasurer.
- 15.3. *Maturity Diversification:* Every effort will be made to match investment maturities to cash flow needs. Matching maturities with cash flow dates will reduce the need to sell securities prior to maturity, thus reducing the market risk. Maximum maturities shall be as follows:
- 15.3.1 At least 50% of the portfolio is limited to a period of one year or less.
- 15.3.2 Unless matched to a specific requirement and approved by the Executive Committee and the Board of Directors, no portion of the portfolio may exceed five years.
16. **Internal Control:**
- 16.1. Internal policies and procedures shall be developed to assure that appropriate controls are in place to document and confirm all transactions. A separate *Investment Procedures Manual* shall be established to assist Treasury staff with daily operations and shall be reviewed at least annually by the Treasurer.

- 16.2. An independent analysis by an external auditor shall be conducted annually to review internal control, account activity and compliance with policies and procedures.
- 16.3. To provide further protection of the Authority funds, written instructions require the Authority's bank to obtain verification of all wire transfers from two of the three following officers:
 - 16.3.1 Treasurer.
 - 16.3.2 Assistant Chief, Business Services.
 - 16.3.3 Deputy Fire Chief, or Fire Chief's designee.
- 17. **Performance Standards:** The investment portfolio shall be designed with the objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with investment risk constraints and cash flow needs.
 - 17.1. *Investment Strategy:* The Authority's basic investment strategy is to buy and hold investments until maturity. However, the Treasurer may sell a security due to adverse changes in credit or market risk or due to unexpected cash flow needs.
 - 17.2. *Market Yield (Benchmark):* The basis used by the Treasurer to determine whether market yields are being achieved shall be the rates of return from the following combination of indices: Local Agency Investment Fund (LAIF) and 3-month, 6-month and 1-year Treasury Bills (constant maturity).
 - 17.3. *Review:* The investment policy shall be reviewed at least annually by the Budget and Finance Committee and approved by the Board of Directors to ensure its consistency with the overall objectives of safety (including diversification), liquidity and return, as well as its relevance to current law and financial/economics trends. The Authority's philosophy prohibits speculation (i.e., purchasing securities with the intent to profit from anticipated changes in future market conditions). Leveraging or borrowing money for the purpose of investing is specifically prohibited.
- 18. **Reporting:**
 - 18.1. *Monthly Reports:* In compliance with Government Code Sections 53607 and 53646, the Treasurer shall file a monthly investment report with the Clerk of the Board, who will submit copies to the Board of Directors, the Executive Committee, the Budget and Finance Committee, the Fire Chief, the Deputy Chief, Administration and Support Bureau, the Assistant Chief, Business Services, the Auditor, and the Authority's outside auditor (as required). The investment report will be agendaized for the monthly meetings of the Budget and Finance Committee and the Executive Committee, and any Board member may request inclusion of the report on the Board's agenda at any time. This report shall certify that the Treasurer has complied with the Authority's

Investment Procedures Manual and will include an *Executive Summary*, which provides a condensed summary of the most important information in the report, plus a detailed report covering the following elements:

- 18.1.1 Type of investments and percent that each type represents in the portfolio.
 - 18.1.2 Issuer.
 - 18.1.3 Purchase date.
 - 18.1.4 Date of maturity.
 - 18.1.5 Amount of deposit.
 - 18.1.6 Face value of the securities.
 - 18.1.7 Current market value of securities.
 - 18.1.8 Portfolio yield and comparison to benchmark.
 - 18.1.9 Interest earnings.
 - 18.1.10 Percentage of portfolio maturing within one year, 1-3 years, 3-5 years and over 5 years.
 - 18.1.11 Statement relating the report to the Investment Policy.
 - 18.1.12 Statement on availability of funds to meet its obligations for the next 30 days and the next 6 months.
 - 18.1.13 Description of funds, investments, or programs managed by contracted parties.
 - 18.1.14 Statement of compliance of the portfolio with the investment policy or manner in which the portfolio is out of compliance.
 - 18.1.15 GASB 31 effects on financial statements.
 - 18.1.16 Comments on the fixed income markets and economic conditions.
 - 18.1.17 Potential changes in future portfolio structure (if any), including risk factors.
 - 18.1.18 Any other information required by the Board.
- 18.2. *Annual Reports:* The Treasurer shall submit an annual report to the Budget and Finance Committee and the Executive Committee, following the close of the fiscal

year which shall certify that the Treasurer has complied with the Authority's investment procedures and detail the following:

- 18.2.1 Analysis of the composition of the investment fund.
- 18.2.2 Discussion of investment risk in the portfolio.
- 18.2.3 GASB 31 impacts.
- 18.2.4 A review of trends regarding the size of the investment fund.
- 18.2.5 Portfolio performance and comparison to benchmark.
- 18.2.6 Investment income.
- 18.2.7 A statement of anticipated investment fund activity in the next fiscal year.

18.3 **Investment Policy Adoption:** The Treasurer shall annually render to the Fire Chief, the Budget and Finance Committee, and the Board of Directors a Statement of Investment Policy.

Glossary

Active Deposits. Funds which are immediately required for disbursement.

Active investment management. An investment strategy that involves the active trading of securities in an attempt to earn above-average returns on a portfolio. Active investment management requires frequent monitoring of financial markets.

Agency. A debt security issued by a federal or federally sponsored agency. Federal agencies are backed by the full faith and credit of the U.S. Government. Federally sponsored agencies (FSAs) are backed by each particular agency with a market perception that there is an implicit government guarantee. An example of federal agency is the Government National Mortgage Association (GNMA). An example of an FSA is the Federal National Mortgage Association (FNMA).

Arbitrage. Generally, transactions by which securities are bought and sold in different markets at the same time for the sake of the profit arising from a difference in prices in the two markets.

Bankers' Acceptances (BA's). Time drafts or bills of exchange that are accepted payment by banks engaged in the financing of international trade. BA's finance the importation, exportation, shipment or storage of foreign and domestic goods. BA's are usually backed by documentation such as invoices, bills of lading, or warehouse receipts. Upon acceptance by a bank, a BA becomes an irrevocable and unconditional obligation of the accepting bank, while it is also an obligation of the drawer as well as any endorser thereof.

Basis point. By common agreement, .01% of yield on a fixed income security (1/100 of 1%).

Bond Equivalent Yield (BEY). An annual yield, expressed as a percentage, describing the return provided to bond holders. A bond equivalent yield is double the simple interest, semiannual yield. Since Treasury and agency notes and bonds pay interest semiannually, the bond equivalent yield is a way to compare yields from discount securities, such as Treasury bills and bankers' acceptances with yields available from coupon securities. From that usage, this yield measure is also known as the coupon yield equivalent. For securities that pay daily, monthly or quarterly interest, the bond equivalent yield understates the benefits obtained from the compounding of those investments.

Book-entry clearance. A system for the transfer of ownership of securities through entries on the records of a centralized agency. The centralized agency holds securities on behalf of their owners; when the securities are sold, ownership is transferred by bookkeeping entry from the seller to the purchaser. In the case of U.S government securities, securities certificates are not issued, and ownership of the securities is evidenced in computer records maintained by the Federal Reserve System. For other types of securities, book entry clearance is made available through linked or interfaced systems maintained by four securities depositories, which hold securities and act on behalf of their participants.

Book-entry security. A security which is not available to purchasers in physical form. Such a security may be held either as a computer entry on the records of a central holder (as is the case with U.S. certain government securities) or in the form of a single, global certificate.

Book value. The value at which a security is carried on the inventory lists or other financial records of an investor. This value may be the original cost of acquisition of the security, or original cost adjusted by the amortization of a premium or accretion of a discount. The book value may differ significantly from the security's current value in the market.

Broker. A broker brings buyers and sellers together for a commission paid by the initiator of the transaction or by both sides; he does not position or take ownership of the security.

Certificate of Deposit (CD). A deposit of funds, in a bank or savings and loan association, for a specified term that earns interest at a specified rate or rate formula.

Collateralization. Process by which a borrower pledges securities, property or other deposits for the purpose of securing the repayment of a loan and/or security.

Commercial Paper. Unsecured short-term promissory notes issued by corporations, with maturities ranging from 2 to 270 days. May be sold on a discount basis or may bear interest. Firms with lower ratings or without well known names usually back their commercial paper with guarantees or bank letters of credit.

Coupon rate. Interest rate, expressed as a percentage of par or face value, that issuer promises to pay over lifetime of debt security.

Credit Risk. The risk to an investor that an issuer will default in the payment of interest and/or principal on a security.

Current Yield (Current Return). A measure of the simple interest annual yield for interest-bearing investments with maturities of one year or more. To calculate the current yield, the annual coupon interest income is divided by the amount paid to acquire the investment. It is important to note that the current yield is only accurate for investments purchased at par. The current yield calculation includes just one income cash flow - the annual interest income. It ignores the profit or loss resulting from discounts and premiums.

Custody. The service of an organization, usually a financial institution, of holding (and reporting) a customer's securities for safekeeping. The financial institution is known as the **custodian**.

Dealer. An individual or firm who, as a matter of regular business, purchases or sells securities for his account and risk.

Delivery versus payment (DVP). A settlement procedure where payment for a securities purchase is made simultaneously with the transfer of the purchased securities. The same procedure applies for a securities sale; the securities are transferred as payment is made.

Derivative instrument. A security that derives its value from an underlying asset, group of assets, reference rate, or an index value. Some derivative instruments can be highly volatile and result in a loss of principal in changing interest rate environments.

Discount. The amount by which a bond sells under its par (face) value.

Discount securities. Securities that do not pay periodic interest. Investors earn the difference between the discount issue price and the full face value paid at maturity. Treasury bills, bankers' acceptances and most commercial paper are issued at a discount.

Diversification. Dividing investment funds among a variety of securities, offering independent returns, to reduce risk inherent in particular securities.

Effective Annual Yield. A seldom used expression to refer to the yield on an investment expressed on a compound interest basis.

Fed Wire. Computerized network linking the Fed with its district banks, member banks, and primary dealers in government securities.

Federal Agency Securities. A variety of securities issued by several Federally sponsored agencies. Some are issued on a discount basis and some are issued with coupons. Several have the full faith and credit guarantee of the U.S. government, although others do not.

Federal Deposit Insurance Corporation (FDIC). A federal agency that insures bank deposits, currently up to \$250,000 per deposit.

Federal funds (Fed Funds). Funds placed in Federal Reserve banks by depository institutions in excess of current reserve requirements. These depository institutions may lend fed funds to each other overnight or on a longer basis. They may also transfer funds among each other on a same-day basis through the Federal Reserve banking system. Fed funds are considered to be immediately available funds.

Fed Funds Rate - Interest rate charged by one institution lending federal funds to another.

Floater. A floating rate security with an interest rate that resets at specified intervals according to an underlying index, such as LIBOR (the London Interbank Offered Rate), and is based on a predetermined formula. The value of a floater will fluctuate as interest rates change and therefore can be very volatile.

Inactive deposits. Funds not immediately needed for disbursement.

Interest rate risk. The risk associated with declines or rises in interest rates which cause an investment in a fixed-income security to increase or decrease in value.

Inverse floater. A security that reacts inversely to the direction of interest rates. These securities can be very volatile and can lose value in a rising interest-rate environment.

Leverage. An attempt to increase the rate of return on an investment by buying securities on margin or using borrowed funds for investment purposes. This practice can be risky if interest rates rise or if investment yields are lower than expected.

Liquidity. The quality of an asset that permits it to be converted quickly into cash without a significant loss of value.

Local Agency Investment Fund (LAIF). A special fund in the State Treasury which local agencies may use to deposit funds for investment and for reinvestment. There is no minimum investment period and the minimum transaction is \$5,000, in multiples of \$1,000 above that, with a maximum of \$75 million for any agency (*excluding bond funds, which have no maximum*). It offers high liquidity because deposits can be converted to cash in 24 hours and no interest is lost. All interest is distributed to those agencies participating on a proportionate share determined by the amounts deposited and the length of time they are deposited. Interest is paid quarterly via a check, warrant, or direct deposit to the agency's State Pooled Fund account. The State keeps an amount for reasonable costs of making the investments, not to exceed 1/4 of a percent of the earnings.

Marketability. The measure of ease with which a security can be sold in the secondary market.

Mark-to-Market. The practice of valuing a security of portfolio according to its market value, rather than its cost or book value.

Market Rate of Return. The average yield of the 3-month U.S. Treasury Bill or other index that closely matches the average maturity of the portfolio.

Market Value. The price at which the security is trading and could presumably be purchased or sold.

Maturity Date. The specified day on which the issuer of a debt security is obligated to repay the principal amount, or face value of, a security.

Money Market Mutual Fund. Mutual funds that invest solely in money market instruments (short-term debt instruments, such as Treasury bills, commercial paper, bankers' acceptances, repos and federal funds).

Mutual Fund. An investment company that pools money and can invest in a variety of securities, including fixed-income securities and money market instruments. Mutual funds are regulated by the Investment Company Act of 1940 and must abide by the following Securities and Exchange Commission (SEC) disclosure guidelines.

Negotiable. Salable.

Par. Face value or principal value of a bond, typically \$1,000 per bond.

Passive investment management. An investment strategy where securities are bought with the

intention of holding them to maturity or investments in benchmark products designed to yield a market rate of return.

Principal. The face amount or par value of a debt instrument.

Primary Dealer. A small group of large banks and brokers that have pledged to make a market for any Treasury securities at any time. They are required to report their inventory positions and volume of activities to the Federal Reserve. Because of this, they are given the right to deal directly with the Federal Reserve in their daily operations.

Prudent Investor Standard. A standard of conduct where a person acts with care, skill, prudence, and diligence when investing, reinvesting, purchasing, acquiring, exchanging, selling and managing funds. The test of whether the standard is being met is if a prudent person acting in a similar situation would engage in similar conduct to ensure that investments safeguard principal and maintain liquidity.

Rate of return. The amount of income received from an investment, expressed as a percentage. A *market rate of return* is the yield that an investor can expect to receive in the current interest-rate environment utilizing a buy-and-hold to maturity investment strategy.

Public Securities Association. The bond market trade association, which publishes a Master Repurchase Agreement that is widely accepted as the industry standard.

Rating. Judgment of creditworthiness of an issuer made by an accepted rating service.

Repurchase Agreement (Repo). A form of secured, short-term borrowing in which a security is sold with a simultaneous agreement to buy it back from the purchaser at a future date. A *master repurchase agreement* is a written contract governing all future transactions between the parties and seeks to establish each party's rights in the transaction.

Reverse Repurchase Agreement. A form of secured, short-term investment in which a security is purchased with a simultaneous agreement to sell it back to the seller at a future date.

Safekeeping. A procedure where securities are held by a third party acting as custodian for a fee.

Secondary Market. Markets for the purchase and sale of any previously issued financial instrument. The first sale of a financial instrument by the original issuer is said to be done a primary market. All subsequent trades are said to be secondary market.

Securities Investors Protection Corporation (SIPC). A private corporation providing insurance to brokerage firms to cover customer accounts up to \$500,000 in securities which includes a \$250,000 for cash.

Swap. The trading of one asset, or cash flows, for another. Sometimes used in active portfolio management to increase investment returns by "swapping" one type of security for another. Also used to manage risk; for example, swapping fixed interest rate payments for floating rate payments.

Total return. Interest income paid on the invested principal, plus interest income earned from the successive reinvestment of that interest income, plus projected capital gains (or minus losses) on the investment. Differs from yield to maturity because (1) it can include gains or losses from sales prior to maturity, and (2) it permits the assumption of a reinvestment rate different from the yield earned on the underlying principal.

Treasury Bills. Short-term U.S. government non-interest bearing debt securities with maturities of no longer than one year. The yields on these bills are monitored closely in the money markets for signs of interest rate trends.

Treasury Notes. Intermediate U.S. government debt securities with maturities of one to 10 years.

Treasury Bonds. Long-term U.S. government debt securities with maturities of ten years or longer.

Uniform Net Capital Rule. Securities and Exchange Commission 15C3-1 outlining capital requirements for brokers.

Weighted Average Maturity (WAM). The average maturity of all the securities that comprise a portfolio.

Yield. Loosely refers to the annual return on an investment expressed as a percentage on an annual basis. For interest-bearing securities, the yield is a function of the rate, the purchase price, the income that can be earned from the reinvestment of income received prior to maturity, call or sale and the time from purchase to maturity, call or sale. Different formulas or methods are used to calculate yield. See Yield to Maturity and Total Return Analysis.

Yield-to-maturity. The rate of return yielded by a debt security held to maturity when both the interest payments and the investor's potential capital gain or loss are included in the calculation of the return.

FINRA* Summary Review
August 2, 2017 – August 13, 2020
Areas of Focus

<u>Firm</u>	<u>Lead Broker Experience</u>	<u>Lead Broker Disclosure Events</u>	<u>Firm Disclosure Events for Government Sector</u>	<u>Orange County Clients</u>
FHN	31 years	0	None	County of Orange, Irvine Ranch Water District, Orange, San Clemente, Santa Ana, Stanton, and Tustin
Raymond James	17 years	0	None	Huntington Beach, Irvine, Lake Forest, Orange County Water District, San Clemente, and Santa Ana
RBC Capital	33 years	0	None	County of Orange
Stifel Nicolaus	33 years	0	None	Irvine, Irvine Ranch Water District, Huntington Beach, and Orange
Wedbush	32 years	0	None	Aliso Viejo and Lake Forest



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
October 22, 2020

Agenda Item No. 2C
Consent Calendar

Biennial Review and Adoption of Revised Conflict of Interest Code

Contact(s) for Further Information

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Summary

The Political Reform Act requires that every local agency review its Conflict of Interest Code biennially to ensure that its designated positions are up to date. The Clerk of the Authority, General Counsel, Purchasing Manager, and Executive Management have reviewed the existing Code and recommend that the Board adopt the attached Resolution revising the Conflict of Interest Code for the Orange County Fire Authority (OCFA) (Attachment 1).

Prior Board/Committee Action(s)

The Board adopted its last revised Conflict of Interest Code on October 25, 2018. This Agenda item was continued from the September 24, 2020 Board Meeting at the request of staff.

RECOMMENDED ACTION(S)

1. Adopt the proposed Resolution entitled A RESOLUTION OF THE BOARD OF DIRECTORS OF THE ORANGE COUNTY FIRE AUTHORITY ADOPTING A CONFLICT OF INTEREST CODE WHICH SUPERSEDES ALL PRIOR CONFLICT OF INTEREST CODES, and;
2. Direct the Clerk of the Authority to submit the adopted Resolution to the Orange County Board of Supervisors, as the Code reviewing body, for approval.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

The Political Reform Act ("Act") (Gov. Code §8100 *et. seq.*) requires every public agency to adopt and implement a Conflict of Interest Code and review biennially to ensure that it is consistent with provisions of state law and organizational structure. Proposed revisions to the Code must be approved by the reviewing body. Since the Orange County Fire Authority's jurisdictional

boundaries are within the County of Orange, the County Board of Supervisors is our code reviewing body, and therefore must approve any amendments.

The Act prohibits a public official from using his or her official position to influence a governmental decision in which he or she has a financial interest. Every state and local agency must adopt a conflict of interest code that identifies all officials and employees within the agency who make governmental decisions based on the positions they hold, notwithstanding temporary assignments. The individuals in the designated positions must disclose their financial interests as specified in the agency's Conflict of Interest Code ("Code").

The law requires positions and disclosure categories to be included in the Code and requires individuals holding those positions to report their financial interests on a form called the Statement of Economic Interests (FPPC Form 700). The designated positions and certain consultants who hold positions that involve making or participating in the making of decisions, which may foreseeably have a material effect on the holder's financial interests must file the statement within specified periods of assuming or leaving office, and annually while holding the position.

Consultants

Consultants are currently included in the Conflict of Interest Code as potential filers. Staff has developed a questionnaire that will be sent to all consultants upon the approval of a contract that they will all be required to complete (Attachment 3). The completed questionnaire will be evaluated by the Clerk of the Authority and using the Written Determination Form (Attachment 4) will decide whether an FPPC Form 700 is required to be filed. Consultants that will be required to file are deemed to "participate in making a governmental decision" including but are not limited to:

- Negotiating, providing advice by way of research, investigation, or preparation of reports or analyses that will be relied upon as unbiased advice by an OCFA decision-maker; and
- Providing services that an OCFA employee functioning as a project manager would typically provide concerning procurements using public funds. Examples include preparing contract scopes of work, specifications, or cost estimates; assisting with contract negotiations; determining whether OCFA should make payment on an invoice; and crafting evaluation factors to be used in a procurement.

If applicable, it is not the business or firm providing services that is considered the consultant. The individual(s) working for the firm who provide the services are considered the consultants. These individuals would file statements of economic interests based on their personal financial interests and are subject to disqualification and other laws affecting public officials, in the same manner as other designated filers. The Questionnaire and Determination process will assist staff in identifying such consultants that would then be designated filers.

Procurement Process Committee Members

For several years, the Orange County Fire Authority Purchasing Division has required employees and other designated filers serving on a procurement evaluation committee to file a Conflict of Interest and Non-Disclosure Statement (Attachment 2).

The language and intent of the Conflict of Interest and Non-Disclosure Statement is similar to the Statement of Economic Interest; however, some procurement processes are significant in scope

and/or responsibility that may require full disclosure as provided for in the FPPC Form 700. The Purchasing Manager will utilize the consultants' questionnaire and determination forms as noted above to help determine if the employee/committee members participating in the procurement process should complete the FPPC Form 700. Prior to agreeing to serve as a committee member, the individual must agree to file either the Conflict of Interest and Disclosure Form or the FPPC Form 700 as determined by the Purchasing Manager and disclose any potential conflict of interest including financial interest, business interests, gifts, etc. Disclosure applies 12-months prior to commencement of the procurement process. Members filing an FPPC Form 700 form will be required to file an Assuming and Leaving Office Statement, in the same manner as other filers, if they are not already filing as designated filers.

The reason for including some procurement committee members as FPPC Form 700 filers, whose work is temporary in nature, is to avoid any potential conflicts of interest whether real or perceived and to protect the agency. Interests may arise during the testing of equipment, the selection of a vendor and/or preparing specifications on projects deemed significant in scope, amount, or deliberated over several months.

California Code of Regulations

The Fair Political Practices Commission has adopted a regulation containing a model conflict of interest code, which can be incorporated by reference and made part of the local agency's conflict of interest code (2 Cal. Code of Regulations § 18730) ("FPPC Model Code"). In October of 2018, the Board of Directors adopted the Model Code (Attachment 5). The FPPC Model together with the list of designated positions and the disclosure categories collectively constitutes the OCFA Conflict of Interest Code.

Recommended changes

Pursuant to State requirements, several classifications were reviewed and based on their duties to *make or participate in governmental decisions* are requested to be added to the list of designated filers.

Pursuant to FPPC definition, a public official makes a governmental decision, if the person:

- (1) Authorizes or directs any action;
- (2) Vote on matters;
- (3) Appoint a person;
- (4) Obligates or commits his or her agency to *any course of action*; or
- (5) Enters into any contractual agreement on behalf of his or her agency.

A public official participates in the making of a governmental decision, if the person provides information, an opinion, or a recommendation for the purpose of affecting the decision without significant intervening substantive review

After consideration of the above and review of classifications within the Authority, staff proposes the following changes:

ADDITIONS TO LIST OF CONFLICT OF INTEREST CODE FILERS:

<u>Department and Classification:</u>	<u>Disclosure Category</u>
Assistant Clerk of the Authority	OC-05
Assistant Treasurer	OC-27
Emergency Communications Center Manager	OC-41
Fire Battalion Chief (Spec Developer for Apparatus)	OC-41
Fire Battalion Chief (Spec Developer for PPE's)	OC-05
Fire Battalion Chief (US&R Logistics)	OC-05
Fire Captain (Spec Developer for Apparatus)	OC-41
Fire Captain (US&R Logistics)	OC-05
Fire Community Relations / Education Supervisor	OC-41
Fire Engineer (US&R Logistics)	OC-05
Firefighter/Paramedic (US&R Logistics)	OC-05
Geographic Information Systems Supervisor	OC-08
Legislative Analyst	OC-41
Payroll and Accounts Payable Manager	OC-11
Procurement Evaluation Committee Members	vary
Public Relations Manager	OC-41
Risk Management Safety Officer	OC-12
US&R Warehouse and Logistics Specialist	OC-05

Attachment(s)

1. Proposed Resolution including List of Designated Positions (Redline)
2. Conflict of Interest and Non-Disclosure Statement
3. Questionnaire to Determine Filing Obligation
4. Written Determination
5. Code of Regulations of FPPC § 18730

RESOLUTION NO. 2020-XX

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
ORANGE COUNTY FIRE AUTHORITY ADOPTING A
CONFLICT OF INTEREST CODE WHICH SUPERSEDES
ALL PRIOR CONFLICT OF INTEREST CODES**

WHEREAS, the Political Reform Act of 1974, Government Code Section 81000 et. seq. (“the Act”), requires a local government agency to adopt a Conflict of Interest Code pursuant to the Act; and

WHEREAS, the Fair Political Practices Commission has adopted a regulation, Title 2, California Code of Regulations, Section 18730, which contains terms for a standard model Conflict of Interest Code, which, together with amendments thereto, may be adopted by public agencies and incorporated by reference to save public agencies time and money by minimizing the actions required of such agencies to keep their codes in conformity with the Political Reform Act.

WHEREAS, the Orange County Fire Authority **previously adopted the Conflict of Interest Code as set forth in Resolution No. 2018-06**, and that Code now requires updating; and

WHEREAS, amendments to the Act have in the past and foreseeably will in the future require conforming amendments to be made to the Conflict of Interest Code; and

WHEREAS, **the persons holding designated positions defined in Exhibit A attached to and made part of this resolution shall file a Statement of Economic Interest pursuant to the requirements of the Conflict of Interest Code.**

WHEREAS, the disclosure categories as defined in Exhibit B are attached to and made a part of this resolution and shall require the designated positions to disclose pursuant to identified categories.

WHEREAS, this Resolution shall take effect immediately following the County of Orange Board of Supervisors approval of said resolution.

NOW THEREFORE, THE BOARD OF DIRECTORS OF THE ORANGE COUNTY FIRE AUTHORITY, DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The terms of Title 2, California Code of Regulations, Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission were approved by the Board of Directors on October 25, 2018 and hereby incorporated by reference and, together with Exhibits A and B constitutes the Conflict of Interest Code of the Orange County Fire Authority.

SECTION 2. The provisions of all Conflict of Interest Codes and Amendments thereto previously adopted by the Orange County Fire Authority are hereby superseded.

SECTION 3. The Filing Officer is hereby authorized to forward a copy of this Resolution to the Clerk of the Orange County Board of Supervisors for review and approval by the Orange County Board of Supervisors as required by California Government Code Section 87303.

PASSED, APPROVED, AND ADOPTED this ____ day of _____ 2020.

SHELLY HASSELBRINK, CHAIR
Board of Directors

ATTEST:

MARIA D. HUIZAR, CMC
Clerk of the Authority

APPROVED AS TO FORM:

By: _____
DAVID E. KENDIG,
General Counsel



ORANGE COUNTY FIRE AUTHORITY CONFLICT OF INTEREST CODE

The Political Reform Act, Government Code Sections 81000, et seq., requires state and local government agencies to adopt and promulgate Conflict of Interest Codes. The Fair Political Practices Commission has adopted a regulation (2 Cal. Code of Regs. Section 18730) which contains the terms of a standard Conflict of Interest Code, which may be incorporated by reference in an agency's code. After public notice and hearing it may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of Title 2 California Code of Regulations Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendix designating officials and employees and establishing disclosure categories, shall constitute the Conflict of Interest Code of the Orange County Fire Authority.

DESIGNATED EMPLOYEES

Designated employees (excluding consultants) shall file Statements of Economic Interests with the Clerk of the Orange County Board of Supervisors who will make the statements available for public inspection and reproduction (Government Code Section 81008). Consultants shall file Statements of Economic Interests with the Orange County Fire Authority Clerk of the Authority.

OFFICIALS WHO MANAGE PUBLIC INVESTMENTS

Officials who manage public investments, as defined by 2 Cal. Code of Regs. §18700.3, are NOT subject to the Authority's code, but are subject to the disclosure requirements of the Act (Government Code Section 87200 et seq.). [Regs. §18730(b)(3)]. These positions are listed here for informational purposes only.

It has been determined that the positions listed below are Orange County Fire Authority officials who manage public investments:

Board of Directors
Fire Chief
Treasurer
Deputy Chief / Administration & Support Bureau
Assistant Chief / Business Services Department

These positions shall file original Statements of Economic Interests with the Clerk of the Orange County Board of Supervisors.

The disclosure categories and requirements for these positions are set forth in Article 2 of Chapter 7 of the Political Reform Act, Government Code Section 87200 et seq. They generally require the full disclosure of interests in real property in the agency's jurisdiction, as well as investments, business positions and sources of income (including gifts, loans, and travel payments), **Disclosure Category OC-41**.

ORANGE COUNTY FIRE AUTHORITY

CONFLICT OF INTEREST CODE LIST OF DESIGNATED POSITIONS

Designated Position	Disclosure Category
Accounting Manager	OC-27
Assistant Chief / Business Services Department	OC-41
Assistant Chief / Community Risk Services Department	OC-41
Assistant Chief / Emergency Medical Services Department	OC-41
Assistant Chief / Field Operations Services Department	OC-41
Assistant Chief / Logistics Department	OC-41
Assistant Clerk of the Authority	OC-05
Assistant Fire Marshal	OC-29
Assistant Information Technology Manager	OC-08
Assistant Purchasing Agent	OC-05 OC-41
Assistant Treasurer	OC-27
Board of Directors	OC-41
Buyer	OC-05 OC-41
Clerk of the Authority	OC-05
Construction Manager	OC-32
Consultant	vary OC-30
Deputy Chief / Administration and Support Bureau	OC-41
Deputy Chief / Emergency Operations Bureau	OC-41
Deputy Fire Marshal	OC-29
Director of Communications (Corporate Communications)	OC-41
Emergency Communications Center Manager	OC-41
EMS Coordinator	OC-05
EMS Medical Director	OC-05
Facilities Maintenance Manager	OC-41
Finance Manager	OC-27

Designated Position	Disclosure Category
Fire Battalion Chief (Emergency Command Center)	OC-05
Fire Battalion Chief (Emergency Medical Services)	OC-05
Fire Battalion Chief (Spec Developer for Apparatus)	OC-41
Fire Battalion Chief (Spec Developer for PPEs)	OC-05
Fire Battalion Chief (US&R Logistics)	OC-05
Fire Captain (Spec Developer for Apparatus)	OC-41
Fire Captain (Spec Developer for PPEs)	OC-05
Fire Captain (US&R Logistics)	OC-05
Fire Chief	OC-41
Fire Community Relations / Education Supervisor	OC-41
Fire Division Chief	OC-41
Fire Engineer (Spec Developer for Apparatus)	OC-41
Fire Engineer (US&R Logistics)	OC-05
Fire Prevention Analyst	OC-29
Fire Prevention Specialist	OC-29
Fire Safety Engineer	OC-29
Firefighter/Paramedic (US&R Logistics)	OC-05
Fleet Services Manager	OC-05
Fleet Services Supervisor	OC-05
General Counsel	OC-30
Geographic Information Systems Supervisor	OC-08
Human Resources Director	OC-11
Human Resources Manager	OC-11
Information Technology Manager	OC-08
Information Technology Supervisor	OC-08
Legislation Analyst	OC-41
Organizational Development and Training Program Manager	OC-05
Payroll and Accounts Payable Manager	OC-11

Designated Position	Disclosure Category
Procurement Evaluation Committee Members	vary
Property Manager	OC-41
Public Relations Manager	OC-41
Purchasing and Materials Manager	OC-05
Risk Management Analyst	OC-12
Risk Management Safety Officer	OC-12
Risk Manager	OC-12
Senior Fire Apparatus Parts Specialist	OC-05
Senior Fire Prevention Specialist	OC-29
Service Center Supervisor	OC-05
Supervising Purchasing Agent	OC-05
Treasurer *	OC-41
US&R Warehouse and Logistics Specialist	OC-05

ORANGE COUNTY FIRE AUTHORITY

CONFLICT OF INTEREST CODE

DISCLOSURE CATEGORIES/DESCRIPTIONS

Required filers must review Form 700 Schedules and complete forms as mandated by the specific Disclosure Category designated.

DISCLOSURE CATEGORY	DISCLOSURE DESCRIPTION*
OC-05	All INVESTMENTS in, BUSINESS POSITIONS and INCOME, (including gifts, loans, and travel payments) from <u>sources that provide services, supplies, materials, machinery, equipment</u> (including training and consulting services) used by the County Department, Authority or District, as applicable.
OC-08	All INVESTMENTS in, BUSINESS POSITIONS with and INCOME, (including gifts, loans and travel payments) from <u>sources that develop or provide computer hardware/software, voice data communications, or data processing goods, supplies, equipment, or services</u> (including training and consulting services) used by the County Department, Authority or District, as applicable.
OC-11	All interests in REAL PROPERTY in Orange County or located entirely or partly within the Authority or District boundaries as applicable, as well as INVESTMENTS in, BUSINESS POSITIONS with and INCOME (including gifts, loans and travel payments) from sources that are <u>engaged in the supply of equipment related to recruitment, employment search & marketing, classification, training, or negotiation with personnel; employee benefits, and health and welfare benefits.</u>
OC-12	All interests in REAL PROPERTY in Orange County, the District, or Authority, as applicable, as well as INVESTMENTS in, BUSINESS POSITIONS with and INCOME (including gifts, loans and travel payments) from sources that <u>invest funds or engage in the business of insurance</u> including, but not limited to insurance companies, carriers, holding companies, underwriters, brokers, solicitors, agents, adjusters, claims managers and actuaries; from financial institutions including but not limited to, banks, savings & loan associations and credit unions or sources that have filed a claim, or have a claim pending, against Orange County, the Authority or the District, as applicable.
OC-27	All INVESTMENTS in, BUSINESS POSITIONS with and sources of INCOME (including gifts, loans, and travel payments) from sources that are <u>engaged in banking and/or investment business.</u>

DISCLOSURE CATEGORY	DISCLOSURE DESCRIPTION*
OC-29	All INVESTMENTS in, BUSINESS POSITIONS with and INCOME (including gifts, loans, and travel payments) from <i>sources that are subject to inspection or regulation</i> by the County Department, Authority or District, as applicable.
OC-30	<p><i>Consultants</i> shall be included in the list of designated employees and shall disclose pursuant to the BROADEST CATEGORY in the code subject to the following limitation:</p> <p>The County Department Head/Director/General Manager/Superintendent/etc. may determine that a particular consultant, although a “designated position,” is hired to perform a range of duties that is limited in scope and thus is not required to fully comply with the disclosure requirements in this section.</p> <p>Such written determination shall include a description of the consultant’s duties and based upon that description, a statement of the extent of disclosure required. The determination of disclosure is a public record and shall be filed with the Form 700 and retained by the Filing Officer for public inspection.</p>
OC-32	All INVESTMENTS in, BUSINESS POSITIONS with and INCOME (including gifts loans and travel payments) from sources that are <i>engaged in any real estate activity</i> within the geographical boundaries of the County, District or Authority as applicable, including but not limited to real estate appraisal, development, construction, sales, brokerage, leasing, lending, insurance or property management.
OC-41	All interests in REAL PROPERTY in Orange County, the District or Authority, as applicable, as well as INVESTMENTS in, BUSINESS POSITIONS with and INCOME (including gifts, loans and travel payments) from <i>sources that provide or which it is foreseeable will provide services, supplies, materials, machinery, vehicles, or equipment</i> (including training and consulting services) used by the County Department, Authority or District, as applicable.

* As used herein, the terms “Department,” “County Department,” “District” and “Authority” shall all mean “Orange County Fire Authority”



CONFLICT OF INTEREST AND NON-DISCLOSURE STATEMENT
SOLICITATION NO. _____
 (Description)

You have been asked to participate in the development of a competitive solicitation and/or the evaluation of offers received in response to a competitive solicitation. It is essential that the integrity of the solicitation process be maintained to ensure that the maximum amount of competition is received, and that each bidder/offeror is given fair and equal consideration. The specifications and/or scope of services must be written to encourage maximum and fair competition. The written responses to the solicitation and any subsequent field testing, clarifications and/or negotiations must stand alone. You are required to be particularly objective and guard against any tendency to favor a particular firm or individual. Previous experiences with the bidder/offeror may be taken into consideration when evaluating qualifications and experience as stated in the solicitation. Offers from the following firms may be evaluated:

(List of Firms)

NON-CONFLICT OF INTEREST

The term "conflict of interest" refers to situations in which financial or other personal considerations may adversely affect or have the appearance of adversely affecting an evaluator's judgment in the review process of proposals received in relation to the above solicitation. You are required to report to the Purchasing Manager any actual or potential conflict of interest. By initialing below, you certify the following:

_____ I certify that neither I nor any member of my immediate family has a material personal or financial relationship with any bidder/offeror, or with a direct competitor of any bidder/offeror under consideration by this proposal evaluation committee. I further certify that no relationship, bias or ethical conflict exists which will prevent me from evaluating any offer solely on its merits and in accordance with the solicitation evaluation criteria.

NON-DISCLOSURE

The confidentiality of the process shall be maintained. Therefore, committee members shall not give individual opinions to bidders/offerors, comment on committee deliberations to people outside of the solicitation process, or share information provided by one bidder/offeror with another prior to award. Any inquiries regarding the evaluation of this particular solicitation must be directed to the Purchasing Manager. By initialing below, you certify the following:

_____ I shall keep all evaluation proceedings in strict confidence prior to contract award. I will do my best to base my recommendation for contract award solely upon the evaluation criteria in the solicitation and each bidder/offeror's response.

VIOLATION OF POLICY

In addition to any penalty contained in any provision of Federal or State law or policy, individuals who violate OCFA Policy or Procedure may be subject to discipline up to and including termination.

ACKNOWLEDGMENT

I have read, understand, and agree to the above, and certify that I will adhere to the instructions presented to the committee for reviewing the received proposals or developing a scope of services. I know of no conflict of interest on my part which would compromise my objectivity, nor do I have any personal interest in seeing that a specific bidder is awarded the contract. I agree to report promptly any Direct or Indirect Financial Interest or Other Interest situation that arises during the process to the Purchasing Manager and fully comply with said provisions.

 Print Name

 Signature

 Date



ORANGE COUNTY FIRE AUTHORITY

P. O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602-0125

Brian Fennessy, Fire Chief

(714) 573-6000

www.ocfa.org

QUESTIONNAIRE TO DETERMINE CONFLICT OF INTEREST CODE FILING OBLIGATION

Designated filers, as defined by Section 18701 of the Regulations of the Fair Political Practices Commission, Title 2, Division 6 of the California Code of Regulations, are required to file a Statement of Economic Interests within 30 days of assuming office / approval of a contract with the Orange County Fire Authority, and within 30 days of completion of service.

The answers to the following questionnaire will help to determine whether the scope of duties to be performed includes the making or participating in the making of governmental decisions which may foreseeably have a material effect on the consultant's/evaluation committee member's own financial interests.

TO BE COMPLETED BY OCFA STAFF:

Name: _____

Department: _____

Email: _____ Phone _____

Consultant Name
(if applicable): _____

Solicitation /
Project
Description: _____

Contract Term: Begins: _____ Ends: _____

Serving the Cities of: Aliso Viejo • Buena Park • Cypress • Dana Point • Garden Grove • Irvine • Laguna Hills • Laguna Niguel • Laguna Woods • Lake Forest • La Palma • Los Alamitos • Mission Viejo • 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

TO BE COMPLETED BY CONSULTANT OR PURCHASING MANAGER:

A.	Will consultant/evaluation committee members make governmental decisions as follow:		
	1. Approve a rate, rule or regulation?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	2. Adopt or enforce a law?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	3. Issue, deny, suspend or revoke any permit, license, application, certificate, approval, order, or similar authorization or entitlement?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	4. Authorize the agency to enter into, modify, or renew a contract provided it is the type of contract which requires agency approval?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	5. Grant agency approval to a contract which requires agency approval and to which the agency is a party, or to the specifications for such a contract?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	6. Grant agency approval to a plan, design, report study, or similar item?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	7. Adopt or grant agency approval of policies, standards, or guidelines for the agency, or for any subdivision thereof?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	8. Evaluate, test, or recommend specialized equipment to be included in the scope of RFP/RFQ or for final approval?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
B.	Will the consultant serve in a staff capacity with the agency and in that capacity perform the same or substantially all the same duties for the agency that would otherwise be performed by an individual holding a position specified in the Conflict of Interest Code?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
C.	Will the consultant/evaluation committee members manage public investments?	YES <input type="checkbox"/>	NO <input type="checkbox"/>

Please complete questionnaire in its entirety and remit to the Clerk of the Authority at coa@ocfa.org within 5 days of receipt. If you have any questions, please contact Purchasing Manager or Clerk of the Authority directly.



ORANGE COUNTY FIRE AUTHORITY

P. O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602-0125

Brian Fennessy, Fire Chief

(714) 573-6000

www.ocfa.org

WRITTEN DETERMINATION REGARDING CONFLICT OF INTEREST CODE FILING OBLIGATION

Pursuant to the duly adopted Conflict of Interest Code, this document shall serve as the written determination regarding the following consultant/evaluation committee, the retention of whose services are under consideration by the Authority:

Consultant Name

(if applicable):

Solicitation /
Project

Description:

Contract Term:

Begins:

Ends:

Based upon review of the attached Conflict of Interest Questionnaire, it is hereby determined that:

_____ This consultant's/evaluation committee duties are *limited in scope* and thus will be required to complete a Conflict of Interest and Non-Disclosure Statement.

_____ This consultant's/evaluation committee duties are *significant in scope* and thus will be required to comply with the disclosure requirements in the Conflict of Interest Code (FPPC Form 700).

The Statement of Economic Interests shall be filed with the Clerk of the Authority Office no later than 30 days after the OCFA has rendered said determination to file an FPPC Form 700 or within 7 days of commencing the procurement process for the evaluation committee members.

The Statement of Economic Interests shall disclose all financial interests within the following disclosure categories, as delineated in the Conflict of Interest Code:

Reviewed by:

Maria D. Huizar
Clerk of the Authority

Date

(Regulations of the Fair Political Practices Commission, Title 2, Division 6, California Code of Regulations.)

§ 18730. Provisions of Conflict of Interest Codes.

(a) Incorporation by reference of the terms of this regulation along with the designation of employees and the formulation of disclosure categories in the Appendix referred to below constitute the adoption and promulgation of a conflict of interest code within the meaning of Section 87300 or the amendment of a conflict of interest code within the meaning of Section 87306 if the terms of this regulation are substituted for terms of a conflict of interest code already in effect. A code so amended or adopted and promulgated requires the reporting of reportable items in a manner substantially equivalent to the requirements of article 2 of chapter 7 of the Political Reform Act, Sections 81000, et seq. The requirements of a conflict of interest code are in addition to other requirements of the Political Reform Act, such as the general prohibition against conflicts of interest contained in Section 87100, and to other state or local laws pertaining to conflicts of interest.

(b) The terms of a conflict of interest code amended or adopted and promulgated pursuant to this regulation are as follows:

(1) Section 1. Definitions.

The definitions contained in the Political Reform Act of 1974, regulations of the Fair Political Practices Commission (Regulations 18110, et seq.), and any amendments to the Act or regulations, are incorporated by reference into this conflict of interest code.

(2) Section 2. Designated Employees.

The persons holding positions listed in the Appendix are designated employees. It has been determined that these persons make or participate in the making of decisions which may foreseeably have a material effect on economic interests.

(3) Section 3. Disclosure Categories.

This code does not establish any disclosure obligation for those designated employees who are also specified in Section 87200 if they are designated in this code in that same capacity or if the geographical jurisdiction of this agency is the same as or is wholly included within the jurisdiction in which those persons must report their economic interests pursuant to article 2 of chapter 7 of the Political Reform Act, Sections 87200, et seq.

In addition, this code does not establish any disclosure obligation for any designated employees who are designated in a conflict of interest code for another agency, if all of the following apply:

(A) The geographical jurisdiction of this agency is the same as or is wholly included within the jurisdiction of the other agency;

(B) The disclosure assigned in the code of the other agency is the same as that required under article 2 of chapter 7 of the Political Reform Act, Section 87200; and

(C) The filing officer is the same for both agencies.¹

Such persons are covered by this code for disqualification purposes only. With respect to all other designated employees, the disclosure categories set forth in the Appendix specify which kinds of economic interests are reportable. Such a designated employee shall disclose in his or her statement of economic interests those economic interests he or she has which are of the kind described in the disclosure categories to which he or she is assigned in the Appendix. It has been determined that the economic interests set forth in a designated employee's disclosure categories

are the kinds of economic interests which he or she foreseeably can affect materially through the conduct of his or her office.

(4) Section 4. Statements of Economic Interests: Place of Filing.

The code reviewing body shall instruct all designated employees within its code to file statements of economic interests with the agency or with the code reviewing body, as provided by the code reviewing body in the agency's conflict of interest code.²

(5) Section 5. Statements of Economic Interests: Time of Filing.

(A) Initial Statements. All designated employees employed by the agency on the effective date of this code, as originally adopted, promulgated and approved by the code reviewing body, shall file statements within 30 days after the effective date of this code. Thereafter, each person already in a position when it is designated by an amendment to this code shall file an initial statement within 30 days after the effective date of the amendment.

(B) Assuming Office Statements. All persons assuming designated positions after the effective date of this code shall file statements within 30 days after assuming the designated positions, or if subject to State Senate confirmation, 30 days after being nominated or appointed.

(C) Annual Statements. All designated employees shall file statements no later than April 1. If a person reports for military service as defined in the Servicemember's Civil Relief Act, the deadline for the annual statement of economic interests is 30 days following his or her return to office, provided the person, or someone authorized to represent the person's interests, notifies the filing officer in writing prior to the applicable filing deadline that he or she is subject to that federal statute and is unable to meet the applicable deadline, and provides the filing officer verification of his or her military status.

(D) Leaving Office Statements. All persons who leave designated positions shall file statements within 30 days after leaving office.

(5.5) Section 5.5. Statements for Persons Who Resign Prior to Assuming Office.

Any person who resigns within 12 months of initial appointment, or within 30 days of the date of notice provided by the filing officer to file an assuming office statement, is not deemed to have assumed office or left office, provided he or she did not make or participate in the making of, or use his or her position to influence any decision and did not receive or become entitled to receive any form of payment as a result of his or her appointment. Such persons shall not file either an assuming or leaving office statement.

(A) Any person who resigns a position within 30 days of the date of a notice from the filing officer shall do both of the following:

(1) File a written resignation with the appointing power; and

(2) File a written statement with the filing officer declaring under penalty of perjury that during the period between appointment and resignation he or she did not make, participate in the making, or use the position to influence any decision of the agency or receive, or become entitled to receive, any form of payment by virtue of being appointed to the position.

(6) Section 6. Contents of and Period Covered by Statements of Economic Interests.

(A) Contents of Initial Statements.

Initial statements shall disclose any reportable investments, interests in real property and business positions held on the effective date of the code and income received during the 12 months prior to the effective date of the code.

(B) Contents of Assuming Office Statements.

Assuming office statements shall disclose any reportable investments, interests in real property and business positions held on the date of assuming office or, if subject to State Senate confirmation or appointment, on the date of nomination, and income received during the 12 months prior to the date of assuming office or the date of being appointed or nominated, respectively.

(C) Contents of Annual Statements. Annual statements shall disclose any reportable investments, interests in real property, income and business positions held or received during the previous calendar year provided, however, that the period covered by an employee's first annual statement shall begin on the effective date of the code or the date of assuming office whichever is later, or for a board or commission member subject to Section 87302.6, the day after the closing date of the most recent statement filed by the member pursuant to Regulation 18754.

(D) Contents of Leaving Office Statements.

Leaving office statements shall disclose reportable investments, interests in real property, income and business positions held or received during the period between the closing date of the last statement filed and the date of leaving office.

(7) Section 7. Manner of Reporting.

Statements of economic interests shall be made on forms prescribed by the Fair Political Practices Commission and supplied by the agency, and shall contain the following information:

(A) Investment and Real Property Disclosure.

When an investment or an interest in real property³ is required to be reported,⁴ the statement shall contain the following:

1. A statement of the nature of the investment or interest;

2. The name of the business entity in which each investment is held, and a general description of the business activity in which the business entity is engaged;

3. The address or other precise location of the real property;

4. A statement whether the fair market value of the investment or interest in real property equals or exceeds \$2,000, exceeds \$10,000, exceeds \$100,000, or exceeds \$1,000,000.

(B) Personal Income Disclosure. When personal income is required to be reported,⁵ the statement shall contain:

1. The name and address of each source of income aggregating \$500 or more in value, or \$50 or more in value if the income was a gift, and a general description of the business activity, if any, of each source;

2. A statement whether the aggregate value of income from each source, or in the case of a loan, the highest amount owed to each source, was \$1,000 or less, greater than \$1,000, greater than \$10,000, or greater than \$100,000;

3. A description of the consideration, if any, for which the income was received;

4. In the case of a gift, the name, address and business activity of the donor and any intermediary through which the gift was made; a description of the gift; the amount or value of the gift; and the date on which the gift was received;

5. In the case of a loan, the annual interest rate and the security, if any, given for the loan and the term of the loan.

(C) Business Entity Income Disclosure. When income of a business entity, including income of a sole proprietorship, is required to be reported,⁶ the statement shall contain:

1. The name, address, and a general description of the business activity of the business entity;

2. The name of every person from whom the business entity received payments if the filer's pro rata share of gross receipts from such person was equal to or greater than \$10,000.

(D) Business Position Disclosure. When business positions are required to be reported, a designated employee shall list the name and address of each business entity in which he or she is a director, officer, partner, trustee, employee, or in which he or she holds any position of management, a description of the business activity in which the business entity is engaged, and the designated employee's position with the business entity.

(E) Acquisition or Disposal During Reporting Period. In the case of an annual or leaving office statement, if an investment or an interest in real property was partially or wholly acquired or disposed of during the period covered by the statement, the statement shall contain the date of acquisition or disposal.

(8) Section 8. Prohibition on Receipt of Honoraria.

(A) No member of a state board or commission, and no designated employee of a state or local government agency, shall accept any honorarium from any source, if the member or employee would be required to report the receipt of income or gifts from that source on his or her statement of economic interests.

(B) This section shall not apply to any part-time member of the governing board of any public institution of higher education, unless the member is also an elected official.

(C) Subdivisions (a), (b), and (c) of Section 89501 shall apply to the prohibitions in this section.

(D) This section shall not limit or prohibit payments, advances, or reimbursements for travel and related lodging and subsistence authorized by Section 89506.

(8.1) Section 8.1. Prohibition on Receipt of Gifts in Excess of \$470.

(A) No member of a state board or commission, and no designated employee of a state or local government agency, shall accept gifts with a total value of more than \$470 in a calendar year from any single source, if the member or employee would be required to report the receipt of income or gifts from that source on his or her statement of economic interests.

(B) This section shall not apply to any part-time member of the governing board of any public institution of higher education, unless the member is also an elected official.

(C) Subdivisions (e), (f), and (g) of Section 89503 shall apply to the prohibitions in this section.

(8.2) Section 8.2. Loans to Public Officials.

(A) No elected officer of a state or local government agency shall, from the date of his or her election to office through the date that he or she vacates office, receive a personal loan from any officer, employee, member, or consultant of the state or local government agency in which the elected officer holds office or over which the elected officer's agency has direction and control.

(B) No public official who is exempt from the state civil service system pursuant to subdivisions (c), (d), (e), (f), and (g) of Section 4 of Article VII of the Constitution shall, while he or she holds office, receive a personal loan from any officer, employee, member, or consultant of the state or local government agency in which the public official holds office or over which the public official's agency has direction and control. This subdivision shall not apply to loans made to a public official whose duties are solely secretarial, clerical, or manual.

(C) No elected officer of a state or local government agency shall, from the date of his or her election to office through the date that he or she vacates office, receive a personal loan from any person who has a contract with the state or local government agency to which that elected

officer has been elected or over which that elected officer's agency has direction and control.

This subdivision shall not apply to loans made by banks or other financial institutions or to any indebtedness created as part of a retail installment or credit card transaction, if the loan is made or the indebtedness created in the lender's regular course of business on terms available to members of the public without regard to the elected officer's official status.

(D) No public official who is exempt from the state civil service system pursuant to subdivisions (c), (d), (e), (f), and (g) of Section 4 of Article VII of the Constitution shall, while he or she holds office, receive a personal loan from any person who has a contract with the state or local government agency to which that elected officer has been elected or over which that elected officer's agency has direction and control. This subdivision shall not apply to loans made by banks or other financial institutions or to any indebtedness created as part of a retail installment or credit card transaction, if the loan is made or the indebtedness created in the lender's regular course of business on terms available to members of the public without regard to the elected officer's official status. This subdivision shall not apply to loans made to a public official whose duties are solely secretarial, clerical, or manual.

(E) This section shall not apply to the following:

1. Loans made to the campaign committee of an elected officer or candidate for elective office.
2. Loans made by a public official's spouse, child, parent, grandparent, grandchild, brother, sister, parent-in-law, brother-in-law, sister-in-law, nephew, niece, aunt, uncle, or first cousin, or the spouse of any such persons, provided that the person making the loan is not acting as an agent or intermediary for any person not otherwise exempted under this section.
3. Loans from a person which, in the aggregate, do not exceed \$500 at any given time.

4. Loans made, or offered in writing, before January 1, 1998.

(8.3) Section 8.3. Loan Terms.

(A) Except as set forth in subdivision (B), no elected officer of a state or local government agency shall, from the date of his or her election to office through the date he or she vacates office, receive a personal loan of \$500 or more, except when the loan is in writing and clearly states the terms of the loan, including the parties to the loan agreement, date of the loan, amount of the loan, term of the loan, date or dates when payments shall be due on the loan and the amount of the payments, and the rate of interest paid on the loan.

(B) This section shall not apply to the following types of loans:

1. Loans made to the campaign committee of the elected officer.

2. Loans made to the elected officer by his or her spouse, child, parent, grandparent, grandchild, brother, sister, parent-in-law, brother-in-law, sister-in-law, nephew, niece, aunt, uncle, or first cousin, or the spouse of any such person, provided that the person making the loan is not acting as an agent or intermediary for any person not otherwise exempted under this section.

3. Loans made, or offered in writing, before January 1, 1998.

(C) Nothing in this section shall exempt any person from any other provision of Title 9 of the Government Code.

(8.4) Section 8.4. Personal Loans.

(A) Except as set forth in subdivision (B), a personal loan received by any designated employee shall become a gift to the designated employee for the purposes of this section in the following circumstances:

1. If the loan has a defined date or dates for repayment, when the statute of limitations for filing an action for default has expired.

2. If the loan has no defined date or dates for repayment, when one year has elapsed from the later of the following:

- a. The date the loan was made.
- b. The date the last payment of \$100 or more was made on the loan.
- c. The date upon which the debtor has made payments on the loan aggregating to less than \$250 during the previous 12 months.

(B) This section shall not apply to the following types of loans:

- 1. A loan made to the campaign committee of an elected officer or a candidate for elective office.
- 2. A loan that would otherwise not be a gift as defined in this title.
- 3. A loan that would otherwise be a gift as set forth under subdivision (A), but on which the creditor has taken reasonable action to collect the balance due.
- 4. A loan that would otherwise be a gift as set forth under subdivision (A), but on which the creditor, based on reasonable business considerations, has not undertaken collection action. Except in a criminal action, a creditor who claims that a loan is not a gift on the basis of this paragraph has the burden of proving that the decision for not taking collection action was based on reasonable business considerations.
- 5. A loan made to a debtor who has filed for bankruptcy and the loan is ultimately discharged in bankruptcy.

(C) Nothing in this section shall exempt any person from any other provisions of Title 9 of the Government Code.

(9) Section 9. Disqualification.

No designated employee shall make, participate in making, or in any way attempt to use his or her official position to influence the making of any governmental decision which he or she knows or has reason to know will have a reasonably foreseeable material financial effect, distinguishable from its effect on the public generally, on the official or a member of his or her immediate family or on:

(A) Any business entity in which the designated employee has a direct or indirect investment worth \$2,000 or more;

(B) Any real property in which the designated employee has a direct or indirect interest worth \$2,000 or more;

(C) Any source of income, other than gifts and other than loans by a commercial lending institution in the regular course of business on terms available to the public without regard to official status, aggregating \$500 or more in value provided to, received by or promised to the designated employee within 12 months prior to the time when the decision is made;

(D) Any business entity in which the designated employee is a director, officer, partner, trustee, employee, or holds any position of management; or

(E) Any donor of, or any intermediary or agent for a donor of, a gift or gifts aggregating \$470 or more provided to, received by, or promised to the designated employee within 12 months prior to the time when the decision is made.

(9.3) Section 9.3. Legally Required Participation.

No designated employee shall be prevented from making or participating in the making of any decision to the extent his or her participation is legally required for the decision to be

made. The fact that the vote of a designated employee who is on a voting body is needed to break a tie does not make his or her participation legally required for purposes of this section.

(9.5) Section 9.5. Disqualification of State Officers and Employees.

In addition to the general disqualification provisions of section 9, no state administrative official shall make, participate in making, or use his or her official position to influence any governmental decision directly relating to any contract where the state administrative official knows or has reason to know that any party to the contract is a person with whom the state administrative official, or any member of his or her immediate family has, within 12 months prior to the time when the official action is to be taken:

(A) Engaged in a business transaction or transactions on terms not available to members of the public, regarding any investment or interest in real property; or

(B) Engaged in a business transaction or transactions on terms not available to members of the public regarding the rendering of goods or services totaling in value \$1,000 or more.

(10) Section 10. Disclosure of Disqualifying Interest.

When a designated employee determines that he or she should not make a governmental decision because he or she has a disqualifying interest in it, the determination not to act may be accompanied by disclosure of the disqualifying interest.

(11) Section 11. Assistance of the Commission and Counsel.

Any designated employee who is unsure of his or her duties under this code may request assistance from the Fair Political Practices Commission pursuant to Section 83114 and Regulations 18329 and 18329.5 or from the attorney for his or her agency, provided that nothing in this section requires the attorney for the agency to issue any formal or informal opinion.

(12) Section 12. Violations.

This code has the force and effect of law. Designated employees violating any provision of this code are subject to the administrative, criminal and civil sanctions provided in the Political Reform Act, Sections 81000-91014. In addition, a decision in relation to which a violation of the disqualification provisions of this code or of Section 87100 or 87450 has occurred may be set aside as void pursuant to Section 91003.

¹ Designated employees who are required to file statements of economic interests under any other agency's conflict of interest code, or under article 2 for a different jurisdiction, may expand their statement of economic interests to cover reportable interests in both jurisdictions, and file copies of this expanded statement with both entities in lieu of filing separate and distinct statements, provided that each copy of such expanded statement filed in place of an original is signed and verified by the designated employee as if it were an original. See Section 81004.

² See Section 81010 and Regulation 18115 for the duties of filing officers and persons in agencies who make and retain copies of statements and forward the originals to the filing officer.

³ For the purpose of disclosure only (not disqualification), an interest in real property does not include the principal residence of the filer.

⁴ Investments and interests in real property which have a fair market value of less than \$2,000 are not investments and interests in real property within the meaning of the Political Reform Act. However, investments or interests in real property of an individual include those held by the individual's spouse and dependent children as well as a pro rata share of any investment or interest in real property of any business entity or trust in which the individual, spouse and dependent children own, in the aggregate, a direct, indirect or beneficial interest of 10 percent or greater.

⁵ A designated employee's income includes his or her community property interest in the income of his or her spouse but does not include salary or reimbursement for expenses received from a state, local or federal government agency.

⁶ Income of a business entity is reportable if the direct, indirect or beneficial interest of the filer and the filer's spouse in the business entity aggregates a 10 percent or greater interest. In addition, the disclosure of persons who are clients or customers of a business entity is required only if the clients or customers are within one of the disclosure categories of the filer.

Note: Authority cited: Section 83112, Government Code. Reference: Sections 87103(e), 87300-87302, 89501, 89502 and 89503, Government Code.

HISTORY

1. New section filed 4-2-80 as an emergency; effective upon filing (Register 80, No. 14).
Certificate of Compliance included.
2. Editorial correction (Register 80, No. 29).
3. Amendment of subsection (b) filed 1-9-81; effective thirtieth day thereafter (Register 81, No. 2).
4. Amendment of subsection (b)(7)(B)1. filed 1-26-83; effective thirtieth day thereafter (Register 83, No. 5).
5. Amendment of subsection (b)(7)(A) filed 11-10-83; effective thirtieth day thereafter (Register 83, No. 46).
6. Amendment filed 4-13-87; operative 5-13-87 (Register 87, No. 16).
7. Amendment of subsection (b) filed 10-21-88; operative 11-20-88 (Register 88, No. 46).
8. Amendment of subsections (b)(8)(A) and (b)(8)(B) and numerous editorial changes filed 8-28-90; operative 9-27-90 (Reg. 90, No. 42).

9. Amendment of subsections (b)(3), (b)(8) and renumbering of following subsections and amendment of Note filed 8-7-92; operative 9-7-92 (Register 92, No. 32).
10. Amendment of subsection (b)(5.5) and new subsections (b)(5.5)(A)-(A)(2) filed 2-4-93; operative 2-4-93 (Register 93, No. 6).
11. Change without regulatory effect adopting Conflict of Interest Code for California Mental Health Planning Council filed 11-22-93 pursuant to title 1, section 100, California Code of Regulations (Register 93, No. 48). Approved by Fair Political Practices Commission 9-21-93.
12. Change without regulatory effect redesignating Conflict of Interest Code for California Mental Health Planning Council as chapter 62, section 55100 filed 1-4-94 pursuant to title 1, section 100, California Code of Regulations (Register 94, No. 1).
13. Editorial correction adding History 11 and 12 and deleting duplicate section number (Register 94, No. 17).
14. Amendment of subsection (b)(8), designation of subsection (b)(8)(A), new subsection (b)(8)(B), and amendment of subsections (b)(8.1)-(b)(8.1)(B), (b)(9)(E) and Note filed 3-14-95; operative 3-14-95 pursuant to Government Code section 11343.4(d) (Register 95, No. 11).
15. Editorial correction inserting inadvertently omitted language in footnote 4 (Register 96, No. 13).
16. Amendment of subsections (b)(8)(A)-(B) and (b)(8.1)(A), repealer of subsection (b)(8.1)(B), and amendment of subsection (b)(12) filed 10-23-96; operative 10-23-96 pursuant to Government Code section 11343.4(d) (Register 96, No. 43).
17. Amendment of subsections (b)(8.1) and (9)(E) filed 4-9-97; operative 4-9-97 pursuant to Government Code section 11343.4(d) (Register 97, No. 15).

18. Amendment of subsections (b)(7)(B)5., new subsections (b)(8.2)-(b)(8.4)(C) and amendment of Note filed 8-24-98; operative 8-24-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 35).

19. Editorial correction of subsection (a) (Register 98, No. 47).

20. Amendment of subsections (b)(8.1), (b)(8.1)(A) and (b)(9)(E) filed 5-11-99; operative 5-11-99 pursuant to Government Code section 11343.4(d) (Register 99, No. 20).

21. Amendment of subsections (b)(8.1)-(b)(8.1)(A) and (b)(9)(E) filed 12-6-2000; operative 1-1-2001 pursuant to the 1974 version of Government Code section 11380.2 and Title 2, California Code of Regulations, section 18312(d) and (e) (Register 2000, No. 49).

22. Amendment of subsections (b)(3) and (b)(10) filed 1-10-2001; operative 2-1-2001.

Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2001, No. 2).

23. Amendment of subsections (b)(7)(A)4., (b)(7)(B)1.-2., (b)(8.2)(E)3., (b)(9)(A)-(C) and footnote 4. filed 2-13-2001. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2001, No. 7).

24. Amendment of subsections (b)(8.1)-(b)(8.1)(A) filed 1-16-2003; operative 1-1-2003.

Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District,

nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2003, No. 3).

25. Editorial correction of History 24 (Register 2003, No. 12).

26. Editorial correction removing extraneous phrase in subsection (b)(9.5)(B) (Register 2004, No. 33).

27. Amendment of subsections (b)(2)-(3), (b)(3)(C), (b)(6)(C), (b)(8.1)-(b)(8.1)(A), (b)(9)(E) and (b)(11)-(12) filed 1-4-2005; operative 1-1-2005 pursuant to Government Code section 11343.4 (Register 2005, No. 1).

28. Amendment of subsection (b)(7)(A)4. filed 10-11-2005; operative 11-10-2005 (Register 2005, No. 41).

29. Amendment of subsections (a), (b)(1), (b)(3), (b)(8.1), (b)(8.1)(A) and (b)(9)(E) filed 12-18-2006; operative 1-1-2007. Submitted to OAL pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2006, No. 51).

30. Amendment of subsections (b)(8.1)-(b)(8.1)(A) and (b)(9)(E) filed 10-31-2008; operative 11-30-2008. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2008, No. 44).

31. Amendment of section heading and section filed 11-15-2010; operative 12-15-2010. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of*

Administrative Law, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2010, No. 47).

32. Amendment of section heading and subsections (a)-(b)(1), (b)(3)-(4), (b)(5)(C), (b)(8.1)-(b)(8.1)(A) and (b)(9)(E) and amendment of footnote 1 filed 1-8-2013; operative 2-7-2013.

Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2013, No. 2).

33. Amendment of subsections (b)(8.1)-(b)(8.1)(A), (b)(8.2)(E)3. and (b)(9)(E) filed 12-15-2014; operative 1-1-2015 pursuant to section 18312(e)(1)(A), title 2, California Code of Regulations.

Submitted to OAL for filing and printing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2014, No. 51).

34. Redesignation of portions of subsection (b)(8)(A) as new subsections (b)(8)(B)-(D), amendment of subsections (b)(8.1)-(b)(8.1)(A), redesignation of portions of subsection (b)(8.1)(A) as new subsections (b)(8.1)(B)-(C) and amendment of subsection (b)(9)(E) filed 12-1-2016; operative 12-31-2016 pursuant to Cal. Code Regs. tit. 2, section 18312(e). Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision,

April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2016, No. 49).



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
October 22, 2020

Agenda Item No. 2D
Consent Calendar

**Award of Public Works Contracts for Regional Fire Operations
and Training Center (RFOTC) Training Grounds Improvements**

Contact(s) for Further Information

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Summary

This agenda item seeks approval of the plans and specifications for electrical and structural improvements at the RFOTC training grounds and to award public works contracts to GA Technical Services, Inc. and PCN3, Inc., the lowest responsive and responsible bidders, responding to formal bids SK2455 and SK2462.

Prior Board/Committee Action

N/A

RECOMMENDED ACTION(S)

1. Approve the plans and specifications for the electrical and structural improvements at the RFOTC training grounds.
2. Approve and authorize the Purchasing Manager to award a public works contract to GA Technical Services, Inc. in the amount of \$410,489.60.
3. Approve and authorize the Purchasing Manager to award a public works contract to PCN3, Inc. in the amount of \$1,358,850.08.
4. Find that the project is CEQA exempt due to the scope being limited to minor modifications to existing facilities.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Funding for this contract is available in the existing FY2020/21 Fire Stations and Facilities Capital Improvement Budget.

Background

On January 23, 2020, the Executive Committee received a report recommending much needed renovations and upgrades to the current RFOTC training grounds and training tower, and authorized an agreement for related design, engineering, and construction management services.

Major components of the project scope include an additional training tower to increase training capacity and better represent current construction methods occurring throughout Orange County, props that simulate household living areas and businesses commonly found in strip malls that firefighters routinely encounter when battling structure fires, and new classroom/dorm facilities.

Invitation for Bids (IFB) SK2455 – Electrical Improvements at the RFOTC Drill Grounds

On August 20, 2020, IFB SK2455 was issued resulting in electronic notification to 573 vendors via the PlanetBids bidding portal. The project was also advertised in the Orange County Register. Twelve contractors attended the mandatory job-walk held on September 3, 2020. The bid included plans and specifications with all required modifications needed to upgrade electrical infrastructure at the training grounds at the RFOTC.

Bids were due on September 10, 2020, and six construction bids were received with GA Technical Services, Inc. submitting the lowest bid in the amount of \$410,489.60. Research was completed by OCFA staff to confirm responsiveness of the bid and qualifications of GA Technical by verifying the current California State License Board (CSLB) license statuses and registration with the Department of Industrial Relations (DIR). See Attachment 1 for specific details regarding the solicitation process.

Invitation for Bids (IFB) SK2462 – Fire Training Structure Improvements at the RFOTC

On September 2, 2020, IFB SK2462 was issued resulting in electronic notification to 576 vendors via the PlanetBids bidding portal. The project was also advertised in the Orange County Register. Twenty-two contractors attended the mandatory job-walk held on September 16, 2020. The bid included plans and specifications with all required modifications needed to upgrade the fire training structure at the RFOTC.

Bids were due on September 23, 2020, and five construction bids were received with PCN3, Inc. submitting the lowest bid in the amount of \$1,358,850.08. Research was completed by OCFA staff to confirm responsiveness of the bid and qualifications of PCN3, Inc. and a meeting was held to ensure the products offered will conform to the required specifications. Staff also verified the current California State License Board (CSLB) license statuses and registration with the Department of Industrial Relations (DIR) for the prime contractor and each subcontractor. See Attachment 1 for specific details regarding the solicitation process.

Recommendation

Based on the results of IFBs SK2455 and SK2462, staff is recommending contract awards to GA Technical Services, Inc. for \$410,489.60 and PCN3, Inc. for \$1,358,850.08, as the lowest responsible bidders based on base bids.

Attachment(s)

1. Details of Solicitation Process
2. Invitation for Bid SK2455
3. Invitation for Bid SK2462
4. Bid Submittal from GA Technical Services
5. Proposed Public Works Contract – GA Technical Services
6. Bid Submittal from PCN3, Inc. Technical Services
7. Proposed Public Works Contract – PCN3, Inc.

Invitation for Bids (IFB) SK2455 – Electrical Improvements at the RFOTC Drill Grounds

On August 20, 2020, IFB SK2455 was issued and 573 vendors were notified electronically via the PlanetBids notification. The project was also advertised in the Orange County Register (August 26, 2020 and September 2, 2020). 12 contractors attended the mandatory job-walk held on September 3, 2020. The bid included plans and specifications with all required modifications needed to upgrade electrical infrastructure at the training grounds at the RFOTC.

Bids were due on September 10, 2020 and six construction bids were received from the following contractors:

1. GA Technical Services, Inc.	\$410,489.60
2. Inter-Pacific Systems, Inc.	\$453,043.91
3. M. Brey Electric, Inc.	\$547,976.00
4. The Stone Collector	\$661,896.40
5. Baker Electric	\$784,422.76
6. California Building Evaluation & Construction, Inc.	\$791,243.00

Additional research was completed by OCFA staff and to confirm responsiveness of the bid and qualifications of the apparent low-bidder, GA Technical by verifying the current California State License Board (CSLB) license statuses and registration with the Department of Industrial Relations (DIR) as follows:

Contractor/Subcontractor Name	CSLB License Number, Classification, and Expiration	DIR Registration Number and Expiration
GA Technical Services, Inc.	86080, B, C-7, C-10; Exp: 12/31/2020	1000001050, Exp: 6/30/2021

GA Technical was also the contractor awarded the contract for a prior OCFA project upgrading the emergency power distribution at the RFOTC and will be performing all work with no subcontractors for this project. As a result of the additional research and OFA's prior experience with the contractor, qualifications of the apparent low bidder for this project were confirmed and its bid was accepted.

Invitation for Bids (IFB) SK2462 – Fire Training Structure Improvements at the RFOTC

On September 2, 2020, IFB SK2462 was issued and 576 vendors were notified electronically via the PlanetBids notification. The project was also advertised in the Orange County Register (September 7, 2020 and September 14, 2020). 22 contractors attended the mandatory job-walk held on September 16, 2020. The bid included plans and specifications with all required modifications needed to upgrade the fire training structure at the RFOTC.

Bids were due on September 23, 2020 and five construction bids were received from the following contractors:

1. PCN3, Inc.	\$1,358,850.08
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2. Thomco Construction, Inc.	\$1,362,774.00
3. CalTec Corp.	\$1,412,859.00
4. Reed Family Enterprises, Inc.	\$1,572,646.00
5. Horizons Construction	\$1,745,711.69

CalTec Corp's response was deemed non-responsive due to the submittal of an incomplete bid package.

Additional research was completed by OCFA staff and to confirm responsiveness of the bid and qualifications of the apparent low-bidder, PCN3, Inc. A discussion was conducted with the apparent low bidder and OCFA staff after bid opening to confirm specifications, the scope of work, and the required installation date provided in the bid submittal if the contract was approved by the OCFA Board of Directors October 22, 2020.

OCFA Staff also verified the current California State License Board (CSLB) license statuses and registration with the Department of Industrial Relations (DIR) for the prime contractor and each subcontractor as follows:

Contractor/Subcontractor Name	CSLB License Number, Classification, and Expiration	DIR Registration Number, Expiration
PCN3, Inc.	786518, A, B, C-10, C-51, Exp: 10/31/2022	1000007827, Exp: 6/30/2022
WHP Training Towers – Sub	865784, C-61/D64, Exp: 10/31/2021	1000031514, Exp: 6/30/2022
KFT Fire Trainer, LLC – Sub	912139, A, Exp: 7/31/2022	1000044756 Exp: 6/30/2021
Polygon Builders, Inc. – Sub	1014707, B, Exp: 5/31/2022	1000058009 Exp: 6/30/2021

As a result of the additional research and meeting, qualifications of the apparent low bidder and their subcontractors for this project were confirmed and its bid was accepted.



ORANGE COUNTY FIRE AUTHORITY FORMAL INVITATION FOR BIDS

ELECTRICAL IMPROVEMENTS AT THE OCFA REGIONAL FIRE OPERATIONS & TRAINING CENTER

ISSUED PURSUANT TO THE CALIFORNIA UNIFORM PUBLIC CONSTRUCTION
COST ACCOUNTING ACT (PCC22032) FOR PROJECTS EXCEEDING \$200,000

August 20, 2020

Solicitation No. SK2455

The Orange County Fire Authority is requesting bids to establish a construction agreement for electrical improvements to the drill grounds at the Regional Fire Operations Training Center (RFOTC), as specified herein. OCFA will contract with the respondent who submits a responsive and responsible bid and offers the best pricing and value.

THIS PROJECT IS CONSIDERED A PUBLIC WORK.

Pursuant to SB854, 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 **September 3, 2020**
- Contractors' License: A, B, and/or specialty, as required by CA state law
- 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 Thursday, September 10, 2020**
- **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 OCFA 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 **11:00 A.M. on Friday, September 4, 2020**. OCFA will publish a response to all inquiries through the e-procurement system and/or may issue an addendum as a result.

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

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SECTION 1: SOLICITATION INFORMATION

1.1 DEFINITIONS

Cal/OSHA: California Division of Occupational Safety and Health

CSLB: California Contractor's State License Board

DIR: California Department of Industrial Relations

IFB: Invitation for Bids

NETA: InterNational Electrical Testing Association

NFPA: National Fire Protection Association

OCFA: Orange County Fire Authority

PCC: California Public Contract Code

PLC: Programmable Logic Controller

RFOTC: Regional Fire Operations Training Ground

SMACNA: Sheet Metal and Air Conditioning Contractors National Association

UG: Underground

1.2 OBJECTIVE

The Orange County Fire Authority is requesting bids to establish a construction agreement for electrical improvements to the drill grounds at the OCFA Regional Fire Operations Training Center in Irvine, California, as specified herein.

1.3 MANDATORY SITE INSPECTION

A mandatory job walk for prime contractors will be held on **September 3, 2020 at 10:00 A.M. at the OCFA RFOTC Drill Grounds located at 1 Fire Authority Road, Irvine, CA.**

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 the OCFA 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 WILL BE REQUIRED TO UNDERGO A HEALTH SCREENING UPON ARRIVAL, MUST PROVIDE AND WEAR FACE MASKS, AND PRACTICE SOCIAL DISTANCING DURING THE JOB WALK.

1.4 CONTRACTOR MINIMUM QUALIFICATIONS

Contractor and all subcontractors must meet the following minimum qualifications in order to have its response considered:

1.4.1 Valid A, B, or specialty Contractor's License, as required by law, issued by the CSLB

1.4.2 Valid DIR registration

1.4.3 Business License with the City of Irvine

1.4.4 In addition to the experience requirements stated in Attachment Two, Contractor and all Subcontractors must possess a minimum of ten (10) years' experience providing the same or similar services **OR** equivalent experience on similar public works projects within the past five (5) years. Equivalence will be determined at the sole discretion of OCFA.

1.5 DUE DATE

Bids will be received no later than **11:00 AM on Thursday, September 10, 2020**. 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 OCFA Road, Irvine, CA 92602. If attending the bid opening, please allow time to check in at the Reception Desk.

DUE TO COVID-19 ATTENDEES WILL BE REQUIRED TO UNDERGO A HEALTH SCREENING UPON ARRIVAL, MUST PROVIDE AND WEAR FACE MASKS, AND PRACTICE SOCIAL DISTANCING DURING THE BID OPENING.

1.6 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 delineations, alterations, or erasures 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 OCFA 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.

DUE TO COVID-19 ATTENDEES WILL BE REQUIRED TO UNDERGO A HEALTH SCREENING UPON ARRIVAL, MUST PROVIDE AND WEAR FACE MASKS, AND PRACTICE SOCIAL DISTANCING WHEN SUBMITTING THE BID.

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 or electronic mail bids shall not be considered.

1.7 INQUIRIES

Any questions related to the IFB shall be directed to the Purchasing Manager, Sara Kennedy. Questions and comments must be submitted via this bid's Q&A module on the PlanetBids website no later than **11:00 A.M. on Friday, September 4, 2020**. The inquirer's name, company, address, phone number should be included. Oral 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.

1.8 SCHEDULE OF IMPORTANT DATES

Invitation for Bid Issue Date	August 20, 2020
Mandatory Job Walk	September 3, 2020 at 10:00 A.M.
Final Day to Submit Questions	September 4, 2020 at 11:00 A.M.
Deadline to Submit Bid Response	September 10, 2020 at 11:00 A.M.

SECTION 2: SCOPE OF SERVICES

2.1 PROJECT LOCATION

OCFA requires the improvement of the RFOTC drill grounds located at **1 Fire Authority Road, Irvine, CA, 92602**. The Drill Grounds were constructed in 2005 to accommodate training operations and simulate various conditions typically encountered during firefighting and rescue operations. Additional classrooms, training props and auxiliary equipment are now requiring permanent power, along with additional power to maintain vehicle communications and electrical equipment remain charged.

2.2 CONTRACTOR RESPONSIBILITIES

2.2.1 MATERIAL AND LABOR

Contractor shall provide all permits, material, labor, tools and supplies to complete the project as described herein. See Attachment Two for detailed information on these requirements and additional components that must be included in Contractor's bid and pricing.

2.2.2 CSLB LICENSE

Contractor and all 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.

2.2.3 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.

2.2.4 CITY OF IRVINE BUSINESS LICENSE REQUIREMENTS

Contractor and all subcontractors shall conform to the requirements of the City of Irvine and maintain an active business license pursuant to City of Irvine Municipal Code. The successful contractor and all subcontractors must remain in compliance with these requirements throughout the duration of the project.

2.3 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.

2.4 DELIVERABLES

2.4.1 PROJECT COMPONENTS

2.4.1.1 RE-FEED EXISTING MODULAR ROOMS

2.4.1.2 FEED NEW TWENTY-FOUR (24) TRUCK BATTERY CHARGERS

2.4.1.3 FEED NEW AND FUTURE TRAINING PROPS

Refer to Attachment Two of the IFB Document for detailed information about the project requirements including, but not limited to, the scope of services, drawings, specifications, submittals, required permits, inspections, etc.

2.4.2 SPECIFICATIONS

2.4.1.1 MINIMUM SPECIFICATIONS

The purpose of the information provided herein is to establish the minimum requirements for the supplies and materials 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.

2.4.1.2 EQUIVALENT ALTERNATE ITEMS

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 as equivalent alternatives to those items specified must include documentation to substantiate that the item is equal; failure to do so may result in the bid 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 non-responsive.

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 Construction Agreement (see Attachment One).

2.4.1.3 MATERIALS

Materials shall be pure, unadulterated, first quality and shall be delivered to the project in original unbroken packages bearing the makers name and brand number. Materials shall comply with all requirements described in Attachment Two. Materials shall be submitted for approval prior to use.

2.4.3 PROJECT EXECUTION**2.4.2.1 WORKMANSHIP**

OCFA will accept at a minimum the level of workmanship described below. 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.

2.4.2.2 CLEAN-UP

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.

2.4.2.3 PROTECTION

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

2.4.2.4 REPAIR

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

2.5 SCHEDULES, TIMELINES, AND MEETINGS**2.5.1 COORDINATION OF WORK**

Contractor shall coordinate the commencement of all work with OCFA so as not to cause inconvenience to the facility. The drill grounds will be in use during project work. 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.

2.5.2 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.

2.5.3 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 30 days

2.5.4 MEETINGS

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

2.4.2.1 PRE-AWARD MEETING

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

2.4.2.2 PRE-CONSTRUCTION JOB WALKS

These meetings with OCFA, the City of Irvine, and others as necessary and/or required by law will be coordinated by the Contractor

2.4.2.3 PROJECT STATUS MEETINGS

Weekly meetings held in person, unless otherwise determined

2.4.2.4 ACCEPTANCE

Meetings regarding project acceptance and warranty punch list items

2.4.2.5 ADDITIONAL

Other meetings deemed necessary for contract compliance

SECTION 3: GENERAL INSTRUCTIONS TO BIDDERS

3.1 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. 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 (OCFA’s bid management system).

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.

3.2 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.

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.

3.3 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>.

3.4 WITHDRAWAL OF BID

3.4.1 PRIOR TO BID DUE DATE AND TIME

At any time prior to the specified IFB due date and time, an Offeror may formally withdraw the bid by a written letter, facsimile or electronic mail from the Offeror or a designated representative. **Telephonic or oral withdrawals shall not be considered.**

3.4.2 AFTER BID DUE DATE AND TIME

In accordance with CA PCC §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 under the following conditions:

- A mistake is made in the bid
- 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.

- The mistake makes the bid materially different than Bidder intended it to be
- 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.

3.5 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.

3.6 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 reserves the right to reject any or all bids. 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 contains 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 Business and Professions Code.

3.7 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.**

3.8 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.

The OCFA may deem any bidder who fails to possess the required license to be non-responsive. Pursuant to Section 7028.5 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.

3.9 SB854 DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION

No contractor or subcontractor may be listed on an offer for a public works project unless registered with the CA Department of Industrial Relations pursuant to CA Labor Code Section 1725.5, with limited exceptions from this requirement for bid purposes only under CA 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 CA Department of Industrial Relations pursuant to CA Labor Code Section 1725.5. Pursuant to SB854, 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 CA 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.

3.10 PREVAILING WAGE

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

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

Failure to comply with the proper 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>.

3.11 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.

3.12 CONTRACT

A response to this IFB is an offer to contract with OCFA based upon the terms, conditions, and specifications contained within this document and the Construction Services Agreement, attached hereto as Attachment One. 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.

3.13 BID DOCUMENTS & FORMS

Bids 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.

3.14 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 erasure, interlineations or other modifications on the bid.
- Periods of time, stated as a 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 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, or make substitutions thereon.
- **Oral, telephonic, facsimile, and electronic bids or modifications will not be considered.**

3.15 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 any 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 shall not discriminate against any employee or applicant for employment in violation of Federal or State law;
- The Bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to a public servant in connection with the submitted offer;
- 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;
- 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.

3.16 ACCEPTANCE PERIOD

Unless otherwise specified herein, bids are firm for a period of 180 days.

3.17 BID OPENING

All the bids read aloud by the OCFA will be subject to further evaluation with respect to responsiveness of the bid and that the bidder is responsible.

3.18 DESIGNATION OF SUBCONTRACTORS

Pursuant to State law, the bidder must designate the name and location of each subcontractor who will perform work or render services for the prime in an amount that exceeds one-half of one percent (0.5%) of the contractor's total bid amount, as well as the portion of work each such subcontractor will perform at the time the bid is submitted.

Pursuant to Public Contract Code Section 4104, the OCFA has not implemented 3(A) which would bidders an additional twenty-four (24) hours after the deadline for submission of bids to submit the information about each subcontractor.

3.19 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.

3.20 COMPLIANCE WITH LAWS

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

3.21 CRITERIA FOR EVALUATION AND AWARD

The OCFA shall 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 and the inclusion of all required attachments and submissions. The OCFA must 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 "responsibility" 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. The OCFA reserves the right to inspect and review bidder's facilities, equipment and personnel and those of any identified subcontractors. 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.

3.22 GROUNDS FOR DISQUALIFICATION

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

- Contact regarding this procurement is made with any OCFA 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 additional terms, conditions, or agreements with the bid document;
- Offering of gifts or souvenirs, even of minimal value, to OCFA 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 resulting in the termination of such 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.

3.23 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 subsequent to the contract award.

3.24 INSURANCE

The successful bidder shall procure the insurance in the form and in the amount specified in the agreement. 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 insurance required under this section, 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 similar insurance required of the subcontractor has been obtained and approved.

3.25 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 K: Transmittal Page – Bid Award Documents to the Purchasing 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.

SECTION 4: BID AND CONTRACT REQUIREMENTS**4.1 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 A*)
- ☐ **Original Bidder’s Bond** (*Exhibit B*)
- ☐ **Certification of Bid** (*Exhibit C*)
- ☐ **Contractor’s Licensing Statement** (*Exhibit D*)
- ☐ **List of Subcontractors** (*Exhibit E*)
- ☐ **Certification of Site Examination** (*Exhibit F*)
- ☐ **Schedule of Values** (*Exhibit G*)
Available for download as a .XLS file on the “Documents” tab of the PlanetBids portal
- ☐ **Project Approach and Schedule** (*Exhibit H*)
- ☐ **List of Project References** (*Exhibit I*)
- ☐ **List of Current Projects** (*Exhibit J*)

4.2 CONTRACT SUBMITTALS (SUCCESSFUL BIDDER ONLY)

Within fourteen days (14) of the issuance of the Notice of Intent to Award, 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 K*)
- ☐ **Original Performance Bond** (*Exhibit L*)
- ☐ **Original Payment (Labor and Materials) Bond** (*Exhibit M*)
- ☐ **Award Certifications** (*Exhibit N*)
- ☐ **IRS Form W9** (*Exhibit O*)
- ☐ **Insurance Certificates**
- ☐ **Signed Agreement**

EXHIBIT A: TRANSMITTAL PAGE ONE – IFB RESPONSE FORMS**TO:** Orange County Fire Authority**FROM:** _____

(Legal Name of Contractor)

PROJECT: _____

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 G: Schedule of Values):

BID LUMP SUM:**NUMERICAL:** \$ _____**WRITTEN:** _____**ACKNOWLEDGMENT OF ADDENDA:**

No.: _____ Dated: _____ No.: _____ Dated: _____
No.: _____ Dated: _____ No.: _____ Dated: _____

BIDDER'S CHECKLIST:

Bidder certifies that the following documents are included in Bid:

- | | | |
|---|--|---|
| <input type="checkbox"/> Transmittal Page (<i>Exhibit A</i>) | <input type="checkbox"/> List of Subcontractors (<i>Exhibit E</i>) | <input type="checkbox"/> Project Approach and Schedule (<i>Exhibit H</i>) |
| <input type="checkbox"/> Bidder's Bond (<i>Exhibit B</i>) | <input type="checkbox"/> Certification of Site Examination (<i>Exhibit F</i>) | <input type="checkbox"/> List of Past Projects References (<i>Exhibit I</i>) |
| <input type="checkbox"/> Certification of Bid (<i>Exhibit C</i>) | <input type="checkbox"/> Schedule of Values (<i>Exhibit G</i>) | <input type="checkbox"/> List of Current Projects (<i>Exhibit J</i>) |
| <input type="checkbox"/> Contractor's Licensing Statement (<i>Exhibit D</i>) | | |

MINIMUM QUALIFICATIONS:

Bidder Meets the Minimum Qualifications as follows:

CSLB License #: _____ **Expiration:** _____**DIR Registration #:** _____ **Expiration:** _____**Number of Years of Experience:** _____**SIGNATURE OF CONTRACTOR:** _____**PRINTED NAME:** _____ **TITLE:** _____

EXHIBIT B: 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, _____ as Principal ("Principal"), and _____ as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of _____ 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 _____ Dollars (\$_____) 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 (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 ____ day of _____, 20____. 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)

Principal_____
By_____
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Surety_____
By_____
Name of California Agent of Surety_____
Address of California Agent of Surety_____
Telephone Number of California Agent of Surety

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

EXHIBIT C: CERTIFICATION OF BID

In responding to IFB SK2455 RFOTC Drill Grounds Electrical Improvements, 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 Construction Services Agreement (Attachment One), 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 Attachment One.
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.
11. Bidder shall declare that the only persons or parties interested in the proposal as principals are those named therein; that no officer, agent, or employee of the OCFA is personally interested, directly or indirectly, in the proposal; that the proposal is made without connection to any other individual, firm, or corporation making a bid for the same work; and that the proposal is in all respects fair and without collusion or fraud.

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: _____

SIGNATURE OF CONTRACTOR: _____

PRINTED NAME: _____ **TITLE:** _____

CONTRACTOR ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP CODE:** _____

IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:

NAME OF CORPORATION: _____

DATE OF INCORPORATION: _____

PRESIDENT: _____ **TREASURER:** _____

SECRETARY: _____ **MANAGER:** _____

EXHIBIT D: 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:** _____ **CLASS:** _____ **EXPIRATION:** _____**CA DIR REGISTRATION NUMBER:** _____ **EXPIRATION:** _____**CONTRACTOR TELEPHONE:** _____ **CONTRACTOR FAX:** _____**BUSINESS****ADDRESS:** _____**LENGTH OF TIME IN BUSINESS:** _____**LENGTH OF TIME AT CURRENT LOCATION:** _____**NUMBER OF EMPLOYEES:****NUMBER OF CURRENT CLIENTS:**

*If the contractor operates as a sole proprietorship:***NAME OF INDIVIDUAL CONTRACTOR:** _____**SIGNATURE OF OWNER:** _____**BUSINESS ADDRESS:** _____

*If the contractor operates under a partnership:***NAME OF FIRM:** _____**PARTNER NAME:** _____ **PARTNER TITLE:** _____**PARTNER ADDRESS:** _____**SIGNATURE OF PARTNER:** _____**PARTNER NAME:** _____ **PARTNER TITLE:** _____**PARTNER ADDRESS:** _____

SIGNATURE OF PARTNER: _____

If contractor operates under a corporation:

NAME OF CORPORATION: _____

CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF CALIFORNIA:

SIGNATURE OF CORPORATION PRESIDENT

SIGNATURE OF THE CORPORATION SECRETARY

DATE

Management person responsible for direct contact with OCFA:

NAME: _____ **TITLE:** _____

TELEPHONE: _____ **E-MAIL:** _____

Person responsible for the day-to-day servicing of the account/project.

NAME: _____ **TITLE:** _____

TELEPHONE: _____ **E-MAIL:** _____

EXHIBIT E: 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.**

Subcontractor Name: _____	Location: _____
Portion of Work: _____	Trade: _____
Bid Amount: _____	
Contractor's License Number: _____	DIR Number: _____
Subcontractor Name: _____	Location: _____
Portion of Work: _____	Trade: _____
Bid Amount: _____	
Contractor's License Number: _____	DIR Number: _____
Subcontractor Name: _____	Location: _____
Portion of Work: _____	Trade: _____
Bid Amount: _____	
Contractor's License Number: _____	DIR Number: _____

EXHIBIT F: CERTIFICATION OF SITE EXAMINATION

Signature below certifies 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: _____

Company Name: _____

Signature: _____

Printed Name / Title of Company Representative: _____

Date: _____

EXHIBIT G: SCHEDULE OF VALUES

Bidder must download and complete Exhibit G: Schedule of Values, and submit with Bid documents. Exhibit G: Schedule of Values is attached separately and is available for download as a Microsoft Excel file via the “Documents” tab of the PlanetBids website. **Failure to complete and submit the Schedule of Values will result in the bid being deemed non-responsive.**

EXHIBIT H: PROJECT APPROACH AND TIMELINE

Provide responses to the questions below; the information may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Provide a brief statement with general description of the proposed project approach and identify whether the materials bid are as-specified or will include proposed alternate equivalents.

2. Provide the project phases along with the number of working days required to complete each phase in the table below. Attach additional sheets if necessary.

No.	Project Phase Description	Number of Working Days to Complete
Total Working Days to Complete Project:		

EXHIBIT I: LIST OF PROJECT REFERENCES

The Bidder must demonstrate knowledge of public construction techniques and the performance of similar work for other public agencies. The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.** Attach additional sheets as necessary.

1. Submit documentation demonstrating how Bidder and subcontractors meet the minimum qualifications outlined in §1.4.1, §1.4.2, and §1.4.3.
2. Contractor and all Subcontractors must possess a minimum of ten (10) years' experience providing the same or similar services OR equivalent experience on similar public works projects within the past five (5) years. Describe how Contractor and all Subcontractors meet this requirement (§1.4.4 of this IFB Document).
2. Provide evidence of previous successful use of Irvine.gov.
3. Describe previous experience with underground conduit trenching with T cap support over ducts.
4. Provide details on previous bridge rated manhole experience.
5. Describe recent experience with Fire Rated Prop electrical work.
6. 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, as stated in Attachment Two, in a timely or satisfactory manner. Provide information for three public agencies for which the Bidder has performed similar work within the past five (5) years.

Agency Name: _____	City/State: _____
Contact: _____	Title: _____
Email: _____	Phone: _____
Project Name: _____	Value: _____
Scope of Work: _____	

Agency Name: _____	City/State: _____
Contact: _____	Title: _____
Email: _____	Phone: _____
Project Name: _____	Value: _____
Scope of Work: _____	

Agency Name: _____	City/State: _____
Contact: _____	Title: _____
Email: _____	Phone: _____
Project Name: _____	Value: _____
Scope of Work: _____	

EXHIBIT J: LIST OF CURRENT PROJECTS

The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

Project Name	Description of Bidder's Work	Completion Date	Project Cost

EXHIBIT K: TRANSMITTAL PAGE TWO – BID AWARD DOCUMENTS**TO:** Orange County Fire Authority**FROM:** _____

(Legal Name of Contractor)

PROJECT: Electrical Improvements at the RFOTC Drill Grounds**AWARDED CONTRACTOR'S CHECKLIST:**

The awarded Contractor is required to provide the following documents:

- ☐ **Transmittal Page** (*Exhibit K*) ☐ **Award Certifications** (*Exhibit N*) ☐ **Signed Agreement**
- ☐ **Performance Bond** (*Exhibit L*) ☐ **W9** (*Exhibit O*)
- ☐ **Payment Bond** (*Exhibit M*) ☐ **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:** _____**TITLE:** _____

EXHIBIT L: 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 _____ ("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 SK2455 – RFOTC DRILL GROUNDS
ELECTRICAL IMPROVEMENTS**

("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 _____ ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of [WRITE OUT AMOUNT] DOLLARS (\$[AMOUNT]), 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 ____ day of _____, 20____. 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)

Principal_____
By_____
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Surety_____
By_____
Name of California Agent of Surety_____
Address of California Agent of Surety_____
Telephone Number of California Agent of Surety

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

EXHIBIT M: 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 _____, ("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 SK2455 – RFOTC DRILL GROUNDS
ELECTRICAL IMPROVEMENTS**

("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, _____ ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of [WRITE OUT AMOUNT] DOLLARS (\$[AMOUNT]), 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 ____ day of _____, 20__.

CONTRACTOR:

(Affix Corporate Seal)

Principal_____
By_____
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Surety_____
By_____
Name of California Agent of Surety_____
Address of California Agent of Surety_____
Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

EXHIBIT N: 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: _____

Legal Name of Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

EXHIBIT O: IRS FORM W9

Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

**Request for Taxpayer
Identification Number and Certification**

**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.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only **one** of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC
☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ 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) _____
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Requester's name and address (optional)

Print or type
See Specific Instructions on page 2.

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 Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number

				-						
--	--	--	--	---	--	--	--	--	--	--

or

Employer identification number

				-						
--	--	--	--	---	--	--	--	--	--	--

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 on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

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? on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

ATTACHMENT ONE: SAMPLE CONSTRUCTION AGREEMENT

Following is a sample Construction Services Agreement. Concurrent with the issuance of the Notice of Intent to Award, OCFA will provide the successful Contractor with the final Agreement containing all project specific information for signature. Contractor must return two original agreements with wet ink signature to OCFA within the timeframe specified herein.

ORANGE COUNTY FIRE AUTHORITY CONSTRUCTION SERVICES AGREEMENT FOR _____

THIS AGREEMENT FOR _____ ("Agreement") is made and entered into this ____ day of _____, 20____, ("Effective Date") by and between Orange County Fire Authority, a California Joint Powers Authority ("OCFA"), and _____, ("Contractor"). OCFA and Contractor are sometimes hereinafter individually referred to as "Party" and collectively as the "Parties".

RECITALS

WHEREAS, OCFA requires _____ as requested in IFB _____, hereinafter referred to as "Project"; and

WHEREAS, Contractor has submitted to OCFA a bid dated _____, incorporated herein by this reference ("Bid"); and

WHEREAS, OCFA and Contractor desire to enter into this Agreement in order to receive and provide, respectively, _____ on the same terms, conditions, and pricing as further set forth in Section 1.1 of this Agreement;

AGREEMENT

NOW THEREFORE, OCFA and Contractor mutually agree as follows:

SECTION ONE

1. SCOPE OF AGREEMENT. In compliance with all terms and conditions of this Agreement, OCFA shall procure _____ from Contractor as more fully detailed in Exhibit "A", attached hereto, which includes by reference and by addendum: (1) OCFA's IFB _____, dated _____ ("Solicitation"), (2) Contractor's Bid, dated _____, and (3) any amendments, addendums, change orders, or modifications mutually agreed upon by the Parties hereto ("Services", "Goods" or "Work"). In the event of any inconsistency between the terms contained in Exhibit "A", 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 Exhibit "A" shall govern, in that order.

2. GENERAL CONDITIONS. Contractor certifies and agrees that all the terms, conditions, and obligations of this Agreement, including the location of the Project site, and the conditions under which the work is to be performed, have been thoroughly reviewed. Contractor enters into this Agreement based upon Contractor's investigation of all such matters and is in no way relying upon any opinions or representations of OCFA. It is agreed that this Agreement and the attached exhibits represent the entire agreement. It is further agreed that the Contractor and its

subcontractors, if any, will be and are bound by this Agreement relating in any part or in any way, directly or indirectly, to the work covered by this Agreement. Contractor further certifies and agrees that the work described herein 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.

3. MATERIALS AND LABOR. Contractor shall furnish, under the conditions expressed herein, at Contractor's own expense, all labor and materials necessary, except such as are mentioned in Exhibit "A" to be furnished by the OCFA, to construct and complete the Project, in good workmanlike and substantial order. 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 them directly and deduct the amount of payments from this Agreement price and any amounts due to Contractor. In the event OCFA receives a stop notice from any laborer or material supplier alleging nonpayment 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.

4. CONTRACT PRICE AND METHOD OF PAYMENT

4.1 CONTRACT PRICE. OCFA agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Agreement, subject to any subsequent additions or deductions as provided in approved change orders, the sum of _____ (\$_____) as shown on Exhibit "A".

4.2 METHOD OF PAYMENT. Within thirty (30) days from the commencement of work, there shall be paid to the Contractor a sum equal to ninety-five percent (95%) of the value of the actual work completed plus a like percentage of the value of material suitably stored at the worksite or approved storage yards subject to or under the control of the OCFA, since the commencement of the work as determined by the OCFA.

Thereafter, on a schedule issued by the OCFA at the commencement of the job which shows a minimum of one payment made to the Contractor per month for each successive month as the work progresses and the request for payment due dates from the Contractor to meet the payment schedule, 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 since the commencement of work as determined by the OCFA, 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.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the OCFA's Project Manager, stating that the work for which payment is demanded has been performed in accordance with the terms of this Agreement, and that the amount stated in the certificate is due under the terms of this Agreement. Partial payments on this Agreement price shall not be considered as an acceptance of any part of the work.

4.3 RETENTION. The OCFA will retain five percent (5%) of the amount of each such progress estimate and material cost until the Final Payment.

5. CONTRACTOR'S REPRESENTATIVE. The following principal of Contractor is hereby designated as being the principal and representative of Contractor authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: _[Name], [Title]_. The foregoing principal shall be responsible during the term of this Agreement for directing all activities of Contractor and devoting sufficient time to personally supervise the work hereunder. The foregoing principal may not be changed by Contractor without the express written approval of OCFA

6. OCFA PROJECT MANAGER. The Project Manager shall be _[Name], [Title]_, unless otherwise designated in writing by OCFA. It shall be Contractor's responsibility to keep the Project Manager fully informed of the progress of the provision of the Goods or Services and Contractor shall refer any decisions that must be made by OCFA to the Project Manager. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Project Manager.

7. NOTICES. 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, Purchasing
Manager
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]
Attention: _____
[Address]

SECTION TWO

8. COMPLIANCE WITH LABOR CODE AND PUBLIC CONTRACT CODE. OCFA is subject to the provisions of law relating to prevailing wages, labor law generally, and public contracts in the State of California. It is agreed that all provisions of law applicable to public contracts are a part of this Agreement to the same extent as though set forth herein, and will be complied with by the Contractor.

No contractor or subcontractor may be awarded or perform a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall not pay less than the prevailing wage. It shall be the responsibility of the Contractor to obtain the prevailing wage rates from the Director of Industrial Relations directly.

9. PREVAILING WAGE. This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the higher of the two prevailing wage rates, federal or state, will be enforced. The work is subject to the payment of not less than prevailing wages under Labor Code Section 1770 et seq. Contractor agrees to comply with all related provisions of the Labor Code, including but not limited to, the provisions of Labor Code Section 1775 relating to payment of prevailing wages, Section 1777.5 relating to employment of apprentices and Section 1811-1813 relating to the payment of overtime. Failure to comply with the proper prevailing wage requirements may result in penalty of up to \$200 per day per worker. Failure to comply with apprenticeship requirements may result in penalty of \$100-\$300 for each calendar day of violation. Failure to pay proper overtime rate may result in a penalty of \$25 per day per worker. Bidders 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 this Agreement which will be awarded to the successful bidder. This information is available at the Department of Industrial Relations website: <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Bidders are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Further information on Compliance Monitoring Unit requirements can be found at: <https://www.dir.ca.gov/Public-Works/PublicWorksEnforcement.html>.

In accordance with Section 1773.2 of the CA Labor Code, the Contractor shall post a copy of the determination of prevailing rate of wages at each job site. Travel and subsistence payments to each workman needed to execute the work shall be made as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the CA Labor Code.

10. RELEASE OF LIENS AND PAYMENT SCHEDULE. Prior to each progress payment Contractor shall submit a "Conditional Release of Lien upon Progress Payment" with the first, and thereafter each, progress payment application in the amount of the application for payment specifying the period of time for which the Conditional Release applies.

For each payment period, if payment has been received by Contractor for the previous application, Contractor shall submit an "Unconditional Waiver and Release Upon Progress Payment" for the labor and materials associated with the progress billing satisfied with the prior payment. The subsequent progress billing is then submitted with a new "Conditional Release of Lien" in the amount of the application for the next specified period of time.

When all project labor and materials have been paid in full, Contractor shall submit an "Unconditional Waiver and Release Upon Final Payment".

Final Payment shall not become due until Contractor submits to OCFA's Project Manager: (1) an Unconditional and Final Release of Liens containing an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work and materials for which OCFA or OCFA's property might in any way be responsible, have been paid or otherwise satisfied, and signed by all subcontractors and suppliers; (2) the consent of the surety to Final Payment; and (3) if reasonably required by the OCFA's Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of this Agreement, to the extent and in such form as may be designated by the OCFA's Project Manager. OCFA's Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.

If any Subcontractor or material supplier refuses to sign the Final Release of Liens or to furnish a release or waiver required by OCFA's 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 OCFA's Project Manager to indemnify OCFA against any lien and against the costs and reasonable attorney fees in discharging such lien. If any lien remains unsatisfied after all payments are made, Contractor shall refund to OCFA all monies that the OCFA pays in discharging such lien, including all costs and reasonable attorneys' fees, or OCFA in its sole discretion may proceed to make a demand against the surety for all such costs and attorney fees. In the event OCFA makes demand for payment against the surety, Contractor shall be responsible to reimburse OCFA upon demand for any costs and reasonable attorney fees not paid by the surety.

11. TIME OF COMMENCEMENT AND COMPLETION. Contractor agrees to commence the Project within number of days specified in Exhibit "A" and shall diligently prosecute the work to completion as provided for herein, excluding delays caused or authorized by the OCFA as set forth in this Agreement.

Time is of the essence of this Agreement. Contractor shall prepare and obtain approval of all shop drawings, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with construction schedule approved by the OCFA Project Manager. Contractor shall coordinate the work covered by this Agreement with that of all other Contractors, subcontractors of the OCFA, if any, in a manner that will facilitate the efficient completion of the entire work in accordance with this Agreement. OCFA shall have the right to assert complete control of the premises on which the work is to be performed and shall have the right to decide the time or order in which the various portions of the work shall be installed or the priority of the work of other subcontractors, and, in general, all matters representing the timely and orderly conduct of the work of Contractor on the premises.

12. LIQUIDATED DAMAGES FOR DELAY. The Parties agree that if the total work called for under this Agreement, in all parts and requirements, is not completed within the time approved by OCFA, plus any allowance made for delays or extensions authorized by OCFA, the OCFA will sustain damage which would be extremely difficult and impracticable to ascertain. The parties therefore agree that Contractor will pay to OCFA the sum of Five Hundred Dollars (\$500.00) per day, as liquidated damages, and not as a penalty, for each and every calendar day during which completion of the Project is so delayed. Contractor agrees to pay such liquidated damages and further agrees that OCFA may offset the amount of liquidated damages from any monies due or that may become due Contractor under this Agreement.

13. COMPLETION. Within 10 days after this Agreement completion date of the Project, Contractor shall file with the Project Manager its affidavit stating that all workers and persons employed, all firms supplying materials, and all subcontractors upon the Project have been paid in full, and that there are no claims outstanding against the Project for either labor or material, except those certain items, if any, to be set forth in an affidavit covering disputed claims, or items in connection with Stop Notices which have been filed under the provisions of the statutes of the State of California. The Project Manager may require affidavits or certificates of payment and/or releases from any subcontractor, laborer or material supplier.

Upon receipt of Contractor's affidavit, the Project Manager shall prepare appropriate documentation setting forth the particular details of the completed Project, including but not limited to, description and amount of all change orders, the final amounts of this Agreement, as amended, the time and dates of the total agreement and the identification of any unresolved claims or disputes. If necessary, Project Manager shall submit the Project and the agreements to the OCFA Board of Directors for acceptance of the job as complete.

14. SURETY BONDS

14.1 FAITHFUL PERFORMANCE BOND. Contractor shall furnish a Payment (Labor and Materials) Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.2 PAYMENT BOND. Contractor shall furnish a Faithful Performance Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.3 GENERAL REQUIREMENTS To the extent required under Civil Code section 9550, the Contractor shall furnish and maintain throughout completion of the Project the aforementioned bonds. The bonds must be issued by a surety authorized by the State Insurance Commissioner to do business in California.

14.4 UNACCEPTABLE SURETY. If any surety upon any bond furnished in connection with the Agreement becomes unacceptable to the OCFA, or if any such surety fails to furnish reports as to its financial condition from time to time as requested by the Project Manager, the Contractor shall promptly furnish such additional security as may be required by the Project Manager or the OCFA Board of Directors from time to time to protect the interests of the OCFA and of persons supplying labor materials in the prosecution of the work contemplated by this Agreement.

14.5 SUBSTITUTION OF SECURITY. Pursuant to Public Contract Code Section 22300, the Contractor shall be permitted to substitute securities for any monies withheld by the OCFA to ensure performance under this Agreement at the request and expense of the Contractor if he/she chooses to do so.

15. INSURANCE.

15.1 REQUIREMENTS. Contractor shall at all times carry, on all operations hereunder, bodily injury, personal injury, including death and property damage liability insurance, including automotive operations, bodily injury and property damage coverage; and builders' all risk insurance. All insurance coverage shall be in amounts specified below and shall be evidenced by the issuance of a certificate in a form prescribed by the OCFA and shall be underwritten by insurance companies satisfactory to OCFA for all operations, subcontract work, contractual obligations, product or completed operations, all owned, hired, and non-owned vehicles. Said insurance coverage obtained by the Contractor, excepting workers' compensation coverage, shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the OCFA to add the following provisions to the insurance policies: (1) the policy or policies shall name the OCFA, 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, Officers, Agents, and Employees, as determined by the OCFA, as additional insured on said policies; and (2) each policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its Directors, Officers, Officials, Agents, Employees, Project Manager, Volunteers or Consultants, shall not contribute with the primary insurance.

Workers' Compensation	Minimum of \$1,000,000 - In Accordance with the Workers' Compensation Act of the State of California.
General Liability, including operations, products and completed operations	<p>\$5,000,000, per occurrence for bodily injury, personal injury and property damage/\$5,000,000 aggregate.</p> <p>If commercial general liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the required occurrence limit.</p> <p>For those businesses that are self-insured, a written declaration by the principal of the business should be provided.</p>
Automobile Liability, including owned, hired, and non-owned vehicles	\$1,000,000 combined single limit per occurrence; \$1,000,000 uninsured motorist.
Builder's Risk	All Risk Basis; Completed value of the project without co-insurance penalty provided.

Contractor shall maintain all of the foregoing insurance coverage in force until the work under this Agreement is fully completed and accepted by OCFA. The requirement for

carrying the foregoing insurance shall not derogate from the provisions for indemnification of OCFA by Contractor under this Agreement. 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 Agreement, the following insurance in amounts not less than the amounts specified and issued by a company admitted in California and having an A.M. Best's Guide Rating of "A-" Class VII or better: However, OCFA 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".

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.

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.

15.2 EVIDENCE OF COVERAGE. 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 coverage 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 OCFA.

OCFA 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.

15.3 SUBCONTRACTORS. 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 OCFA 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 to name the OCFA, its officials, officers, employees, agents and volunteers, as additional insureds. Contractor shall not allow any subcontractor to commence any work relating to this Agreement unless and until it has provided evidence satisfactory to OCFA that the subcontractor has secured all insurance required under this section. Payment under this Agreement for services performed by subcontractors may be withheld by OCFA until evidence satisfactory to OCFA is provided that the subcontractor has secured all the required insurance is provided to OCFA.

16. RISK AND INDEMNIFICATION. All work covered by this Agreement done at the site of construction or in preparing or delivering materials to the site shall be at the risk of Contractor alone. Contractor agrees to save, indemnify and keep OCFA, its Directors, Officers, Agents, Employees, Project Manager, and Consultants for this Agreement, and all public agencies from whom permits will be obtained and their Directors, Officers, Agents and Employees harmless against any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (Contractor's employees included) and damage to property, arising directly or indirectly out of the obligations herein undertaken or out of the operations conducted by Contractor, except that the indemnity obligation of Contractor shall be reduced by an amount proportional to the active negligence of the OCFA, if any, and will make good to and reimburse OCFA for any expenditures, including reasonable attorneys' fees OCFA may incur by reason of such matters, and if requested by OCFA, will defend any such suits at the sole cost and expense of Contractor.

In the event Contractor or its insurer refuses or fails to provide a legal defense to OCFA after receiving written notice of the legal action and a tender and demand for defense, OCFA shall have the right to select counsel of its own choice to represent all the interests of the OCFA. Contractor agrees that the amount of legal costs and expenses, including attorneys' fees, may be withheld by OCFA from any Contract amounts due and owing to Contractor until such time as a final determination is made as to the responsibility for payment of said fees and costs.

SECTION THREE

17. INDEPENDENT CONTRACTOR. Neither OCFA nor any of its employees shall have any control over the manner, mode or means by which Contractor, its agents or employees, perform the services required herein, except as otherwise set forth herein. Contractor shall perform all services required herein as an independent contractor of OCFA and shall remain at all times as to OCFA a wholly independent contractor with only such obligations as are consistent with that role. Contractor shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of OCFA.

18. ASSIGNMENT. Contractor shall neither delegate its duties or obligations, nor assign its rights with respect to this Agreement, 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.

19. COMPUTATION OF TIME. When any period of time is referred to in this Agreement 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.

20. INTEREST. Any monies not paid when due to either party under this Agreement shall bear interest at the rate of ten (10%) percent per annum, commencing on the forty-sixth (46th) day after demand for payment thereof after such monies are lawfully due and payable, except as otherwise provided in this Agreement.

21. 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 this Agreement as now or hereafter existing or at law, equity, or by statute.

22. NON-WAIVER. The failure of the OCFA to notify the Contractor of any default under this Agreement 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 Agreement, 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 this Agreement, or to exercise any option in this Agreement 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.

23. SEVERABILITY. In case any one or more provisions set forth in this Agreement 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 this Agreement, and this Agreement 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 Agreement.

24. NO THIRD PARTY BENEFICIARIES. This Agreement is 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 Agreement except as may be expressly provided in this Agreement to the contrary.

25. 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 this Agreement, and none of the provisions of this Agreement 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 Agreement by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.

26. COUNTERPARTS. This Agreement 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.

27. GOVERNING LAW. This Agreement shall be governed by the laws of the State of California.

28. SERVICES PRIOR TO EXECUTION. Notwithstanding the fact that this Agreement is executed as of the date first set forth above, the Parties recognize that a portion of the Work required under this Agreement may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of this Agreement and shall be deemed to be a part of the Work. Without limiting the foregoing, all of Contractor's liabilities and obligations to OCFA 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.

29. SURVIVAL OF RIGHTS. Any indemnity, warranty, guarantee given by the Contractor to the OCFA under this Agreement shall survive the expiration or termination of this Agreement and shall be binding upon Contractor until any action under this Agreement is barred by the applicable statute of limitations.

30. NON-DISCRIMINATION. 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 Agreement. Contractor shall take steps to ensure that applicants for any job and 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.

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.

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 Agreement 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.

IN WITNESS WHEREOF, the Parties hereto have executed this Construction Agreement as of the date first hereinabove written.

"OCFA"

ORANGE COUNTY FIRE AUTHORITY

Date:_____

By:_____

Sara Kennedy, CPPB
Purchasing Manager

"CONTRACTOR "

NAME

Date:_____

By:_____
Name, Title

Date:_____

By:_____
Name, Title

ATTACHMENT TWO: DRAWINGS AND SPECIFICATIONS

Following below are applicable drawings and specifications:

Please contact the
OCFA Clerk of the Authority Office
during regular business hours
at 714 573-6040
to obtain copies of the Plans
referenced in this attachment.

STANDARD SPECIFICATION
SECTION 02743 ASPHALT CONCRETE PAVING

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials, testing, and installation of aggregate base course, prime coat, tack coat, asphalt concrete pavement, seal coat, striping and markers.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Record Drawings and Submittals: STD SPEC 01300.
- B. Trenching, Backfilling, and Compacting: STD SPEC 02223.

1.03 DEFINITIONS

Whenever the term "Public Works Specifications" is used in this Section, the meaning shall be interpreted as Standard Specifications for Public Works Construction by APWA/AGC the "GREENBOOK" latest edition with Regional Supplement Amendments.

1.04 SUBMITTALS

- A. Submit submittal packages in accordance with Standard Specification Section 01300.
- B. Submit report from a testing laboratory verifying that aggregate material is asbestos-free and conforms to the specified gradations or characteristics.

1.05 TESTING FOR COMPACTION

- A. The District or the agency having jurisdiction over the area of the work will require the Contractor to test for compaction as described below.
- B. Determine the density of soil in place by the sand cone method, ASTM D 1556, or by nuclear methods, ASTM D 2922 and D 3017.
- C. Determine laboratory moisture-density relations of soils by ASTM D 1557.
- D. Determine the relative density of cohesionless soils by ASTM D 4253 and D 4254.
- E. Sample backfill materials by ASTM D 75.
- F. "Relative compaction" is the ratio, expressed as a percentage, of the inplace dry density to the laboratory maximum dry density.
- G. Compaction shall be deemed to comply with the Specifications when no more than one test of any three consecutive tests falls below the specified relative compaction. The one test shall be no more than three percentage points below the specified compaction. The Contractor shall pay the costs of any retesting of work not conforming to the Specifications.

PART 2 - MATERIALS

2.01 ASPHALT CONCRETE PAVING

Asphalt concrete paving shall conform to III-C2-AR-4000 as listed in Section 400-4 of the Public Works Specifications "GREENBOOK."

2.02 ASPHALT

Asphalt shall be viscosity grade AR 4000 or AR 8000. Asphalt content in the pavement shall be 5.5% to 6.0%.

2.03 AGGREGATE FOR ASPHALT CONCRETE

Aggregate shall be in accordance with Sections 400-1.1 and 400-1.2 of the Public Works Specifications "GREENBOOK." Aggregate shall be asbestos-free.

2.04 AGGREGATE BASE COURSE

Aggregate base shall be crushed aggregate base as specified in Section 400-2 of the Public Works Specifications "GREENBOOK." Aggregate shall be asbestos-free.

2.05 PRIME COAT

All areas to be paved shall receive prime coat. Prime coat shall be slow curing (SC-70) in accordance with Section 203-2 of the Public Works Specifications "GREENBOOK."

2.06 TACK COAT

Tack coat shall be slow setting (SS-1h) in accordance with Section 203-3 of the Public Works Specifications "GREENBOOK."

2.07 SEAL COAT

Seal coat shall conform with Section 302-5.10 in the Regional Supplement Amendments of the Public Works Specifications "GREENBOOK."

2.08 PAINT FOR TRAFFIC STRIPING AND MARKINGS

Provide rapid dry or fast dry paint per Section 210-1.6 of the Public Works Specifications "GREENBOOK." Provide a color to match the existing traffic striping and markings.

2.09 REFLECTIVE PAVEMENT MARKERS

Markers shall be of the reflective type and colored to match the existing pavement markers. Markers shall conform to Section 85 of the State Standard Specifications, State of California, Department of Transportation, Caltrans, latest editions.

PART 3 - EXECUTION

3.01 PERMIT REQUIREMENTS

Comply with the ordinances, directives, and regulations of the respective agencies having jurisdiction over the area of the work. Pavement removal and replacement shall be in accordance with these Specifications and the issued permit.

3.02 PAVEMENT REMOVAL

- A. Initially cut asphalt concrete pavement with a pavement saw, hydrohammer, or pneumatic pavement cutter at the limits of the excavation and remove the pavement regardless of the thickness. After backfilling the excavation, saw cut asphalt concrete pavement to a minimum depth of 2 inches at a point not less than 9 inches outside the limits of the excavation or the previous pavement cut, whichever is greater, and remove the additional pavement.
- B. Saw cut concrete pavement, including cross gutters, curbs and gutters, sidewalks, and driveways, to a minimum depth of 1-1/2 inches at a point 1-foot beyond the edge of the excavation and remove the pavement. The concrete pavement may initially be cut at the limits of the excavation by other methods prior to removal and then saw cut after backfilling the excavation. If the saw cut falls within 3 feet of a concrete joint or pavement edge, remove the concrete to the joint or edge.
- C. Make arrangements for and dispose of the removed pavement.
- D. Final pavement saw cuts shall be straight along both sides of trenches, parallel to the pipeline alignment, and provide clean, solid, vertical faces free from loose material. Saw cut and remove damaged or disturbed adjoining pavement. Saw cuts shall be parallel to the pipeline alignment or the roadway centerline or perpendicular to same.

3.03 PAVEMENT REPLACEMENT

Backfill, compaction, and the permanent paving, except for the final asphalt surface course, shall be complete at all times to a point not to exceed 420 feet behind pipelaying. The final asphalt surface course shall be 1-inch thick. Do not place final surface course until all pipelines and appurtenances have been installed within the roadway or as directed by the District's Representative to maintain traffic safety. After the base course of asphalt concrete pavement has been completed, place temporary striping in the same configuration as the existing permanent striping so that traffic can be returned to normal patterns. This striping shall be considered temporary and is the Contractor's responsibility to place and maintain.

3.04 INSTALLATION

Producing, hauling, placing, compacting, and finishing of asphalt concrete shall conform to Section 302-5 of the Public Works Specifications "GREENBOOK." Apply seal coat to all paving.

3.05 PREPARATION OF SUBGRADE

Compact the top 6 inches of subgrade to 95% relative compaction. Remove all soft material disclosed by the compacting and replace with suitable material and recompact. The finished subgrade shall be within a tolerance of ± 0.08 of a foot and shall be smooth and free from irregularities and at the specified relative compaction. The subgrade shall be considered to extend over the full width of the base course.

3.06 PLACING AGGREGATE BASE COURSE

Place aggregate base course to a thickness of 6 inches or to the standards of the agency having jurisdiction over the area of the work. Compact to 95% relative compaction. Install in accordance with Section 301-2 of the Public Works Specifications "GREENBOOK."

3.07 COMPACTION OF AGGREGATE BASE AND LEVELING COURSES

Compaction and rolling shall begin at the outer edges of the surfacing and continue toward the center. Apply water uniformly throughout the material to provide moisture for obtaining the specified compaction. Compact each layer to the specified relative compaction before placing the next layer.

3.08 PLACING PRIME COAT

Apply prime coat to the surface of the leveling course of aggregate base at the rate of 0.25 gallon per square yard per Section 302-5.2 of the Public Works Specifications "GREENBOOK."

3.09 PLACING TACK COAT

Apply tack coat on both horizontal and vertical surfaces to receive finish pavement per Section 302-5.3 of the Public Works Specifications "GREENBOOK." Apply tack coat to concrete surfaces that will be in contact with the asphalt concrete paving.

3.10 PLACING ASPHALT PAVING

Place asphalt paving to a total thickness of 4 inches or 1-inch thicker than adjacent pavement section, whichever is greater or to the standards of the agency having jurisdiction over the area of the work. Install in accordance with Section 302-5 of the Public Works Specifications "GREENBOOK."

3.11 COMPACTION OF ASPHALT CONCRETE PAVING

Compact until roller marks are eliminated and a minimum density of 92% has been attained per ASTM D 2041.

3.12 SURFACE TOLERANCE

Finished grade shall not deviate more than 0.02 of a foot in elevation from the existing surface.

3.13 APPLYING SEAL COAT

Apply seal coat at the rate of 0.10 to 0.15 gallon per square yard and spread a cover coat of sand at the rate of 6 to 12 pounds per square yard. Remove excess sand after 5 days. Apply per Section 302-5.10 in the Regional Supplement Amendments of the Public Works Specifications "GREENBOOK."

3.14 APPLYING PAVEMENT STRIPING AND MARKINGS

Apply traffic striping, markings, and all other directional information to new paved surfaces and existing surfaces that were damaged by the construction. Use traffic paint that matches the color of the existing traffic striping and markings. Apply per Section 310-5.6 of the Public Works Specifications "GREENBOOK." Wait a minimum of 10 days between the seal coat application and permanent traffic striping and markings. Apply a second coat of paint to all areas where the first coat of paint bled, curled, or discolored.

3.15 INSTALLING REFLECTIVE PAVEMENT MARKERS

After the application of all pavement striping and markings, install markers on new paved surfaces and existing surfaces that were damaged by the construction. Use markers that are reflective and match the color or combination of colors of the existing markers within the area of work. Install markers along the alignment and match spacing of the existing, as directed by the District's Representative, and in accordance with Section 85 of the State Standard Specifications.

3.16 INSTALLING FIRE HYDRANT MARKERS

Install a blue reflective marker opposite each new or relocated fire hydrant. Place the marker on the pavement and locate 6 inches off the centerline of the traffic striping or reflective pavement markers towards the hydrant. Install markers in accordance with Section 85 of the State Standard Specifications. Where existing fire hydrants have been relocated or removed from service, dislodge the existing blue marker from the pavement and dispose.

END OF SECTION



ORANGE COUNTY FIRE AUTHORITY FORMAL INVITATION FOR BIDS

FIRE TRAINING STRUCTURE IMPROVEMENTS AT THE OCFA REGIONAL FIRE OPERATIONS & TRAINING CENTER

ISSUED PURSUANT TO THE CALIFORNIA UNIFORM PUBLIC CONSTRUCTION
COST ACCOUNTING ACT (PCC22032) FOR PROJECTS EXCEEDING \$200,000

September 2, 2020

Solicitation No. SK2462

The Orange County Fire Authority is requesting bids to establish a construction agreement for fire training tower and strip mall structure improvements at the drill grounds of the Regional Fire Operations Training Center (RFOTC), as specified herein. OCFA will contract with the respondent who submits a responsive and responsible bid and offers the best pricing and value.

THIS PROJECT IS CONSIDERED A PUBLIC WORK.

Pursuant to SB854, 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 **September 16, 2020**
- Contractors' License: A, B, and/or specialty, as required by CA state law
- 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 Wednesday, September 23, 2020**
- **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 OCFA 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 **11:00 A.M. on Thursday, September 17, 2020**. OCFA will publish a response to all inquiries through the e-procurement system and/or may issue an addendum as a result.

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

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SECTION 1: SOLICITATION INFORMATION

1.1 DEFINITIONS

Cal/OSHA: California Division of Occupational Safety and Health

CSLB: California Contractor's State License Board

DIR: California Department of Industrial Relations

IFB: Invitation for Bids

NFPA: National Fire Protection Association

OCFA: Orange County Fire Authority

PCC: California Public Contract Code

PLC: Programmable Logic Controller

RFOTC: Regional Fire Operations Training Ground

UG: Underground

1.2 OBJECTIVE

The Orange County Fire Authority is requesting bids to establish a construction agreement for fire training structure improvements at the drill grounds of the OCFA Regional Fire Operations Training Center in Irvine, California, as specified herein.

1.3 MANDATORY SITE INSPECTION

A mandatory job walk for prime contractors will be held on **September 16, 2020 at 2:00 P.M. at the OCFA RFOTC Drill Grounds located at 1 Fire Authority Road, Irvine, CA.**

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 the OCFA 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 WILL BE REQUIRED TO UNDERGO A HEALTH SCREENING UPON ARRIVAL, MUST PROVIDE AND WEAR FACE MASKS, AND PRACTICE SOCIAL DISTANCING DURING THE JOB WALK.

1.4 CONTRACTOR MINIMUM QUALIFICATIONS

Contractor and all subcontractors must meet the following minimum qualifications in order to have its response considered:

1.4.1 Valid A, B, and/or specialty Contractor's License, as required by law, issued by the CSLB

1.4.2 Valid DIR registration

1.4.3 Business License with the City of Irvine

1.4.4 In addition to the experience requirements stated in Attachment Two, Contractor and all Subcontractors must possess a minimum of ten (10) years' experience providing the same or similar services **OR** equivalent experience on similar public works projects within the past five (5) years. Equivalence will be determined at the sole discretion of OCFA.

1.5 DUE DATE

Bids will be received no later than **11:00 AM on Wednesday, September 23, 2020**. 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 OCFA Road, Irvine, CA 92602. If attending the bid opening, please allow time to check in at the Reception Desk.

DUE TO COVID-19 ATTENDEES WILL BE REQUIRED TO UNDERGO A HEALTH SCREENING UPON ARRIVAL, MUST PROVIDE AND WEAR FACE MASKS, AND PRACTICE SOCIAL DISTANCING DURING THE BID OPENING.

1.6 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 delineations, alterations, or erasures 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 OCFA 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.

DUE TO COVID-19 ATTENDEES WILL BE REQUIRED TO UNDERGO A HEALTH SCREENING UPON ARRIVAL, MUST PROVIDE AND WEAR FACE MASKS, AND PRACTICE SOCIAL DISTANCING WHEN SUBMITTING THE BID.

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 or electronic mail bids shall not be considered.

1.7 INQUIRIES

Any questions related to the IFB shall be directed to the Purchasing Manager, Sara Kennedy. Questions and comments must be submitted via this bid's Q&A module on the PlanetBids website no later than **11:00 A.M. on Thursday, September 17, 2020**. The inquirer's name, company, address, phone number should be included. Oral 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.

1.8 SCHEDULE OF IMPORTANT DATES

Invitation for Bid Issue Date	September 2, 2020
Mandatory Job Walk	September 16, 2020 at 2:00 P.M.
Final Day to Submit Questions	September 17, 2020 at 11:00 A.M.
Deadline to Submit Bid Response	September 23, 2020 at 11:00 A.M.

SECTION 2: SCOPE OF SERVICES

2.1 PROJECT LOCATION

OCFA requires the improvement of the RFOTC drill grounds located at **1 Fire Authority Road, Irvine, CA, 92602**. The Drill Grounds were constructed in 2005 to accommodate training operations and simulate various conditions typically encountered during firefighting and rescue operations. Additional classrooms, training props and auxiliary equipment are now required, including improvements to training structures and various fire training equipment.

2.2 CONTRACTOR RESPONSIBILITIES

2.2.1 MATERIAL AND LABOR

Contractor shall provide all permits, material, labor, tools and supplies to complete the project as described herein. See Attachment Two for detailed information on these requirements and additional components that must be included in Contractor's bid and pricing.

2.2.2 CSLB LICENSE

Contractor and all 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.

2.2.3 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.

2.2.4 CITY OF IRVINE BUSINESS LICENSE REQUIREMENTS

Contractor and all subcontractors shall conform to the requirements of the City of Irvine and maintain an active business license pursuant to City of Irvine Municipal Code. The successful contractor and all subcontractors must remain in compliance with these requirements throughout the duration of the project.

2.2.5 WARRANTY

In addition to those requirements contained within Attachment Two, Contractor shall warrant the workmanship and manufacturing for a minimum of one year.

2.3 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.

2.4 DELIVERABLES

2.4.1 PROJECT COMPONENTS

2.4.2.1 TASK ONE: MODIFICATIONS TO EXISTING STRIP MALL STRUCTURE

2.4.2.2 TASK TWO: MODIFICATIONS TO TRAINING TOWER STRUCTURE

2.4.2.3 TASK THREE: INTERIOR LIVE FIRE PROP REPLACEMENT

Refer to Attachment Two of the IFB Document for detailed information about the project requirements including, but not limited to, the scope of services, drawings, specifications, submittals, required permits, inspections, etc.

2.4.2 SPECIFICATIONS**2.4.2.1 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.

2.4.2.2 EQUIVALENT ALTERNATE ITEMS**2.4.2.2.1 EQUIPMENT SUBMITTALS**

As noted throughout Attachment Two, 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 Attachment Two to substantiate that the item is equal no less than ten (10) days prior to the bid deadline; failure to do so may result in the bid 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 non-responsive.

2.4.2.2.2 ADDITIONAL SUBMITTALS

Contractor shall submit for approval all items and documentation prior to beginning work in accordance with the requirements outlined in Attachment Two. In addition to the requirements specified in Attachment Two, 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 Construction Agreement (see Attachment One).

2.4.2.3 MATERIALS

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

2.4.3 PROJECT EXECUTION**2.4.3.1 WORKMANSHIP**

OCFA will accept at a minimum the level of workmanship described below. 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.

2.4.3.2 CLEAN-UP

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.

2.4.3.3 PROTECTION

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

2.4.3.4 REPAIR

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

2.4.3.5 ACCEPTANCE DOCUMENTATION

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

2.5 SCHEDULES, TIMELINES, AND MEETINGS**2.5.1 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. The drill grounds will be in use during project work. 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 the existing circulation roadways within the training grounds shall be scheduled at least seven (7) days in advance.

2.5.2 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.

2.5.3 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 30 days

2.5.4 MEETINGS

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

2.5.4.1 PRE-AWARD MEETING

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

2.5.4.2 PRE-CONSTRUCTION JOB WALKS

These meetings with OCFA, the City of Irvine, and others as necessary and/or required by law will be coordinated by the Contractor

2.5.4.3 PROJECT STATUS MEETINGS

Weekly meetings held in person, unless otherwise determined

2.5.4.4 ACCEPTANCE

Meetings regarding project acceptance and warranty punch list items

2.5.4.5 ADDITIONAL

Other meetings deemed necessary for contract compliance

SECTION 3: GENERAL INSTRUCTIONS TO BIDDERS

3.1 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. 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 (OCFA’s bid management system).

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.

3.2 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.

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.

3.3 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>.

3.4 WITHDRAWAL OF BID

3.4.1 PRIOR TO BID DUE DATE AND TIME

At any time prior to the specified IFB due date and time, an Offeror may formally withdraw the bid by a written letter, facsimile or electronic mail from the Offeror or a designated representative. **Telephonic or oral withdrawals shall not be considered.**

3.4.2 AFTER BID DUE DATE AND TIME

In accordance with CA PCC §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 under the following conditions:

- A mistake is made in the bid
- 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.

- The mistake makes the bid materially different than Bidder intended it to be
- 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.

3.5 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.

3.6 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 reserves the right to reject any or all bids. 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 contains 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 Business and Professions Code.

3.7 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.**

3.8 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.

The OCFA may deem any bidder who fails to possess the required license to be non-responsive. Pursuant to Section 7028.5 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.

3.9 SB854 DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION

No contractor or subcontractor may be listed on an offer for a public works project unless registered with the CA Department of Industrial Relations pursuant to CA Labor Code Section 1725.5, with limited exceptions from this requirement for bid purposes only under CA 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 CA Department of Industrial Relations pursuant to CA Labor Code Section 1725.5. Pursuant to SB854, 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 CA 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.

3.10 PREVAILING WAGE

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

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

Failure to comply with the proper 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>.

3.11 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.

3.12 CONTRACT

A response to this IFB is an offer to contract with OCFA based upon the terms, conditions, and specifications contained within this document and the Construction Services Agreement, attached hereto as Attachment One. 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.

3.13 BID DOCUMENTS & FORMS

Bids 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.

3.14 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 erasure, interlineations or other modifications on the bid.
- Periods of time, stated as a 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 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, or make substitutions thereon.
- **Oral, telephonic, facsimile, and electronic bids or modifications will not be considered.**

3.15 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 any 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 shall not discriminate against any employee or applicant for employment in violation of Federal or State law;
- The Bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to a public servant in connection with the submitted offer;
- 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;
- 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.

3.16 ACCEPTANCE PERIOD

Unless otherwise specified herein, bids are firm for a period of 180 days.

3.17 BID OPENING

All the bids read aloud by the OCFA will be subject to further evaluation with respect to responsiveness of the bid and that the bidder is responsible.

3.18 DESIGNATION OF SUBCONTRACTORS

Pursuant to State law, the bidder must designate the name and location of each subcontractor who will perform work or render services for the prime in an amount that exceeds one-half of one percent (0.5%) of the contractor's total bid amount, as well as the portion of work each such subcontractor will perform at the time the bid is submitted.

Pursuant to Public Contract Code Section 4104, the OCFA has not implemented 3(A) which would bidders an additional twenty-four (24) hours after the deadline for submission of bids to submit the information about each subcontractor.

3.19 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.

3.20 COMPLIANCE WITH LAWS

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

3.21 CRITERIA FOR EVALUATION AND AWARD

The OCFA shall 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 and the inclusion of all required attachments and submissions. The OCFA must 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 "responsibility" 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. The OCFA reserves the right to inspect and review bidder's facilities, equipment and personnel and those of any identified subcontractors. 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.

3.22 GROUNDS FOR DISQUALIFICATION

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

- Contact regarding this procurement is made with any OCFA 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 additional terms, conditions, or agreements with the bid document;
- Offering of gifts or souvenirs, even of minimal value, to OCFA 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 resulting in the termination of such 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.

3.23 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 subsequent to the contract award.

3.24 INSURANCE

The successful bidder shall procure the insurance in the form and in the amount specified in the agreement. 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 insurance required under this section, 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 similar insurance required of the subcontractor has been obtained and approved.

3.25 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 K: Transmittal Page – Bid Award Documents to the Purchasing 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.

SECTION 4: BID AND CONTRACT REQUIREMENTS**4.1 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 A*)
- ☐ **Original Bidder’s Bond** (*Exhibit B*)
- ☐ **Certification of Bid** (*Exhibit C*)
- ☐ **Contractor’s Licensing Statement** (*Exhibit D*)
- ☐ **List of Subcontractors** (*Exhibit E*)
- ☐ **Certification of Site Examination** (*Exhibit F*)
- ☐ **Schedule of Values** (*Exhibit G*)
Available for download as a .XLS file on the “Documents” tab of the PlanetBids portal
- ☐ **Project Approach and Schedule** (*Exhibit H*)
- ☐ **List of Project References** (*Exhibit I*)
- ☐ **List of Current Projects** (*Exhibit J*)

4.2 CONTRACT SUBMITTALS (SUCCESSFUL BIDDER ONLY)

Within fourteen days (14) of the issuance of the Notice of Intent to Award, 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 K*)
- ☐ **Original Performance Bond** (*Exhibit L*)
- ☐ **Original Payment (Labor and Materials) Bond** (*Exhibit M*)
- ☐ **Award Certifications** (*Exhibit N*)
- ☐ **IRS Form W9** (*Exhibit O*)
- ☐ **Insurance Certificates**
- ☐ **Signed Agreement**

EXHIBIT A: TRANSMITTAL PAGE ONE – IFB RESPONSE FORMS**TO:** Orange County Fire Authority**FROM:** _____

(Legal Name of Contractor)

PROJECT: _____

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 G: Schedule of Values):

BID LUMP SUM:**NUMERICAL:** \$ _____**WRITTEN:** _____**ACKNOWLEDGMENT OF ADDENDA:**

No.: _____ Dated: _____ No.: _____ Dated: _____
No.: _____ Dated: _____ No.: _____ Dated: _____

BIDDER'S CHECKLIST:

Bidder certifies that the following documents are included in Bid:

- | | | |
|---|--|---|
| <input type="checkbox"/> Transmittal Page (<i>Exhibit A</i>) | <input type="checkbox"/> List of Subcontractors (<i>Exhibit E</i>) | <input type="checkbox"/> Project Approach and Schedule (<i>Exhibit H</i>) |
| <input type="checkbox"/> Bidder's Bond (<i>Exhibit B</i>) | <input type="checkbox"/> Certification of Site Examination (<i>Exhibit F</i>) | <input type="checkbox"/> List of Past Projects References (<i>Exhibit I</i>) |
| <input type="checkbox"/> Certification of Bid (<i>Exhibit C</i>) | <input type="checkbox"/> Schedule of Values (<i>Exhibit G</i>) | <input type="checkbox"/> List of Current Projects (<i>Exhibit J</i>) |
| <input type="checkbox"/> Contractor's Licensing Statement (<i>Exhibit D</i>) | | |

MINIMUM QUALIFICATIONS:

Bidder Meets the Minimum Qualifications as follows:

CSLB License #: _____ **Expiration:** _____**DIR Registration #:** _____ **Expiration:** _____**Number of Years of Experience:** _____**SIGNATURE OF CONTRACTOR:** _____**PRINTED NAME:** _____ **TITLE:** _____

EXHIBIT B: 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, _____ as Principal ("Principal"), and _____ as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of _____ 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 _____ Dollars (\$_____) 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 (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 ____ day of _____, 20____. 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)

Principal_____
By_____
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Surety_____
By_____
Name of California Agent of Surety_____
Address of California Agent of Surety_____
Telephone Number of California Agent of Surety

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

EXHIBIT C: CERTIFICATION OF BID

In responding to IFB SK2462 Fire Training Structure Improvements, 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 Construction Services Agreement (Attachment One), 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 Attachment One.
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.
11. Bidder shall declare that the only persons or parties interested in the proposal as principals are those named therein; that no officer, agent, or employee of the OCFA is personally interested, directly or indirectly, in the proposal; that the proposal is made without connection to any other individual, firm, or corporation making a bid for the same work; and that the proposal is in all respects fair and without collusion or fraud.

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: _____

SIGNATURE OF CONTRACTOR: _____

PRINTED NAME: _____ **TITLE:** _____

CONTRACTOR ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP CODE:** _____

IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:

NAME OF CORPORATION: _____

DATE OF INCORPORATION: _____

PRESIDENT: _____ **TREASURER:** _____

SECRETARY: _____ **MANAGER:** _____

EXHIBIT D: 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:** _____ **CLASS:** _____ **EXPIRATION:** _____**CA DIR REGISTRATION NUMBER:** _____ **EXPIRATION:** _____**CONTRACTOR TELEPHONE:** _____ **CONTRACTOR FAX:** _____**BUSINESS****ADDRESS:** _____**LENGTH OF TIME IN BUSINESS:** _____**LENGTH OF TIME AT CURRENT LOCATION:** _____**NUMBER OF EMPLOYEES:****NUMBER OF CURRENT CLIENTS:**

*If the contractor operates as a sole proprietorship:***NAME OF INDIVIDUAL CONTRACTOR:** _____**SIGNATURE OF OWNER:** _____**BUSINESS ADDRESS:** _____

*If the contractor operates under a partnership:***NAME OF FIRM:** _____**PARTNER NAME:** _____ **PARTNER TITLE:** _____**PARTNER ADDRESS:** _____**SIGNATURE OF PARTNER:** _____**PARTNER NAME:** _____ **PARTNER TITLE:** _____**PARTNER ADDRESS:** _____

SIGNATURE OF PARTNER: _____

If contractor operates under a corporation:

NAME OF CORPORATION: _____

CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF CALIFORNIA:

SIGNATURE OF CORPORATION PRESIDENT

SIGNATURE OF THE CORPORATION SECRETARY

DATE

Management person responsible for direct contact with OCFA:

NAME: _____ **TITLE:** _____

TELEPHONE: _____ **E-MAIL:** _____

Person responsible for the day-to-day servicing of the account/project.

NAME: _____ **TITLE:** _____

TELEPHONE: _____ **E-MAIL:** _____

EXHIBIT E: 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.**

Subcontractor Name:	_____	Location:	_____
Portion of Work:	_____	Trade:	_____
Bid Amount:	_____		
Contractor's License Number:	_____	DIR Number:	_____
Subcontractor Name:	_____	Location:	_____
Portion of Work:	_____	Trade:	_____
Bid Amount:	_____		
Contractor's License Number:	_____	DIR Number:	_____
Subcontractor Name:	_____	Location:	_____
Portion of Work:	_____	Trade:	_____
Bid Amount:	_____		
Contractor's License Number:	_____	DIR Number:	_____

EXHIBIT F: CERTIFICATION OF SITE EXAMINATION

Signature below certifies 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: _____

Company Name: _____

Signature: _____

Printed Name / Title of Company Representative: _____

Date: _____

EXHIBIT G: SCHEDULE OF VALUES

Bidder must download and complete Exhibit G: Schedule of Values, and submit with Bid documents. Exhibit G: Schedule of Values is attached separately and is available for download as a Microsoft Excel file via the “Documents” tab of the PlanetBids website. **Failure to complete and submit the Schedule of Values will result in the bid being deemed non-responsive.**

EXHIBIT H: PROJECT APPROACH AND TIMELINE

Provide responses to the questions below; the information may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Provide a brief statement with general description of the proposed project approach and identify whether the materials bid are as-specified or will include proposed alternate equivalents.

2. Provide the project phases along with the number of working days required to complete each phase in the table below. Attach additional sheets if necessary.

No.	Project Phase Description	Number of Working Days to Complete
Total Working Days to Complete Project:		

EXHIBIT I: LIST OF PROJECT REFERENCES

The Bidder must demonstrate knowledge of public construction techniques and the performance of similar work for other public agencies. The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.** Attach additional sheets as necessary.

1. Submit documentation demonstrating how Bidder and subcontractors meet the minimum qualifications outlined in §1.4.1, §1.4.2, and §1.4.3.
2. Contractor and all Subcontractors must possess a minimum of ten (10) years' experience providing the same or similar services OR equivalent experience on similar public works projects within the past five (5) years. Describe how Contractor and all Subcontractors meet this requirement (§1.4.4 of this IFB Document).
3. Submit a company history including all business names that the company has offered live fire training equipment under. Provide any and all business names, including acquisitions, and demonstrate experience in coordination, design, installation and training of computerized environment training systems using natural gas fuel for interior applications.
4. Provide a company history including a minimum of ten (10) years offering computerized live fire training systems utilizing natural and natural gas fuels.
5. Provide a complete history of any accidents or incidents, whether they resulted in injury or not, that occurred within or around a training unit produced by the manufacturer offering the equipment. Failure to include all incidents, including operator error or system failures, will be considered non-responsive and may result in rejection of bid. The list shall include any and all equipment produced under any business name (including acquisitions) that the company has done business as (DBA).
6. Provide written documentation of the equipment certification for the completed live fire training equipment offered:
 - a. Certification from a Nationally Recognized testing Laboratory (NRTL) (Dated within the last 12 months) in compliancy to UL 508A, NFPA 54, 58, 86, and 1402. The NRTL must meet the requirements of OSHA 29 CFR 1910.7.
 - b. A compliancy letter from an Independent Engineering firm of a completed safety analysis and flame failure analysis of the operational system. The FTA and FFA must be in compliancy with MIL-STD 882D at a minimum.
7. The OCFA expressly reserves the right to reject the bid of any bidder who has failed to complete five (5) similar projects of substantially the same type of work, as stated in Attachment Two, in a timely or satisfactory manner. Provide customer references for five completed projects for which the Bidder has performed similar work within the past ten (10) years. Bidder must utilize the following form for each reference, as stated in Attachment Two:

3.04 REFERENCES**Customer References**

The supplier must utilize this form to supply customer references for each unit. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name:	
Address:	
Contact name:	Contact phone #:

Model name/number:	Delivery date:
Type of equipment:	Number of props:

List all props installed including options:

Prop #1	Prop #2	Prop #3	Prop #4	Prop #5
Prop #6	Prop #7	Prop #8	Prop #9	Prop #10

NRTL certifying agency:	Yes	No	Contact Name:	Contact Number:
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EXHIBIT J: LIST OF CURRENT PROJECTS

The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

Project Name	Description of Bidder's Work	Completion Date	Project Cost

EXHIBIT K: TRANSMITTAL PAGE TWO – BID AWARD DOCUMENTS**TO:** **Orange County Fire Authority****FROM:** _____

(Legal Name of Contractor)

PROJECT: **Fire Training Structure Improvements**
_____**AWARDED CONTRACTOR'S CHECKLIST:**

The awarded Contractor is required to provide the following documents:

- ☐ **Transmittal Page** (*Exhibit K*) ☐ **Award Certifications** (*Exhibit N*) ☐ **Signed Agreement**
- ☐ **Performance Bond** (*Exhibit L*) ☐ **W9** (*Exhibit O*)
- ☐ **Payment Bond** (*Exhibit M*) ☐ **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:** _____**TITLE:** _____

EXHIBIT L: 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 _____ ("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 SK2462 – FIRE TRAINING STRUCTURE IMPROVEMENTS

("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 _____ ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of [WRITE OUT AMOUNT] DOLLARS (\$[AMOUNT]), 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 ____ day of _____, 20____. 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)

Principal_____
By_____
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Surety_____
By_____
Name of California Agent of Surety_____
Address of California Agent of Surety_____
Telephone Number of California Agent of Surety

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

EXHIBIT M: 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 _____, ("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 SK2462 – FIRE TRAINING STRUCTURE IMPROVEMENTS

("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, _____ ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of [WRITE OUT AMOUNT] DOLLARS (\$[AMOUNT]), 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 ____ day of _____, 20__.

CONTRACTOR:

(Affix Corporate Seal)

Principal_____
By_____
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Surety_____
By_____
Name of California Agent of Surety_____
Address of California Agent of Surety_____
Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

EXHIBIT N: 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: _____

Legal Name of Contractor: _____

Signature: _____

Printed Name: _____

Title: _____

EXHIBIT O: IRS FORM W9

Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

**Request for Taxpayer
Identification Number and Certification**

**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.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only **one** of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ Other (see instructions) ▶ _____

☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

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) _____
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Requester's name and address (optional)

Print or type
See Specific Instructions on page 2.

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 Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number

				-						
--	--	--	--	---	--	--	--	--	--	--

or

Employer identification number

				-						
--	--	--	--	---	--	--	--	--	--	--

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 on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶
------------------	----------------------------	--------

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

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? on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

ATTACHMENT ONE: SAMPLE CONSTRUCTION AGREEMENT

Following is a sample Construction Services Agreement. Concurrent with the issuance of the Notice of Intent to Award, OCFA will provide the successful Contractor with the final Agreement containing all project specific information for signature. Contractor must return two original agreements with wet ink signature to OCFA within the timeframe specified herein.

=====

**ORANGE COUNTY FIRE AUTHORITY
CONSTRUCTION SERVICES AGREEMENT
FOR _____**

THIS AGREEMENT FOR _____ ("Agreement") is made and entered into this ____ day of _____, 20____, ("Effective Date") by and between Orange County Fire Authority, a California Joint Powers Authority ("OCFA"), and _____, ("Contractor"). OCFA and Contractor are sometimes hereinafter individually referred to as "Party" and collectively as the "Parties".

RECITALS

WHEREAS, OCFA requires _____ as requested in IFB _____, hereinafter referred to as "Project"; and

WHEREAS, Contractor has submitted to OCFA a bid dated _____, incorporated herein by this reference ("Bid"); and

WHEREAS, OCFA and Contractor desire to enter into this Agreement in order to receive and provide, respectively, _____ on the same terms, conditions, and pricing as further set forth in Section 1.1 of this Agreement;

AGREEMENT

NOW THEREFORE, OCFA and Contractor mutually agree as follows:

SECTION ONE

1. SCOPE OF AGREEMENT. In compliance with all terms and conditions of this Agreement, OCFA shall procure _____ from Contractor as more fully detailed in Exhibit "A", attached hereto, which includes by reference and by addendum: (1) OCFA's IFB _____, dated _____ ("Solicitation"), (2) Contractor's Bid, dated _____, and (3) any amendments, addendums, change orders, or modifications mutually agreed upon by the Parties hereto ("Services", "Goods" or "Work"). In the event of any inconsistency between the terms contained in Exhibit "A", 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 Exhibit "A" shall govern, in that order.

2. GENERAL CONDITIONS. Contractor certifies and agrees that all the terms, conditions, and obligations of this Agreement, including the location of the Project site, and the conditions under which the work is to be performed, have been thoroughly reviewed. Contractor enters into this Agreement based upon Contractor's investigation of all such matters and is in no way relying upon any opinions or representations of OCFA. It is agreed that this Agreement and the attached exhibits represent the entire agreement. It is further agreed that the Contractor and its

subcontractors, if any, will be and are bound by this Agreement relating in any part or in any way, directly or indirectly, to the work covered by this Agreement. Contractor further certifies and agrees that the work described herein 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.

3. MATERIALS AND LABOR. Contractor shall furnish, under the conditions expressed herein, at Contractor's own expense, all labor and materials necessary, except such as are mentioned in Exhibit "A" to be furnished by the OCFA, to construct and complete the Project, in good workmanlike and substantial order. 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 them directly and deduct the amount of payments from this Agreement price and any amounts due to Contractor. In the event OCFA receives a stop notice from any laborer or material supplier alleging nonpayment 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.

4. CONTRACT PRICE AND METHOD OF PAYMENT

4.1 CONTRACT PRICE. OCFA agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Agreement, subject to any subsequent additions or deductions as provided in approved change orders, the sum of _____ (\$_____) as shown on Exhibit "A".

4.2 METHOD OF PAYMENT. Within thirty (30) days from the commencement of work, there shall be paid to the Contractor a sum equal to ninety-five percent (95%) of the value of the actual work completed plus a like percentage of the value of material suitably stored at the worksite or approved storage yards subject to or under the control of the OCFA, since the commencement of the work as determined by the OCFA.

Thereafter, on a schedule issued by the OCFA at the commencement of the job which shows a minimum of one payment made to the Contractor per month for each successive month as the work progresses and the request for payment due dates from the Contractor to meet the payment schedule, 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 since the commencement of work as determined by the OCFA, 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.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the OCFA's Project Manager, stating that the work for which payment is demanded has been performed in accordance with the terms of this Agreement, and that the amount stated in the certificate is due under the terms of this Agreement. Partial payments on this Agreement price shall not be considered as an acceptance of any part of the work.

4.3 RETENTION. The OCFA will retain five percent (5%) of the amount of each such progress estimate and material cost until the Final Payment.

5. CONTRACTOR'S REPRESENTATIVE. The following principal of Contractor is hereby designated as being the principal and representative of Contractor authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: _[Name], [Title]_. The foregoing principal shall be responsible during the term of this Agreement for directing all activities of Contractor and devoting sufficient time to personally supervise the work hereunder. The foregoing principal may not be changed by Contractor without the express written approval of OCFA

6. OCFA PROJECT MANAGER. The Project Manager shall be _[Name], [Title]_, unless otherwise designated in writing by OCFA. It shall be Contractor's responsibility to keep the Project Manager fully informed of the progress of the provision of the Goods or Services and Contractor shall refer any decisions that must be made by OCFA to the Project Manager. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Project Manager.

7. NOTICES. 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, Purchasing
Manager
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]
Attention: _____
[Address]

SECTION TWO

8. COMPLIANCE WITH LABOR CODE AND PUBLIC CONTRACT CODE. OCFA is subject to the provisions of law relating to prevailing wages, labor law generally, and public contracts in the State of California. It is agreed that all provisions of law applicable to public contracts are a part of this Agreement to the same extent as though set forth herein, and will be complied with by the Contractor.

No contractor or subcontractor may be awarded or perform a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall not pay less than the prevailing wage. It shall be the responsibility of the Contractor to obtain the prevailing wage rates from the Director of Industrial Relations directly.

9. PREVAILING WAGE. This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the higher of the two prevailing wage rates, federal or state, will be enforced. The work is subject to the payment of not less than prevailing wages under Labor Code Section 1770 et seq. Contractor agrees to comply with all related provisions of the Labor Code, including but not limited to, the provisions of Labor Code Section 1775 relating to payment of prevailing wages, Section 1777.5 relating to employment of apprentices and Section 1811-1813 relating to the payment of overtime. Failure to comply with the proper prevailing wage requirements may result in penalty of up to \$200 per day per worker. Failure to comply with apprenticeship requirements may result in penalty of \$100-\$300 for each calendar day of violation. Failure to pay proper overtime rate may result in a penalty of \$25 per day per worker. Bidders 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 this Agreement which will be awarded to the successful bidder. This information is available at the Department of Industrial Relations website: <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Bidders are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Further information on Compliance Monitoring Unit requirements can be found at: <https://www.dir.ca.gov/Public-Works/PublicWorksEnforcement.html>.

In accordance with Section 1773.2 of the CA Labor Code, the Contractor shall post a copy of the determination of prevailing rate of wages at each job site. Travel and subsistence payments to each workman needed to execute the work shall be made as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the CA Labor Code.

10. RELEASE OF LIENS AND PAYMENT SCHEDULE. Prior to each progress payment Contractor shall submit a "Conditional Release of Lien upon Progress Payment" with the first, and thereafter each, progress payment application in the amount of the application for payment specifying the period of time for which the Conditional Release applies.

For each payment period, if payment has been received by Contractor for the previous application, Contractor shall submit an "Unconditional Waiver and Release Upon Progress Payment" for the labor and materials associated with the progress billing satisfied with the prior payment. The subsequent progress billing is then submitted with a new "Conditional Release of Lien" in the amount of the application for the next specified period of time.

When all project labor and materials have been paid in full, Contractor shall submit an "Unconditional Waiver and Release Upon Final Payment".

Final Payment shall not become due until Contractor submits to OCFA's Project Manager: (1) an Unconditional and Final Release of Liens containing an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work and materials for which OCFA or OCFA's property might in any way be responsible, have been paid or otherwise satisfied, and signed by all subcontractors and suppliers; (2) the consent of the surety to Final Payment; and (3) if reasonably required by the OCFA's Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of this Agreement, to the extent and in such form as may be designated by the OCFA's Project Manager. OCFA's Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.

If any Subcontractor or material supplier refuses to sign the Final Release of Liens or to furnish a release or waiver required by OCFA's 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 OCFA's Project Manager to indemnify OCFA against any lien and against the costs and reasonable attorney fees in discharging such lien. If any lien remains unsatisfied after all payments are made, Contractor shall refund to OCFA all monies that the OCFA pays in discharging such lien, including all costs and reasonable attorneys' fees, or OCFA in its sole discretion may proceed to make a demand against the surety for all such costs and attorney fees. In the event OCFA makes demand for payment against the surety, Contractor shall be responsible to reimburse OCFA upon demand for any costs and reasonable attorney fees not paid by the surety.

11. TIME OF COMMENCEMENT AND COMPLETION. Contractor agrees to commence the Project within number of days specified in Exhibit "A" and shall diligently prosecute the work to completion as provided for herein, excluding delays caused or authorized by the OCFA as set forth in this Agreement.

Time is of the essence of this Agreement. Contractor shall prepare and obtain approval of all shop drawings, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with construction schedule approved by the OCFA Project Manager. Contractor shall coordinate the work covered by this Agreement with that of all other Contractors, subcontractors of the OCFA, if any, in a manner that will facilitate the efficient completion of the entire work in accordance with this Agreement. OCFA shall have the right to assert complete control of the premises on which the work is to be performed and shall have the right to decide the time or order in which the various portions of the work shall be installed or the priority of the work of other subcontractors, and, in general, all matters representing the timely and orderly conduct of the work of Contractor on the premises.

12. LIQUIDATED DAMAGES FOR DELAY. The Parties agree that if the total work called for under this Agreement, in all parts and requirements, is not completed within the time approved by OCFA, plus any allowance made for delays or extensions authorized by OCFA, the OCFA will sustain damage which would be extremely difficult and impracticable to ascertain. The parties therefore agree that Contractor will pay to OCFA the sum of Five Hundred Dollars (\$500.00) per day, as liquidated damages, and not as a penalty, for each and every calendar day during which completion of the Project is so delayed. Contractor agrees to pay such liquidated damages and further agrees that OCFA may offset the amount of liquidated damages from any monies due or that may become due Contractor under this Agreement.

13. COMPLETION. Within 10 days after this Agreement completion date of the Project, Contractor shall file with the Project Manager its affidavit stating that all workers and persons employed, all firms supplying materials, and all subcontractors upon the Project have been paid in full, and that there are no claims outstanding against the Project for either labor or material, except those certain items, if any, to be set forth in an affidavit covering disputed claims, or items in connection with Stop Notices which have been filed under the provisions of the statutes of the State of California. The Project Manager may require affidavits or certificates of payment and/or releases from any subcontractor, laborer or material supplier.

Upon receipt of Contractor's affidavit, the Project Manager shall prepare appropriate documentation setting forth the particular details of the completed Project, including but not limited to, description and amount of all change orders, the final amounts of this Agreement, as amended, the time and dates of the total agreement and the identification of any unresolved claims or disputes. If necessary, Project Manager shall submit the Project and the agreements to the OCFA Board of Directors for acceptance of the job as complete.

14. SURETY BONDS

14.1 FAITHFUL PERFORMANCE BOND. Contractor shall furnish a Payment (Labor and Materials) Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.2 PAYMENT BOND. Contractor shall furnish a Faithful Performance Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.3 GENERAL REQUIREMENTS To the extent required under Civil Code section 9550, the Contractor shall furnish and maintain throughout completion of the Project the aforementioned bonds. The bonds must be issued by a surety authorized by the State Insurance Commissioner to do business in California.

14.4 UNACCEPTABLE SURETY. If any surety upon any bond furnished in connection with the Agreement becomes unacceptable to the OCFA, or if any such surety fails to furnish reports as to its financial condition from time to time as requested by the Project Manager, the Contractor shall promptly furnish such additional security as may be required by the Project Manager or the OCFA Board of Directors from time to time to protect the interests of the OCFA and of persons supplying labor materials in the prosecution of the work contemplated by this Agreement.

14.5 SUBSTITUTION OF SECURITY. Pursuant to Public Contract Code Section 22300, the Contractor shall be permitted to substitute securities for any monies withheld by the OCFA to ensure performance under this Agreement at the request and expense of the Contractor if he/she chooses to do so.

15. INSURANCE.

15.1 REQUIREMENTS. Contractor shall at all times carry, on all operations hereunder, bodily injury, personal injury, including death and property damage liability insurance, including automotive operations, bodily injury and property damage coverage; and builders' all risk insurance. All insurance coverage shall be in amounts specified below and shall be evidenced by the issuance of a certificate in a form prescribed by the OCFA and shall be underwritten by insurance companies satisfactory to OCFA for all operations, subcontract work, contractual obligations, product or completed operations, all owned, hired, and non-owned vehicles. Said insurance coverage obtained by the Contractor, excepting workers' compensation coverage, shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the OCFA to add the following provisions to the insurance policies: (1) the policy or policies shall name the OCFA, 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, Officers, Agents, and Employees, as determined by the OCFA, as additional insured on said policies; and (2) each policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its Directors, Officers, Officials, Agents, Employees, Project Manager, Volunteers or Consultants, shall not contribute with the primary insurance.

Workers' Compensation	Minimum of \$1,000,000 - In Accordance with the Workers' Compensation Act of the State of California.
General Liability, including operations, products and completed operations	<p>\$5,000,000, per occurrence for bodily injury, personal injury and property damage/\$5,000,000 aggregate.</p> <p>If commercial general liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the required occurrence limit.</p> <p>For those businesses that are self-insured, a written declaration by the principal of the business should be provided.</p>
Automobile Liability, including owned, hired, and non-owned vehicles	\$1,000,000 combined single limit per occurrence; \$1,000,000 uninsured motorist.
Builder's Risk	All Risk Basis; Completed value of the project without co-insurance penalty provided.

Contractor shall maintain all of the foregoing insurance coverage in force until the work under this Agreement is fully completed and accepted by OCFA. The requirement for

carrying the foregoing insurance shall not derogate from the provisions for indemnification of OCFA by Contractor under this Agreement. 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 Agreement, the following insurance in amounts not less than the amounts specified and issued by a company admitted in California and having an A.M. Best's Guide Rating of "A-" Class VII or better: However, OCFA 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".

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.

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.

15.2 EVIDENCE OF COVERAGE. 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 coverage 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 OCFA.

OCFA 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.

15.3 SUBCONTRACTORS. 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 OCFA 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 to name the OCFA, its officials, officers, employees, agents and volunteers, as additional insureds. Contractor shall not allow any subcontractor to commence any work relating to this Agreement unless and until it has provided evidence satisfactory to OCFA that the subcontractor has secured all insurance required under this section. Payment under this Agreement for services performed by subcontractors may be withheld by OCFA until evidence satisfactory to OCFA is provided that the subcontractor has secured all the required insurance is provided to OCFA.

16. RISK AND INDEMNIFICATION. All work covered by this Agreement done at the site of construction or in preparing or delivering materials to the site shall be at the risk of Contractor alone. Contractor agrees to save, indemnify and keep OCFA, its Directors, Officers, Agents, Employees, Project Manager, and Consultants for this Agreement, and all public agencies from whom permits will be obtained and their Directors, Officers, Agents and Employees harmless against any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (Contractor's employees included) and damage to property, arising directly or indirectly out of the obligations herein undertaken or out of the operations conducted by Contractor, except that the indemnity obligation of Contractor shall be reduced by an amount proportional to the active negligence of the OCFA, if any, and will make good to and reimburse OCFA for any expenditures, including reasonable attorneys' fees OCFA may incur by reason of such matters, and if requested by OCFA, will defend any such suits at the sole cost and expense of Contractor.

In the event Contractor or its insurer refuses or fails to provide a legal defense to OCFA after receiving written notice of the legal action and a tender and demand for defense, OCFA shall have the right to select counsel of its own choice to represent all the interests of the OCFA. Contractor agrees that the amount of legal costs and expenses, including attorneys' fees, may be withheld by OCFA from any Contract amounts due and owing to Contractor until such time as a final determination is made as to the responsibility for payment of said fees and costs.

SECTION THREE

17. INDEPENDENT CONTRACTOR. Neither OCFA nor any of its employees shall have any control over the manner, mode or means by which Contractor, its agents or employees, perform the services required herein, except as otherwise set forth herein. Contractor shall perform all services required herein as an independent contractor of OCFA and shall remain at all times as to OCFA a wholly independent contractor with only such obligations as are consistent with that role. Contractor shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of OCFA.

18. ASSIGNMENT. Contractor shall neither delegate its duties or obligations, nor assign its rights with respect to this Agreement, 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.

19. COMPUTATION OF TIME. When any period of time is referred to in this Agreement 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.

20. INTEREST. Any monies not paid when due to either party under this Agreement shall bear interest at the rate of ten (10%) percent per annum, commencing on the forty-sixth (46th) day after demand for payment thereof after such monies are lawfully due and payable, except as otherwise provided in this Agreement.

21. 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 this Agreement as now or hereafter existing or at law, equity, or by statute.

22. NON-WAIVER. The failure of the OCFA to notify the Contractor of any default under this Agreement 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 Agreement, 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 this Agreement, or to exercise any option in this Agreement 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.

23. SEVERABILITY. In case any one or more provisions set forth in this Agreement 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 this Agreement, and this Agreement 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 Agreement.

24. NO THIRD PARTY BENEFICIARIES. This Agreement is 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 Agreement except as may be expressly provided in this Agreement to the contrary.

25. 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 this Agreement, and none of the provisions of this Agreement 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 Agreement by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.

26. COUNTERPARTS. This Agreement 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.

27. GOVERNING LAW. This Agreement shall be governed by the laws of the State of California.

28. SERVICES PRIOR TO EXECUTION. Notwithstanding the fact that this Agreement is executed as of the date first set forth above, the Parties recognize that a portion of the Work required under this Agreement may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of this Agreement and shall be deemed to be a part of the Work. Without limiting the foregoing, all of Contractor's liabilities and obligations to OCFA 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.

29. SURVIVAL OF RIGHTS. Any indemnity, warranty, guarantee given by the Contractor to the OCFA under this Agreement shall survive the expiration or termination of this Agreement and shall be binding upon Contractor until any action under this Agreement is barred by the applicable statute of limitations.

30. NON-DISCRIMINATION. 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 Agreement. Contractor shall take steps to ensure that applicants for any job and 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.

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.

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 Agreement 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.

IN WITNESS WHEREOF, the Parties hereto have executed this Construction Agreement as of the date first hereinabove written.

"OCFA"

ORANGE COUNTY FIRE AUTHORITY

Date:_____

By:_____

Sara Kennedy, CPPB
Purchasing Manager

"CONTRACTOR "

NAME

Date:_____

By:_____
Name, Title

Date:_____

By:_____
Name, Title

ATTACHMENT TWO: DRAWINGS AND SPECIFICATIONS

Following below are applicable drawings and specifications:

Orange County Fire Authority



Regional Fire Operations and Training Center

Training Grounds Modifications & Upgrades

This document contains an overview and summary of the proposed modifications and upgrades to the existing fire training multi-story Tower and Strip Mall structures located at the Regional Fire Operations and Training Center in Irvine, California.

Prepared By:

**RSSE Structural Engineers, Inc.
&
G² Solutions Group, Inc.**

August 2020

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|-----|-------|-------------------------------------|
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E. Structural Drawings (30" x 42")

12 Sheets

- | | | |
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A. SUMMARY / OVERVIEW

Orange County Fire Authority (OCFA) is seeking proposals for to conduct modifications and additions to the existing fire training tower and strip mall structures located within the training grounds. The scope of work is defined within the attached project specifications and approved contract drawings. Below is a brief summary for the administration of the work.

1. **Project Understanding:** Each bidder acknowledges that he or she has carefully read the included specifications and contract drawings and has examined all documents for the scope of work prior to submission of their bid proposal.
2. **Project Permits:** The current approved architectural and structural drawings are on file with the City of Irvine. It shall be the responsibility of the contractor to procure the proper permits from the city prior to beginning work.
3. **Project Schedule:** The contractor shall be advised that the work described herein shall be performed at an occupied and active site. Prior to beginning of work, contractor shall prepare a schedule of work and submit to OCFA for review and acceptance. Any work, deliveries or efforts which may impede the existing circulation roadways within the training grounds shall be scheduled at least seven (7) days in advance with the OCFA Fire Training department personnel.
4. **Project Workers:** All contractors and subcontractors performing work shall have and maintain the following current registrations.
 - a. Contractor License registered with the State of California Contractors State License Board (CSLB)
 - b. Registration with the State of California Department of Industrial Relations (DIR)
 - c. City of Irvine business license.
 - d. Insurances
5. **Project Submittals:** Submittals shall be prepared by the general contractor or subcontractor after award of contract as described within the respective specification section or noted within the approved contract drawings. Submittals are to be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
 - a. Contractor shall provide five (5) copies of information required or one (1) electronic version.
 - b. Submittals shall be reviewed and returned within ten (10) working days of submission. Failure to provide submittals in a timely manner will not justify delays in construction. Corrections to submittals shall be addressed as noted. Failure to address may result in rejection of work.
 - c. Contractor shall maintain one (1) copy of each approved submittal at the construction site for the duration of the project.

6. Project Documentation and As-Built Drawings: Upon completion of work, contractor shall provide the following documents for final review and acceptance by OCFA and the architect or engineer of record.
 - a. Warranties: Provide written warranties for all elements as noted within the project specifications and approved contract drawings.
 - b. Operation and Maintenance Manuals: Provide copies of manuals with cover pages as referenced within the project specifications.
 - c. As-Built Drawings: Provide one (1) electronic copy of as-built drawings noting actual installation and dimensions marked in legible "red".

B. PROJECT TASKS

1. TASK 1 – Modifications to Existing Strip Mall Structure

Modifications to Strip Mall Structure: The existing Strip Mall structure will require various modifications in order to address the need for various training scenarios not available within the training grounds.

- Construction of a new mansard roof element on the north side with a metal observation catwalk
- Construction of a metal stud/exterior face block wall with window openings along the east parapet wall.
- Construction of a new sloping roof above the existing sloped roof along the west wall.
- Full enclosure of the existing trash bin area which includes a north facing wall, roof structure, overhead coiling door and interior power
- for relocated ice machine.
- Installation of existing SCBA Bottle Fill unit within existing 1st Floor Storage Room.

2. TASK 2 – Modifications to Training Tower Structure

Modifications to Training Tower Structure: The existing Multi-Story Training tower structure will require various modifications to accommodate the proposed live fire prop replacement and address other training scenarios.

- Construction of a metal stud/exterior face block low wall at 2nd level west facing balcony. This is to replace the existing metal guardrails.
- Removal of noted non-bearing interior concrete masonry unit (CMU) walls for live fire prop room enlargement.
- Addition of noted interior CMU walls to close off rooms and spaces.
- Removal and infill of existing exterior wall louvers
- Construction of new “Denver Window Prop” at 2nd floor
- Removal of existing prop room vision panels

3. TASK 3 – Interior Live Fire Prop Replacement

Modifications to Training Tower Structure: The existing live fire props are in need of replacement. These props utilize 20-year old technology which restricts the training abilities. The system is also a single fault source type which if one prop fails, all props within the building are non-functional. The proposed prop replacement will provide heightened training, with new technology and advancements in functionality. Below are the proposed replacements and associated room modifications required.

Tower Burn Room #1: 1st Floor Living Room Prop #F103

Many deficiencies were noted in this room which should be addressed to increase the training potential and environment. The proposed plan is to replace the existing prop with a new multi-burner kitchen fire.

- Reduce exterior wall louver size
- Reconfigure east exterior wall opening
- Close off ceiling exhaust opening and utilize wall mounted exhaust fan at east exterior wall. This will increase the heat levels.

Tower Burn Room #2: 2nd Floor Bedroom #F202

The most noticeable deficiency noted was the room and prop size. For this room the following should be considered to increase the training potential and environment. The prop would be replaced with multi-burner sofa prop with ceiling rollover effect fire.

- Reduce exterior wall louver size
- Remove Exterior windows
- Reduce emergency exhaust shaft size.
- Remove or move interior west wall of prop room to increase size. Consider blind side entry into room.
- Replace bed prop with suitable smaller footprint prop such as entertainment center, sectional sofa or concealed cabinets with multiple burners and flame extension.
- Install forcible entry door at exterior access point(s)
- Remove steel heat shield protection at ceiling above prop
- Extend high temperature lining protection at ceiling and walls

Tower Burn Room #3: 3rd Floor Kitchen Prop #F303

The existing kitchen fire prop is an early generation model with single use. For this room the following should be considered to increase the training potential and environment. The prop would be replaced with a multi-burner office fire prop

- Replace existing prop with multiple burner and flame spread style prop to simulate concealed fire, grease flare up or commercial hood fire.
- Reduce emergency exhaust shaft size.
- Install forcible entry door at exterior access point(s)
- Remove steel heat shield protection at ceiling above prop
- Extend high temperature lining protection at ceiling and walls

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:

Owner'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: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
 - 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:

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.

END OF SECTION

SECTION 09 97 13

HIGH-TEMPERATURE PAINT

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. This Section includes surface preparation and application of high-temperature-resistant paint to all exposed metal surfaces within the shown live fire burn rooms/areas of the multi-story, Fire Training Structure. Surfaces include, but are not limited to the following:
 - 1. Hollow metal doors and frames
 - 2. Hollow metal window frames
 - 3. Exposed interior and exterior metal
 - 4. Exposed steel framing and steel members.

1.02 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Product Data: For each paint coating system specified.
 - 1. Manufacturer's Information: Manufacturer's technical information, including preparation and application.
 - 2. Certification by the manufacturer that the product supplied complies with local and State of California regulations controlling the use of VOCs.
- C. Samples for Initial Selection: Manufacturer's standard color charts showing the full range of colors available for type of finish-coat material indicated.

1.03 QUALITY ASSURANCE

- A. Applicator Qualifications: An experienced applicator who has experience in the application of completed high-temperature-resistant painting of applications similar in material and extent to that indicated for the Project and with a record of successful in-service performance.
- B. Source Limitations: Obtain primers and undercoat materials for each coating system from the same manufacturer as finish coats.
- C. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project of scope of work.

1.04 WARRANTY

- A. High temperature lining systems shall have a carry a full manufacturer warranty against defects or failures for a period of not less than ten (10) years from the date of project acceptance.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the Project site in the manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
 - 1. Add other requirements to suit specific Project circumstances.
 - 2. Product name or title of material.
 - 3. Product description (generic classification or binder type).
 - 4. Manufacturer's stock number and date of manufacture.
 - 5. Contents by volume, for pigmen and vehicle constituents.
 - 6. Application instructions.
 - 7. Color name and number.
 - 8. VOC content.
 - 9. Handling instructions and precautions.
- B. Store materials not in use in tightly covered containers in a well-ventilated area, protected from sunlight and weather, at a minimum ambient temperature of 50 deg F and a maximum ambient temperature of 100 deg F. Maintain storage containers in a clean condition, free of foreign materials and residue.
 - 1. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure workers and work areas are protected from fire and health hazards resulting from handling, mixing, and applying coatings.

1.06 PROJECT CONDITIONS

- A. Manufacturer's Written Recommendations: Comply with manufacturer's written recommendations for optimum temperature and humidity conditions for applying and curing high-temperature-resistant coatings. Do not apply coatings until these conditions have been attained and stabilized.
- B. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85%; at temperatures less than 50 deg F above dew point; or to damp or wet surfaces.
 - 1. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before proceeding with coating operation.
 - 2. Coating application may continue during inclement weather only if surfaces to be coated are enclosed and heated within temperature limits specified by the manufacturer during application and curing periods.

1.07 ADDITIONAL STOCK

- A. Upon completion of work, contractor shall deliver a minimum of 10% additional product in manufacturer's sealed containers.

PART 2 - PRODUCTS**2.01 MANUFACTURERS**

- A. Manufacturers meeting the requirements of this Specification.

2.02 PAINT, GENERAL

- A. Material Compatibility: Provide primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by the manufacturer based on testing and field experience
- B. Material Characteristics: The following lists the technical data and information of the specified high-temperature resistant paint.

1. Generic Type:	Silicone
2. Finish:	Low sheen and metallic
3. Temperature Resistance:	
4. Continuous: 1,000°F (538°C)	
5. Intermittent: 1,200°F (649°C).	
6. % solids by volume:	18 (Varies with Color)
7. Viscosity	300-450 cps (Varies with Color)
8. Dry film Thickness	0.75 – 1.0 mils per coat (19-25 microns)
9. Theoretical Coverage	289 mil. Sq. ft. per gallon
10. Weight per gallon	
11. Thurmalox 270 Series, 8.8 lb (4.1 kg.)	
12. Dampney 100 Thinner, 7.1 lb (3.2 kg)	
13. Volatile Organic Compounds	420 g/l or less
- C. Colors: Provide manufacturer's standard colors for selection by the Architect.

PART 3 - EXECUTION**3.01 EXAMINATION**

- A. Examine substrates and conditions which high-temperature-resistant paints will be applied, for compliance with coating application requirements.
 - 1. Apply coatings only after unsatisfactory conditions have been corrected and surfaces to receive coatings are thoroughly dry.
- B. Coordinate primers specified in other Sections with undercoats and finish coatings specified in this Section to ensure compatibility of materials. Some high-temperature-resistant coatings will lift incompatible primers or may have poor adhesion when applied over zinc-based or baked primers.

- C. Coordination of Work: Review other Sections in which primers or other coatings are provided to ensure compatibility of total systems for various substrates. On request, furnish information on characteristics of specified finish materials to ensure compatible primers.
 - 1. Where a potential incompatibility of primers applied by others exists, obtain the following from the applicator of the primer before proceeding:
 - a. Confirmation of the suitability of the primer for the expected service temperature.
 - b. Confirmation of the primer's ability to be top-coated with materials specified.
 - 2. Notify the Architect about anticipated problems using the coatings specified over substrates primed by others.

3.02 PREPARATION

- A. Cleaning: Before applying high-temperature-resistant paint, clean substrates of substances that could impair bond. Remove oil and grease before cleaning.
 - 1. Schedule cleaning and coating application so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.
- B. Surface Preparation: Clean and prepare surfaces to be coated according to the manufacturer's written instructions for each particular substrate condition, and as specified.
 - 1. Coordination of shop-applied prime coats with high-temperature-resistant coatings is critical. See "Coordination of Work" Paragraph in "Examination" Article. If compatibility problems exist, it may be necessary to provide barrier coats over primers or to remove primer and reprime substrate.
 - 2. Provide barrier coats over incompatible primers or remove and re-prime.
 - 3. Ferrous Metal: Clean ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.
 - a. Blast-clean steel surfaces according to requirements of SSPC standard recommended by coating system manufacturer.
 - b. Treat bare and sandblasted or pickled-clean metal with a metal-treatment wash coat before priming.
 - c. Touch up bare areas and areas where shop-applied prime coats have been damaged. Wire brush, solvent clean, and touch up with the same primer as the shop coat.
- C. Material Preparation: Mix and prepare materials according to coating manufacturer's written instructions.
 - 1. Maintain containers used for mixing and applying coatings in a clean condition, free of foreign materials and residue.
 - 2. Stir materials before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain coating material before using.
 - 3. Use only the type of thinners approved by manufacturer and only within recommended limits.

3.03 APPLICATION

- A. General: Apply high-temperature-resistant paint according to the manufacturer's written instructions. Use applicators and techniques best suited for material being applied.
 - 1. Do not apply coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
 - 2. Coating colors, surface treatments, and finishes are indicated in the schedules.
 - 3. Provide finish coats compatible with primers used.
- B. Scheduling Coating: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for coating as soon as practicable after preparation and before subsequent surface deterioration.
 - 1. Number of coats and film thickness required is the same regardless of application method employed. Do not apply succeeding coats until previous coat has cured, as recommended by the manufacturer.
 - 2. When undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance. Give special attention to edges, corners, crevices, welds, exposed fasteners, and similar surfaces to ensure they receive a dry film thickness equivalent to that of flat surfaces.
 - 3. Allow sufficient drying time between successive coats to permit proper curing. Do not recoat until coating has dried so it feels firm and does not deform or feel sticky under moderate thumb pressure, and where applying another coat does not cause undercoat to lift or lose adhesion.
- C. Application Procedures: Apply coatings by spray according to the manufacturer's written instructions.
 - 1. Spray Equipment: Use spray equipment with orifice size as recommended by the manufacturer for material and texture required.
- D. Minimum Coating Thickness: Apply each coat per the manufacturer's recommended spreading rate. Minimum of two (2) coats. Provide total dry film thickness of entire system as recommended by the manufacturer.
 - 1. Each Coat a minimum thickness of 1.0 mil (25 microns)
- E. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to substrate to be coated that has not been prime coated by others. Recoat primed and sealed substrates where there is evidence of suction spots or unsealed areas in first coat to ensure a finish coat with no burn through or other defects caused by insufficient sealing.
- F. Applying high-temperature-resistant coatings by brush is not always suitable. Before specifying, consult manufacturer to determine that brush application will produce an acceptable finish coat.
- G. Mechanical Applications: Use mechanical methods to apply coating when permitted by the manufacturer's written recommendations and governing regulations.
 - 1. Where using spray application, apply each coat to provide equivalent hiding of brush-applied coats. Do not double back with spray equipment, building up film thickness of two coats in one pass, unless recommended by manufacturer.

3.04 CLEANING

- A. Cleanup: At the end of each workday, remove rubbish, empty cans, rags, and other discarded coating materials from the Project site.
 - 1. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

3.05 PROTECTION

- A. Protect work of other trades, whether being coated or not, against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by the Architect.
 - 1. Provide "Wet Paint" signs to protect newly coated finishes. Remove temporary protective wrappings provided by others to protect their work after completing coating operations.
 - 2. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces. Comply with procedures specified in PDCA P1.

3.06 COATING SCHEDULE

- A. Ferrous Metal: Provide the following coating system over ferrous-metal surfaces:
 - 1. Retain coating system below for an acrylic or alkyd organic coating over ferrous-metal surfaces subject to surface temperatures between 200 and 300 deg F (93 and 149 deg C) and exposed to weather and chemical environments. Glidden does not offer an acrylic or alkyd organic coating in this temperature range that is similar to products of other manufacturers.
 - 2. Retain coating system below for an epoxy coating over ferrous-metal surfaces subject to surface temperatures between 200 and 300 deg F (93 and 149 deg C) and exposed to weather and chemical environments. Devoe and Porter do not offer an epoxy coating in this temperature range that is similar to products of other manufacturers.
 - 3. Retain coating system below for a silicone-resin-based coating over ferrous-metal surfaces subject to surface temperatures between 800 and 1000 deg F (427 and 538 deg C).
 - 4. Silicone Based Paint: Provide two coats over a primer.
 - a. Prime Coat: Manufacturer's recommended metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.0 mils (0.508 mm).
 - b. First and Second Coats: Manufacturer's recommended silicone-based, high-temperature-resistant coating applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.0 mils (0.25 mm) for each coat.

END OF SECTION

SECTION 11 95 10**INTERIOR STRUCTURAL FIRE TRAINERS****PART 1 - GENERAL****1.01 SUMMARY OF WORK**

- A. This section is to define the work associated with the removal and replacement of the existing live fire props as shown in the contract drawings.
- B. This specification defines the functional and performance characteristics of the computer-controlled interior natural gas-fueled live fire training system for the OCFA Fire Training Center in Irvine, California. Fire Training Equipment Supplier (FTES) shall be responsible for the complete provision, installation, testing and start-up of the structural live fire trainers.
- C. The purpose of the live fire trainers is to meet both the minimum requirements for the live fire training certification of entry level fire service personnel, as specified in the NFPA 1001, and advance training scenarios to provide refresher skills and meet ongoing training requirements for the seasoned veteran.
- D. Scope of Work:
 - 1. Conduct a comprehensive job walk to observe the existing live fire props, burn rooms, equipment rooms and supporting infrastructure systems.
 - 2. Provide all required reference material and product certifications with required Specification Submittal noted in paragraph 1.04.
 - 3. Provide on-going assistance in coordination and document review for all adjacent structure trades affected by the live fire prop systems including, but not limited to masonry, doors, windows and electrical.
 - 4. Provide complete review of contract documents for conflicts and coordination requirements. All discrepancies shall be identified prior to beginning of construction.
 - 5. Permits for project will be secured by the General Contractor for the approved plans and specifications. Any additional agency required permits for prop installation and systems, if required by the City of Irvine shall be the responsibility of the Fire Training Equipment Supplier (FTES).
 - 6. Extend interior infrastructure from existing point(s) of connections within the live fire prop equipment rooms to proposed live fire systems including, but not limited to natural gas, electrical power, conduits for system automation and controls. All new exposed conduits and piping shall be rigid type and painted.
 - 7. Provide and install fully-integrated natural gas fired props as listed in Paragraph 2.01.D of this Section.
 - 8. Provide and install fully-integrated emergency exhaust ventilation system and exhaust shaft mounted fan unit to serve multiple floors. Refer to plans
 - 9. Provide and install system control and diagnostic control units for each fire trainer.
 - 10. Provide complete testing and certification of each fire trainer.
 - 11. Provide manuals and training for each fire trainer and system diagnostics.
 - 12. Provide system and equipment maintenance for designated period listed in Paragraph 3.01.H.

1.02 RELATED SECTIONS

- A. Section 09 97 13: High Temperature Paint
- B. Section 11 95 11: High Temperature Lining Systems
- C. Section 11 95 13: Smoke Distribution System

1.03 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Product Data: For each gas fired prop and affiliated equipment as indicated.
- C. Product and Material Certifications: For all equipment and systems provide certification of compliance with state and local agencies including, but not limited to; Underwriters Laboratory (UL), National Fire Protection Agency (NFPA), National Electrical Manufacturer's Association (NEMA), American Society for Testing and Materials (ASTM), American Concrete Institute (ACI), etc.
- D. Shop Drawings: Include; plans, elevations, sections, details, and attachments to other Work and to building structure.
- E. Installer Certificates: Signed by the system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install system.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified third party testing agency, for components of system
- G. Warranties: Warranties specified in this Section
- H. Inspection Report: Final inspection acceptance and start-up report signed by system vendor certifying completion and proper working order.
- I. Training Information: Provide training course outline of goals and materials to be covered.

1.04 INSTRUCTIONS

- A. Each bidder acknowledges that he or she has carefully read the included specifications and examined all documents for the equipment requested prior to submitting an offer. All offers shall be in compliance with current codes and standards for this type of equipment. Current codes shall supersede errors in specification.
- B. The performance standards of the live fire trainers set forth in these specifications are the minimum acceptance without exception. Equivalent substitutions will be considered if in compliance with this Specifications Section. Contractor assumes full responsibility to provide alternate products or materials as specified for any items deemed unacceptable as a submitted substitution.

- C. The work to be included in this proposal consists of the furnishing of all labor, materials, equipment, tools, and services, and all costs related for installation of natural gas fired training props within the existing concrete and masonry training building. Any cost that may be necessary to complete the work, in accordance with the specifications and drawing documents, shall be furnished by the vendor at no additional cost to the owner.
- D. All equipment utilized shall conform to all applicable codes and standards. All electrical equipment/components shall be UL approved electrical control equipment. All State and Local code requirements shall be observed and adhered to.
- E. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

1.05 QUALITY ASSURANCE

- A. Qualifications: Fire Training System Supplier must be a qualified company that possesses the following requirements. Failure to comply with requirements may be cause for rejection.
 - 1. Company history including all business names that the company has offered live fire training equipment under. The history must include any and all business names (including acquisitions) that the company has done business as (DBA). Demonstrated experience in coordination, design, installation and training of computerized environment training systems using natural gas fuel for interior applications as specified.
 - 2. Company history including a minimum of ten (10) years offering computerized live fire training systems utilizing natural and natural gas fuels.
 - 3. Five (5) Customer References of completed projects, which are of equal or greater size, utilize computer controls and natural gas a fuel source. Must use form provided in section 3.04.
 - 4. A complete history of any accidents or incidents, whether they resulted in injury or not, that occurred within or around a training unit produced by the manufacture offering the equipment. Failure to include all incidents, including operator error or system failures, will be considered non-responsive and may result in rejection. The list shall include any and all equipment produced under any business name (including acquisitions) that the company has done business as (DBA).
 - 5. Written documentation of the equipment certification for the completed live fire training equipment offered:
 - a. Certification by a Nationally Recognized testing Laboratory (NRTL) (Dated within 12 months of contract award) in compliancy to UL 508A, NFPA 54, 58, 86, and 1402. The NRTL must meet the requirements of OSHA 29 CFR 1910.7.
 - b. A compliancy letter from an Independent Engineering firm of a completed safety analysis and flame failure analysis of the operational system. The FTA and FFA must be in compliancy with MIL-STD 882D at a minimum.
- B. Trainer equipment shall be designed and installed in accordance with the latest version of the following standards:
 - 1. NFPA 54: Fuel Gas Code
 - 2. NFPA 70: National Electrical Code
 - 3. NFPA 1402: Guide to Building Fire Service Training Centers
 - 4. NFPA 86, the Standard for Ovens and Furnaces, Sixteenth Edition
 - 5. UL 508A, the Standard for Industrial Control Equipment.
 - 6. ANSI Z21 & 83: Series Standard for Gas Utilization Equipment

- C. Live structural fires shall be compliant and meet the criteria for training as specified in the following NFPA manuals:
 - 1. NFPA 1001: Standard for Fire Fighter Professional Qualifications
 - 2. NFPA 1403: Standard on Live Fire Training Evolutions
 - 3. NFPA 1500: Standard on Fire Department Occupational Health & Safety.
- D. All work performed at the construction site shall be by qualified personnel licensed to perform applicable work in the State of California, with a current City of Irvine business license, and shall maintain current insurance in accordance with OCFA and the City of Irvine requirements.

1.06 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of not less than five (5) years after the final system training and acceptance date. Provide a replacement part for any part that fails in normal use.
- B. The Fire Training Equipment Supplier shall provide a customer service telephone number that can be used by the Owner 24 hours per day, 7 days per week. Responses to initial call must be made within 24 hours by the FTES's customer service department.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable manufacturers for the provision and installation of the live fire interior fire trainers are listed below. The Basis-of-Design is the following product model and manufacturer:
 - 1. Structural Fire Trainer Model "Raven" as manufacturer by:
FireBlast451, Inc., 545 Monica circle, Corona CA 92880
 Telephone (800) 716-1977
 Website: www.fireblast.com
 - 2. Structural Fire Trainer Model "T-1000" as manufacturer by:
KFT, Inc., 17 Philips Parkway, Montvale, NJ 07645
 Telephone (201) 300-8100
 Website: www.kiddeft.com
 - 3. **BullEx® Inc.** 20 Corporate Circle, Albany NY 12203.
 Telephone (518) 689-2023.
 Website www.bullex.com .
 - 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to published date of bid for review and consideration by OCFA and the architect.
- B. The live fire training system for the facility shall consist of multiple gas fired props as listed within the table 2.1 below. Refer to approved contract drawings for additional information describing the locations of props.

C. Table 2.1 listing prop description and location:

FIRE TRAINING STRUCTURE – Bldg. 2			
FLOOR	PROP LOCATION	DESCRIPTION	PROP EQUIPMENT ROOM LOCATION
1	1 ST FLOOR KITCHEN FIRE	Kitchen Fire Prop with Flare-Up	Existing 1 st Floor Prop Equip. Room
2	2 ND FLOOR BEDROOM FIRE	Double bed mock-up fire	Existing 2 nd Floor Prop Equip. Room
2	2 ND FLOOR CEILING FLASHOVER FIRE	Ceiling Flashover/Rollover to extend over stairwell	Existing 2 nd Floor Prop Equip. Room
2	2 ND FLOOR EXTERIOR BBQ BALCONY FIRE	Small free-standing BBQ fire mounted in existing balcony	Existing 2 nd Floor Prop Equip. Room
3	3 RD FLOOR OFFICE FIRE PROP WITH ROLLOVER	Office Fire desk prop with Ceiling Flashover/Rollover	Existing 3 rd Floor Prop Equip. Room

D. General Prop Descriptions:

1. Office Fire with Extension
 - a. Office fire shall simulate a commercial desk fire within an office environment. The fire structure shall consist of a single desk unit with integral burners as the base fire.
 - b. The extension fire, or secondary fire shall be an overhead ceiling rollover fire intended to extend beyond the shown low office wall which can be seen as one enters the room.
 - c. The flames from the desk and shall extend to the ceiling and also capable of rolling toward the firefighters.
 - d. Desk Fire prop shall utilize the water bath technology for the fire. Pans within the mock-up shall have integral drain valves for easy servicing.
 - e. The Ceiling Rollover fire shall operate independently or concurrently with the office desk and extension fire below. The flame of the rollover shall extend toward the north wall
 - f. Upon initialization by the operator, smoke shall be emitted and the fire shall begin to grow according to parameters selected by the instructor at the scenario control panel. The fully involved fire shall reach to the underside of the ceiling approximately six feet above the mockup and shall cover the majority of the desk surface

2. Kitchen Fire with Flare-Up or Concealed Fire in cabinet :
 - a. The kitchen fire shall simulate a class B grease spill fire and a class A countertop fire. The fire structure shall consist of a mockup of a kitchen countertop with a range top at one end. Class A and B fires shall be simulated simultaneously.
 - b. The kitchen fire shall have a flare-up feature incorporated whereby in the event that the firefighter discharges water at the prop, the automatic sensor ignites a flare-up up feather simulating that of a common grease fire.
 - c. As an alternate the kitchen range-top fire shall be designed for automatic flame-spread to concealed cabinet fire above the countertop. The control system shall allow the selection of the start point of the fire, flame-spread sequence, and flame spread as selected by the operator. The concealed fire shall consist of an overhead kitchen cabinet with an internal flame element controlled through the prop control system. The flame can be initiated independent of the range fire or as part of the automated fire extension simulation.
 - d. Upon initialization by the operator, smoke shall be emitted and the fire shall begin to grow according to parameters set by the instructor at the scenario control panel. The fully involved fire shall reach the ceiling and shall cover the majority of the countertop area.
3. Bedroom Fire with Extension Ceiling Flashover:
 - a. The bedroom fire shall simulate a typical residential bedroom fire. The fire structure shall consist of a small double bed mockup
 - b. The structural training fire shall be designed for automatic flame-spread to overhead ceiling flashover . The control system shall allow the selection of the start point of the fire, flame-spread sequence, and flame spread as selected by the operator.
 - c. The Ceiling Rollover fire shall operate independently or concurrently with the bedroom fire below. The flame of the rollover shall extend toward and over western stairwell interior wall. Refer to plans
 - d. Upon initialization by the operator, smoke shall be emitted and the fire shall begin to grow according to parameters selected by the instructor at the scenario control panel. The fully involved fire shall reach to the underside of the ceiling approximately six feet above the mockup and shall cover the majority of the desk surface
4. Balcony BBQ Fire:
 - a. The balcony BBQ fire is to replicate a small fire which flames can be seen from the exterior of the structure. It shall consist of a free-standing BBQ mockup with integral burner assembly.
 - b. The balcony BBQ fire shall be capable of operating independently via the wireless control.
- E. The live fire prop system shall utilize a direct wired industrial personal computer (PC) for operator/trainer interface. The PC based system shall include the ability to integrate additional props in future expansions. PC controller shall have the capability of wireless connectivity to the master control.
- F. The system shall include a programmable logic controller (PLC) for each prop equipment room control rack. The PLC shall monitor all safety devices and operational controls while recording and archiving message logs and event data. The PLC shall be programmed to place the system in fail safe shut down in the event of safety device activation, manual E-stop depressed or system inaccuracy.

- G. The burn props shall be constructed of corrosion resistant steel. The props must be factory tested prior to delivery. Each burner must include stainless steel pilot and burner assemblies.
- H. The system shall include a smoke generation machine capable of up to 10,000 cubic feet per minute (cfm) distribution minimum. The smoke generation system shall be operated from the wireless or fixed pendant controller. The unit must provide the operator the ability to vary discharge duration and intervals between cycles from the main control unit without the use of any external equipment.
- I. The system shall include a gas detection unit that is based on infrared absorption principle incorporating a heated double-compensated optical bench (2 lamps, 2 detectors) with non-focusing optics design in two locations. The sensor must be temperature compensated and able to operate within an ambient temperature range of -40°F to 150°F and within ambient humidity conditions of 0 to 100%. Optics and electronics shall be hermetically sealed.
 - 1. The gas detection units shall verify a safe atmosphere within the burn room prior to and during all burn operations. The system shall verify a safe atmosphere prior to system operation. These units shall be interlocked with additional safety features.
 - 2. The gas concentration levels must constantly be displayed on the industrial computer and the operator mobile Touch Panel device screen.
 - 3. The systems shall be preset to a 10% Lower Explosive Level (LEL) warning level and 25% LEL alarm and shut down. A purge cycle shall then activate automatically. The gas monitoring unit features are interlocked to gas delivery and exhaust fan systems. An audible and visual alarm is activated during all elevated LEL conditions.
- J. Each burn prop room shall include temperature monitoring. Constant temperature monitoring shall exist whenever power is supplied to the system. Temperature sensors shall be located 60-inches above the finish floor level and initiate warning and automatic compartment ventilation at predetermined levels within the PLC program.
 - 1. Training room temperature activation shall occur when the room temperature reaches 450°F 60-inches above the floor level. The system shall activate the ventilation system and display on the PC and MTP a color indicator that represents to the operator that an over temperature shut down is approaching.
 - 2. Training room temperature shutdown shall occur when the room temperature reaches 500°F 60-inches above the floor level. The systems shall activate an emergency shut- down. All gas delivery system functions and smoke machine operation must cease. A full cycle purge shall then activate automatically through interlocks in the safety system and provide compartment ventilation until the temperature is reduced below the warning point.
- K. The system shall include an exhaust ventilation system. The exhaust system shall be designed to remove heat and by product of combustion from the training environment. The system design shall provide for a compartment air exchange every 60 seconds. The system shall be programmed upon start up of the equipment, the facility shall begin to exchange air and establish a safe training environment. Upon a system safety fault (over temperature, high gas level, system malfunction status) or manual activation of an emergency stop, automatic activation of the exhaust system shall initiate. The purge cycle shall continue until predetermined safety levels have been reached and reset. Safety reset parameters shall insure that a complete air exchange is provided prior to reactivation of the training equipment. This system shall include fan controls.

- L. Independent constant monitoring of flame propagation at each pilot burner shall be supplied. The pilot burner shall be designed to be inextinguishable. In the event that there is a failure of adequate pilot flame production, the fuel delivery system and all inline safety valves, shall close. Display status messaging shall activate on the industrial computer and the mobile Touch Panel device. The fuel delivery system shall be installed within a ULI approved cabinet. The fuel delivery system shall be equipped with fail-safe, safety shutoff valves that are UL listed and FM approved for gas use. A proof of closure switch and position status shall be included on all prop valves. The gas valve train shall include a secondary safety valve for all operational valves per NFPA 86. All gas pipe installation shall be compliant with NFPA 54 and 58. The fuel delivery system shall utilize stainless steel piping.
- M. All electronic components shall be UL approved for the application in which they are utilized. Control panels shall be designed, manufactured and certified to UL 508A compliancy. The NEC (NFPA 70) shall be utilized for all electrical installations.
- N. All live fire props shall be controlled via Wireless Remote Pendant Controller. The controller at minimum, must include the following functions and visual display features:
 - Dead Man Activation
 - E-stop
 - Burner enable
 - Pilot and burner flame activation
 - Flame Intensity Control
 - Smoke Generation
 - Flame Pause and Control
 - System Reset
 -
- O. The system shall include multiple levels of operator password protection. Each level shall provide varied levels of operator access. The system administrator level shall allow access by the fire agency to create and assign training officers to the varied levels of system operation.
- P. The system shall include data tracking and system monitoring of all system functions. Functions stored shall include operator commands as well as PLC functions and safety device inputs. Recording of data must include password logging, event messaging, system messaging, alarm messaging, operator display notes, run timers and counters and fault counters. All operation events shall be stored for retrieval. The information shall be stored in the hard drive of the operating system in addition to a compact flash card that can be removed for data retrieval. The information shall be viewable from the main operator control screen at any time by selecting the appropriate icon on the Windows® based operational screen.

Information shall be tracked by time, date, event, action and operator. Each log shall be designated by a number for file retrieval. The system shall integrate the data tracking within the industrial operating system and not require the use of additional external equipment for data removal, viewing or storage.
- Q. The operating system must have remote access capabilities. The FTES shall include the ability to conduct a remote diagnostic program for internet servicing and system upgrades as they are available.

- R. Walls and ceilings within burn rooms and areas shall be protected with high temperature lining systems specified elsewhere in these specifications. Thermal lining is rated to withstand temperatures in excess of 2000°F and thermal shock from the continuous heating and cooling typically found in live fire training exercises.
- S. Training fires and effect fires shall be instructor controlled. The control system shall, however automatically monitor all trainer safety systems, and shall stop all training fires and begin building ventilation as appropriate for the specific safety system alarm or malfunction.

2.02 SYSTEM SPECIFICATIONS

- A. Electrical Supply: As shown on Drawings.
- B. All components in this system shall perform to the following minimum standards:
 - 1. Compartment Equipment:
 - a. Temperature: 32 deg F to max. (Operating); -20 to 125 deg F (Storage)
 - b. Humidity: 0 to 100 percent
 - 2. Mechanical: All training compartment equipment shall withstand direct hose pressure of 100 PSI at 100 GPM from a distance of three feet.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. The fire training equipment supplier (FTES) shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- B. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- C. The fire training equipment supplier (FTES) shall provide and extend natural gas supply from the existing gas shut-off valve within the prop equipment room to the point of connection of the new fire training equipment.
- D. The fire training equipment supplier (FTES) shall provide and extend electrical service from existing prop equipment junction box within the prop equipment room to the point of connection of the new fire training equipment. Existing electrical conduits between electrical panel and prop system controls may be used. All other power and conduit required for proper control and operation shall be provided by the FTES.
- E. The fire training equipment supplier (FTES) shall employ a licensed mechanical engineer to calculate and verify required exterior ventilation louvers based on room size and use. Existing louvers within noted burn rooms may be reused or replaced as required to meet the calculated requirements. FTES shall provide and install the additional or replacement louvers.

- F. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- G. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- H. The base contract shall provide a minimum of five (5) years for semi-annual maintenance, for a total of ten (10) site visits. This maintenance does not serve as a substitute for the operational and preventive maintenance that is to be performed by the Owner. This maintenance shall be performed quarterly starting six (6) months after the date of Owner acceptance.

3.02 START-UP AND TRAINING

- A. Conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- B. Provide a minimum of two (2) 1-day operator's training courses for up to eight (8) OCFA Fire facility staff members. Each 1-Day course shall include at a minimum the following:
 - 1. Overview of each prop system and its functions
 - 2. Review of manuals and Equipment literature
 - 3. Complete Hands-On Live Fire Prop Operation
 - 4. Daily, weekly and monthly maintenance.
 - 5. Basic troubleshooting
 - 6. Equipment replacement such as burners, sensors and devices.
 - 7. What to do when system fails

3.03 FINAL CLEANING AND CLOSE-OUT

- A. Provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- B. Contractor shall clean all areas of work free of debris and materials.
- C. Fire training equipment shall be cleaned using approved cleaning materials prior to training.

3.04 REFERENCES**Customer References**

The Fire Training Equipment Supplier (FTES) must utilize this form to supply customer references as described in paragraph 1.06.A.3. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name:	
Address:	
Contact name:	Contact phone #:

Model name/number:	Delivery date:
Type of equipment:	Number of props:

List all props installed including options:

Prop #1	Prop #2	Prop #3	Prop #4	Prop #5
Prop #6	Prop #7	Prop #8	Prop #9	Prop #10

NRTL certifying agency:	Yes	No	Contact Name:	Contact Number:
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END OF SECTION

SECTION 11 95 11**HIGH TEMPERATURE LINING SYSTEMS****PART 1 - GENERAL****1.01 SUMMARY**

- A. This section is to define the work associated with the removal and installation of the high temperature lining system required for the protection of the existing concrete masonry walls.
 - 1. Removal all existing High Temperature Lining systems within the Strip Mall building per contract drawings. Material may be reused if undamaged in accordance with this section.
 - 2. Removal of High Temperature Lining Systems within the Training Tower building per contract drawings. Material by be reused if undamaged in accordance with this section.
- B. The installation of the specified high temperature lining systems shall include all associated work required for proper installation including, but not limited to attachments to walls and ceilings, metal support framing infrastructure and coordination with disciplines of adjacent work shown in the Multi--Story Training Structure (Building 2).
- C. Work in This Section includes the following:
 - 1. Removal of existing High Temperature Lining system on walls and ceilings.
 - 2. Reinstallation of undamaged panels where applicable.
 - 3. Installation of High Temperature Lining Panels on Walls
 - 4. Installation of High Temperature Lining Panels of Ceilings
 - 5. Installation of High Temperature Lining at wall openings. Refer to details.
 - 6. Installation of Cold Formed metal framing and furring for the support of High Temperature lining panels.
 - 7. Full-Height protective wall angles for all outside corners of lining material.
- D. Work to include full coordination of installation with interior Live Fire prop installation specified elsewhere for the Multi-Story Fire Training Structure. Coordination to include installation schedule, equipment and system infrastructure openings and attachments.
- E. Concrete refractory tiles, or metal lining systems will not be accepted.

1.02 RELATED SECTIONS

- A. Section 03 30 00 Cast in Place Concrete
- B. Section 09 97 13 High Temperature Paint
- C. Section 11 95 10 Interior Structural Fire Trainers.

1.03 WARRANTY

- A. High temperature lining systems shall have a full manufacturer warranty against defects or failures for a period of not less than ten (10) years from project acceptance.

1.04 REFERENCE

- A. NFPA 1403: Standard on Live Fire Training Evolutions
- B. NFPA 1500: Standard on Fire Department Occupational Health & Safety

1.05 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Product Data: Material product and performance data and installation accessories.
- C. Shop Drawings: Provide complete drawings showing;
 - 1. Floor plans of each live fire prop room/area within training tower structure.
 - 2. Wall elevations receiving high temperature lining protection.
 - 3. Ceiling plans of each live fire prop/area within training tower structure.
 - 4. Installation details of framing, corners protection, openings etc.
- D. Samples: Provide samples of material, framing accessories and wall angle protection: Sample size to be a minimum of four inches by four inches square (4" x 4").
- E. Product test and certifications information showing temperature protection.
- F. Warranty and Maintenance manuals.

1.06 QUALITY ASSURANCE

- A. Employ only installers familiar with the application and installation of high temperature lining materials for fire training buildings.
- B. Installers must have a minimum of five (5) years experience in the provision and installation of high temperature lining systems.
- C. Provide full product data and certification certifying product for application and performance specified herein.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Stack panels flat to prevent sagging.

1.08 PRODUCT MAINTENANCE

- A. Provide written instructions for the proper required maintenance and replacement of high temperature panels.

1.09 ADDITIONAL PRODUCT

- A. Upon completion of installation, contractor shall provide to the owner in manufacturer packaging a minimum of the following additional materials
1. Five (5) full size high-temperature lining panels (24" x 48" or 24" x 24")
 2. Five (5) high temperature battens. (3-3/4" x 48")

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:
1. High Temperature Lining Panels
 - a) WHP Training Towers: 9121 Bond, Overland Park, Kansas 66214, Telephone (800) 351-2525, FAX (913) 385-7078 Website: www.trainingtowers.com
 - b) FireBlast Global: 545 Monica Circle, Corona, California 92880, Telephone (951) 221-8976: Website: www.fireblast.com
 - c) Approved Equivalent: Equivalent provider to submit qualifications, product data and certifications a minimum of ten (10) days prior to bid for review and acceptance by the city.
 2. Cold Formed Galvanized Framing and Furring:
 - a) Cemco Systems.
 - b) Dietrich Industries, Inc.
 - c) Western Metal Lath & Steel Framing Systems.
 - d) Approved Equivalent

2.02 HIGH TEMPERATURE PANELS & BATTENS

- A. Proprietary Thermal **Wall & Ceiling** Liner Panels: Comply with the following:
1. Basis of Design: WHP "Super Padgenite™ HD", or Fireblast Thermalblast™
 2. Weight: Maximum system weight including panels, battens and framing shall not exceed 10 lbs/SF.
 3. Core: Minimum one (1) inch thick, consisting of calcium silicate, reinforcing filler and natural organic fiber.
 4. Panel Size: 24" x 24" (Minimum)
 5. PCF Density: 65 PCF.
 6. Compressive Strength 5,500 psi
 7. Flex Strength: 1,400 psi.
 8. Continuous Service Temperature: 2,000° F.
 9. K-factor: 1.92 at a mean temperature of 800° F.
 10. Waterproofing: 2-part process on all sides
 11. Location: Refer to Schedule paragraph 3.02 of this section, and drawings.
- B. Proprietary Thermal **Batten** Panels: Comply with the following:
1. Basis of Design Product: WHP "Padgenite I" or Fireblast Thermalblast™
 2. Core: Minimum one (1) inch thick, consisting of calcium silicate, reinforcing filler and natural organic fiber.
 3. Batten Size: 3-3/4" x 48"
 4. PCF Density: 46 PCF.
 5. Flex Strength: 800 psi.
 6. Continuous Service Temperature: 1,200° F.
 7. K-factor: 0.81 at a mean temperature of 800° F.
 8. Waterproofing: 2-part process on all sides

2.03 PROTECTIVE TRIM ACCESSORIES

- A. Interior Galvanized Metal Trim: ASTM C 1047.
 - 1. Material: Aluminum, Galvanized or aluminum-coated steel.
 - 2. Shapes as follows:
 - a. 2" x 2" Full-Height Corner Protection: Use at all outside corners within burn room areas and adjacent spaces.
 - b. 18-gauge trim channels at all doors and windows in burn areas.

2.04 AUXILIARY MATERIALS

- A. General: Provide all auxiliary materials for installation and attachment of thermal panels in accordance with the published guidelines for "**Installation of Padgenite® Panels and Accessories**" provided by WHP Training Towers as the basis for installation.
- B. Galvanized Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
 - 1. Use #8 x 3/4" HWH T-2 Tek screws complying with ASTM C 954 for fastening panels to steel members.
 - 2. Use 2-1/4" "Tapcon" concrete anchors for attachment CMU walls
 - 3. Use 5/8" S-12 screws for attaching angles.

2.05 METAL FRAMING AND FURRING

- A. Carrying Channels: Cold-rolled, commercial-steel sheet with a base metal thickness of 18-gauge, a minimum 1/2-inch- wide flange, with manufacturer's standard corrosion-resistant zinc coating or hot-dipped galvanized.
- B. Furring Channels: Commercial-steel sheet with ASTM A 653/A 653M, G40, manufacturer's standard corrosion-resistant zinc coating or hot-dipped galvanized.
- C. 18-gauge Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch deep. Minimum Base Metal Thickness: 0.0179 inch.
- D. Resilient Furring Channels: 3/4-inch deep members designed to reduce sound transmission. Configuration: Asymmetrical, with face attached to single flange by a slotted leg
- E. Fasteners: Battens attached with #6 x 1-7/8" Tek fasteners. Panels attached with #8 x 3" Tek fasteners with 1/4 x 1-1/4" flat washers.

2.06 EXISTING HIGH TEMPERATURE LINING SYSTEM REUSE

- A. For purposes of bidding, contractor may assume that twenty-five percent (25%) of the existing high temperature lining panels may be reused. Panels shall be removed and reinstalled with the backside facing the burn room to appear as like new condition.
- B. For purposes of bidding, contractor may assume that fifty percent (50%) of the existing high temperature lining framing may be reused in all applicable areas.
- C. Contractor shall be responsible to supplement existing systems portions to be reused in order to provide a complete and safe interior environment for the use of live fire props. Supplements may include, but not be limited to: additional new high temperature panels, new additional wall framing and connectors, and new additional ceiling framing.

PART 3 - EXECUTION**3.01 GENERAL REQUIREMENTS**

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. Prior to shipping the system and equipment to the site, an inspection team from the high temperature lining supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The high temperature lining system supplier shall be responsible for all costs associated with shipping and storage of their equipment and materials.
- C. The high temperature lining system supplier shall provide five (5) copies of the manufacturer's Maintenance Manual to the OCFA. The manual shall fully describe the delivered system and shall include sections on troubleshooting, maintenance, associated diagrams and drawings.
- D. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 EXAMINATION

- A. Bidding contractor shall fully observe all locations where high temperature lining systems are to be installed as well as removed. Drawings depict information based on existing As-Built plans which may or may not reflect actual field conditions which have been modified. Contractor shall notify architect and owner in writing of any discrepancies affecting installation of work.
- B. High Temperature lining contractor to conduct meeting at site to examine all areas and substrates to receive the thermal liner, with Installer and fire training prop supplier present, to discuss and coordinate scope of work between the two entities. verify completeness of work and coordination of installation process requirements with all disciplines.
- C. Coordinate requirements of adjacent trades and disciplines.
- D. Notify architect of any discrepancies that would affect the proper installation of the thermal lining material. Proceed with installation only after unsatisfactory conditions have been corrected.
- E. Proceed with installation of thermal lining materials only upon verification that all discipline trade work adjacent to area has been completed and will not require removal and re-installation of panels.

3.03 SCHEDULE OF THERMAL LINING LOCATIONS:

- A. **One-Story Strip Mall Training Structure:** Within the strip mall building there exists one (1) existing burn room with wall and ceiling high temperature lining systems to be removed. These products and materials may be reused in noted locations of the multi-story fire training structure listed in 3.02.B.

- B. Multi-Story Training Tower Structure:** Within the multi-story tower building there exists three (3) existing burn rooms with wall and ceiling high temperature lining systems to be removed. These products and materials may be reused in noted herein.

Room	Walls	Ceilings	Notes
1st Floor Kitchen Fire Prop	North Wall East Wall South Wall	Partial Ceiling Area (Refer to Reflected Ceiling Plan)	
2nd Floor Bedroom Fire Prop	East Wall South Wall Partial West Wall	Partial Ceiling Area (Refer to Reflected Ceiling Plan)	*Refer to interior details for protection at stairwell
2nd Floor Flashover Prop	Partial West Wall	Partial Ceiling Area (Refer to Reflected Ceiling Plan)	*Refer to interior details for protection at stairwell
2nd Floor Exterior BBQ Prop	East Wall South Wall Exterior Face of Wall per plans	Entire Ceiling Area of Balcony	Refer to plans for locations and extent.
3rd Floor Office Fire Prop	East Wall South Wall West Wall New north wall (+72")	Partial Sloping Ceiling Area* (Refer to Reflected Ceiling Plan)	

3.04 INSTALLATION OF HIGH TEMPERATURE WALL LINING

- A. Install wall grid system using metal furring and framing system in strict accordance with the guidelines provided by the product manufacturer.
- B. Install high temperature wall battens to framing in accordance with guidelines provided by the product manufacturer. Direct attachment of panels and battens to the structure is not permitted.
- C. Install trims and accessories including protective wall edges and trims.

3.05 INSTALLATION OF HIGH TEMPERATURE CEILING LINING

- A. Install ceiling grid system using metal furring and framing system in strict accordance with the guidelines provided by the product manufacturer.
- B. Install high temperature ceiling battens to framing in accordance with guidelines provided by the product manufacturer. Direct attachment of panels and battens to the concrete structure is not permitted.
- C. Coordinate installation with live fire prop vendor and trade disciplines for all locations. Coordination to include, but not limited to:
 1. New construction applications
 2. Ceiling fire applications at stairwell
 3. Existing ceilings and openings.
 4. Existing wall and openings.

3.06 INSTALLATION OF HIGH TEMPERATURE WALL & DOOR PROTECTION

- A. For Fixed windows at 2nd floor bedroom fire: Span opening with typical framing materials and install full lining system over window unit creating uniform wall and opening protection.
- B. For Doors affected by live fire heat; Affix single layer of Padgenite material to interior face of door unit. Notch at hardware and at hinge side to allow proper operation. Interior lining system to wrap and protect door frame. Refer to project details.

3.07 CLEANING AND PROTECTION

- A. Upon completion of work, properly dispose of all trash, debris and materials.
- B. Clean all high temperature panels free from markings, dirt and smudges. Use only approved manufacturer cleaning agents on panel surfaces.
- C. Protect all panels in place for the duration of construction. Remove prior to testing and start-up of fire training simulators.

END OF SECTION

SECTION 13 00 20**EXTERIOR LIVE FIRE GAS METER PROP****PART 1 - GENERAL****1.01 SUMMARY OF WORK**

- A. General Description: The live fire gas meter prop is to simulate a flange fire atop the gas meter mock-up. The control for the ignition shall be via wireless control independent of other building live fire props.
- B. Work to include the following:
 - 1. Manufacture and install a commercial live fire gas meter training prop at the existing fire training tower where shown on drawings. Prop shall simulate a flange fire erupting from a commercial bank of meters comprised of at least three (3) meter units.
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Natural gas shut-off and piping from point of connection inside existing prop equipment room to prop control.
 - b. Wireless Control device
 - c. Conduit and wire for controls and power: Extend service from within the existing prop control room to shown prop location. Control Room to point of connection at exterior building wall to be verified by prop installer.
 - d. Coordination of installation and infrastructure requirements with discipline trades, including high temperature lining systems.
- C. Work to include full coordination with all adjacent trades. Coordination to include:
 - 1. Installation of exterior prop mock-up.
 - 2. Utility infrastructure provision from point of connection to prop
 - 3. Testing, Start-Up and training
 - 4. Protection of work in place.
- D. Related Sections:
 - 1. Division 16 00 00 General Electrical

1.02 RELATED DOCUMENTS

- A. Approved contract drawings.

1.03 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Complete Operation and Maintenance Manuals.
- C. Product literature
- D. Installation details showing required building modifications and coordination with other trades.

1.04 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of five (5) years after the final system acceptance date. If for any reason, other than misuse and abuse, the system should fail, the training simulator supplier shall provide all labor, materials and replacement parts to the Owner for the duration of the warranty period. The fire training simulator provider shall also provide a customer service telephone number that can be used by the Owner during normal business hours to report system problems.

PART 2 - PRODUCTS**2.01 MANUFACTURERS**

- A. Acceptable manufacturers for the provision and installation of the live fire interior fire trainers are listed below. The Basis-of-Design is the following product model and manufacturer:
1. **FireBlast 451, Inc.** 4131 Tigris Way, Riverside, CA 92503
Telephone (951) 277-8319
Website: <http://www.fireblast.com>
 2. **KFT, Inc.**, 17 Philips Parkway, Montvale, NJ 07645
Telephone (201) 300-8100
Website: www.kiddeft.com
 3. **Bullex® Inc.** 20 Corporate Circle, Albany NY 12203.
Telephone (518) 689-2023.
Website www.bullex.com .
 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to bidding for review and acceptance by the Orange County Fire Authority.

2.02 EQUIPMENT

- A. The burn props shall be constructed of corrosion resistant steel. The prop must be factory tested prior to delivery. The burner must include stainless steel pilot and burner assemblies.
- B. The fuel delivery system shall be installed within a UL approved cabinet. The fuel delivery system shall be equipped with fail-safe, safety shutoff valves that are UL listed and FM approved for gas use. A proof of closure switch and position status shall be included on all prop valves. The gas valve train shall include a secondary safety valve for all operational valves per NFPA 86. All gas pipe installation shall be compliant with NFPA 54 and 58. The fuel delivery system shall utilize stainless steel piping.
- C. All electronic components shall be UL approved for the application in which they are utilized. Control panels shall be designed, manufactured and certified to UL 508A compliancy. The NEC (NFPA 70) shall be utilized for all electrical installations.
- D. Training fires and effect fires shall be instructor controlled. The control system shall, however automatically monitor all trainer safety systems, and shall stop all training fires upon activation of emergency stop.

PART 3 - EXECUTION**3.01 GENERAL REQUIREMENTS**

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. The fire training system supplier shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- C. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- D. The fire training system supplier shall provide and extend natural gas supply from the existing shut off connection point within prop equipment room to the terminus point as required for operation of the fire training equipment.
- E. The fire training system supplier shall provide and extend electrical service from the existing junction box power supply within the prop equipment room to the terminus point as required for operation of the fire training equipment. All other power and conduit shall be provided by fire training system installer.
- F. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- G. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- H. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 START-UP AND TESTING

- A. Conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).

- B. Provide a minimum of two (2) 1-day operator's training courses for up to eight Orange County Fire Authority staff personnel. Each 1-Day course shall include at a minimum the following:
 - 1. Overview of each prop system and its functions
 - 2. Review of manuals and Equipment literature
 - 3. Complete Hands-On Live Fire Prop Operation
 - 4. Daily, weekly and monthly maintenance.
 - 5. Basic troubleshooting
 - 6. Equipment replacement such as burners, sensors and devices.
 - 7. What to do when system fails

3.03 TRAINING

- A. Simulator contractor shall provide a minimum of two (2) training sessions with representatives of the Orange County Fire Authority for complete system operation, maintenance and basic troubleshooting. Simulator contractor shall provide training of system operation and maintenance.

END OF SECTION

SECTION 13 00 25**EXTERIOR GAS METER PROP LEAK SIMULATOR****PART 1 - GENERAL****1.01 SUMMARY OF WORK**

- A. General Description: The gas meter leak trainer shall provide training in the safe approach, of an exterior leaking commercial gas meter.
- B. Work to include the following:
 - 1. Manufacture and install a commercial gas meter training prop at existing Strip Mall where shown on drawings. Prop shall simulate a typical commercial bank of meters comprised of at least four (4) meter units.
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Air compressor for pressurizing system
 - b. Wireless Control device
 - c. Conduit and wire for air and power: Extend service from inside existing Prop Equipment Room to point of connection at exterior building prop installer.
 - d. Coordination of installation and infrastructure requirements.
- C. Work to include full coordination with all adjacent trades. Coordination to include:
 - 1. Exterior wall construction
 - 2. Utility infrastructure provision and location
 - 3. Testing, Start-Up and Training
 - 4. Protection of new work in place

1.02 RELATED DOCUMENTS

- A. Approved contract drawings for the Strip Mall Building

1.03 SUMMARY

- A. General Description: The gas meter leak trainer shall provide training in the safe approach, of an exterior leaking commercial gas meter.
- B. Work to include the following:
 - 1. Manufacture and install a commercial gas meter training prop at existing Strip Mall where shown on drawings. Prop shall simulate a typical commercial bank of meters comprised of at least four (4) meter units.
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Air compressor for pressurizing system
 - b. Wireless Control device
 - c. Conduit and wire for air and power: Extend service at exterior of building from Control Room to point of connection at exterior building wall to be verified by prop installer.
 - d. Coordination of installation and infrastructure requirements with discipline trades.

- C. Work to include full coordination with all adjacent trades. Coordination to include:
 - 1. Exterior wall construction
 - 2. Utility infrastructure provision and location
 - 3. Protection of work in place.
- D. Related Sections:
 - 1. Division 16 00 00 General Electrical

1.04 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Complete Operation and Maintenance Manuals.
- C. Product literature
- D. Installation details showing required building modifications and coordination with other trades.

1.05 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of five (5) years after the final system acceptance date. If for any reason, other than misuse and abuse, the system should fail, the training simulator supplier shall provide all labor, materials and replacement parts to the Owner for the duration of the warranty period. The fire training simulator provider shall also provide a customer service telephone number that can be used by the Owner during normal business hours to report system problems.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable manufacturers for the provision and installation of the live fire interior fire trainers are listed below. The Basis-of-Design is the following product model and manufacturer:
 - 1. **FireBlast 451, Inc.** 4131 Tigris Way, Riverside, CA 92503
Telephone (951) 277-8319
Website: <http://www.fireblast.com>
 - 2. **KFT, Inc.**, 17 Philips Parkway, Montvale, NJ 07645
Telephone (201) 300-8100
Website: www.kiddeft.com
 - 3. **Bullex® Inc.** 20 Corporate Circle, Albany NY 12203.
Telephone (518) 689-2023.
Website www.bullex.com .
 - 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to bidding for review and acceptance by the Orange County Fire Authority.

2.02 EQUIPMENT

- A. Air Compressor: Small 110/208v, or compressed air tanks, with remote activation capability.
- B. Gas Meter mockup complete with simulated pipe fittings.

2.03 PERFORMANCE REQUIREMENTS

- A. The mockup shall consist of a gas piping assembly with an integrated commercial gas meter. The structure shall be designed to position the gas meter prop approximately 5 feet above the surface of the training area. The gas piping, near the body of the gas meter, shall be charged with air to create the simulated gas leak effect. The piping near the gas meter shall continue to leak until the operator commands the gas leak to cease in response to correct trainee techniques.

PART 3 - EXECUTION**3.01 GENERAL REQUIREMENTS**

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. The fire training system supplier shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- C. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- D. The fire training system supplier shall provide and extend electrical service from noted points of connection to terminus points as required for operation of the fire training equipment. Conduit between electrical panel and system PLC unit shall be provided by electrical contractor. All other power and conduit shall be provided by fire training system installer, unless otherwise noted on Drawings.
- E. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- F. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- G. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 INSTALLATION

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. Simulator shall be installed in accordance with manufacturer's specifications and guidelines.

3.03 START-UP AND TESTING

- A. Upon completion of installation, simulator contractor shall test system and operation.

3.04 TRAINING

- A. Simulator contractor shall provide a minimum of two (2) training sessions with representatives of the Orange County Fire Authority for complete system operation, maintenance and basic troubleshooting. Simulator contractor shall provide training of system operation and maintenance.

END OF SECTION

SECTION 13 00 40

ELECTRICAL PANEL FIRE SIMULATOR

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. General Description: The electrical panel fire simulator shall consist of two (2) primary enclosures located in close proximity as indicated on Construction Documents and specified in this section.
- B. Work to include, but not limited to the following:
 - 1. Manufacture and install a simulated commercial electrical service fire training prop at Building 43, "Apartment".
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Primary control enclosure for equipment and smoke generation
 - b. Secondary control enclosure for service distribution prop simulation
 - c. Wireless Control device
 - d. Conduit and wire for power: Extend service at exterior of building from Prop Equipment Room #110 to point of connection at exterior building wall to be determined by owner.
 - e. Coordination of installation and infrastructure requirements with discipline trades.
- C. Related Sections:
 - 1. Division 16 00 00 General Electrical

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
 - 1. Refer to drawings for exterior location at Strip Mall Building
 - 2. Refer to drawings for exterior location at Training Tower Building

1.03 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Complete Operation and Maintenance Manuals.
- C. Product literature
- D. Installation details showing required building modifications and coordination with other trades.

1.04 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of five (5) years after the final system acceptance date. If for any reason, other than misuse and abuse, a part supplied should fail, the training simulator supplier shall supply a replacement part to the Owner. The contractor will provide a toll-free customer service telephone number that can be used by the Owner during normal business hours to report system problems.

PART 2 - PRODUCTS**2.01 MANUFACTURERS**

- A. Acceptable manufacturers for the provision and installation of the Electrical Panel Fire Simulator are listed below. The Basis-of-Design is the following product model and manufacturer:
1. Structural Fire Trainer Model "Raven" as manufacturer by:
FireBlast451, Inc., 545 Monica circle, Corona CA 92880
Telephone (800) 716-1977
Website: www.fireblast.com
 2. Structural Fire Trainer Model "T-1000" as manufacturer by:
KFT, Inc., 17 Philips Parkway, Montvale, NJ 07645
Telephone (201) 300-8100
Website: www.kiddeft.com
 3. **Bullex® Inc.** 20 Corporate Circle, Albany NY 12203.
Telephone (518) 689-2023.
Website www.bullex.com .
 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to bidding for review and acceptance by the Orange County Fire Authority.

2.02 EQUIPMENT

- A. Enclosure 1 shall represent a mockup of a commercial electrical load center that is approximately 32-inches wide by 74-inches high by 9-inches deep. The commercial electrical load center shall contain the following built-in components:
1. Speakers: Produce intermittent electrical arcing and burning sounds associated with a class C fire effect.
 2. Multiple Strobe Lamps: Simulate the visual effects of electrical arcing and fire.
 3. Agent Sensor: Detect the application of water.
 4. Ventilation Louvers: Serve as smoke outlet ports.
- B. Enclosure 2 shall represent a safety disconnect switch panel that is approximately 38-inches wide by 48-inches high by 12-inches deep. This panel shall be National Electrical Manufacturer's Association (NEMA) 4 rated and shall contain the following components
1. Power Indicator: Indicates that power (120 VAC, 20 AMPS) has been applied to the simulator.
 2. Two-Position, Safety Disconnect Switch – Works in conjunction with a position sensor. The disconnect switch shall be used as an active training devise to secure simulated "POWER" to the commercial load center.
 3. Smoke Generator Assembly: Capable of a minimal smoke output of 500 CFM.
 4. Sound Generator Control System: Generate various sound effects.
 5. Wireless Control System: Used to operate the training simulator.

2.03 PERFORMANCE REQUIREMENTS

- A. The simulator shall start and stop using a small wireless transmitter.
 - 1. When started the simulator shall produce, in response to trainee action, the following visual and audio effects using multi-colored strobe lamps and sound generator:
 - 2. Simulated electrical arcing when the disconnect switch is closed. Effects shall be generated using random, intermittent activation of appropriately colored and paired strobe lamps in synchronization with sound generator.
 - 3. Simulated flame state when the disconnect switch is opened. Effects shall be generated using random, intermittent activation of appropriately colored and paired strobe lamps in synchronization with sound generator.
 - 4. Simulated audible alarm effect when agent is applied with the disconnect switch closed.
- B. Smoke shall be produced and present when the simulator is started and cease when the simulator is turned off by the operator.
- C. Simulator visual and audio effects shall change automatically in response to trainee action.

PART 3 - EXECUTION**3.01 GENERAL REQUIREMENTS**

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. The fire training system supplier shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- C. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- D. The fire training system supplier shall provide and extend electrical service from noted points of connection to terminus points as required for operation of the fire training equipment. Conduit between electrical panel and system PLC unit shall be provided by electrical contractor. All other power and conduit shall be provided by fire training system installer, unless otherwise noted on Drawings.
- E. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- F. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- G. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof.

The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 INSTALLATION

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. Simulator shall be installed in accordance with manufacturer's specifications and guidelines.

3.03 START-UP AND TESTING

- A. Upon completion of installation, simulator contractor shall test system and operation.

3.04 TRAINING

- A. Simulator contractor shall provide a minimum of two (2) training sessions with representatives of the Orange County Fire Authority for complete system operation, maintenance and basic troubleshooting. Simulator contractor shall provide training of system operation and maintenance.

END OF SECTION

SECTION 16 00 00

GENERAL ELECTRICAL

GENERAL 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 affect 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 Agency.
- 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 Agency.
- 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.
- B. In general, the electrical work as referred to herein shall consist of, but not be limited to, the items listed as follows:
 - 1. Lighting and power panels.
 - 2. Lighting power and control conduit/raceway systems.
 - 3. All conduit wiring, connections, and testing for work specified in Section 16000 of these specifications.
 - 4. Furnish and Install a 480v Distribution Panel Board.
 - 5. Furnish and Install all Required concrete footings.
 - 6. Furnish and Install all conduit and cable shown on drawings.

1.03 CODES AND STANDARDS

- A. All the equipment and materials shall conform to the latest revision of the following standards:
 - 1. American National Standards Institute (ANSI)
 - 2. Institute of Electrical and Electronic Engineers (IEEE)
 - 3. National Electrical Manufacturers Association (NEMA)
 - 4. Underwriters' Laboratories (UL)
 - 5. Insulated Power Cable Engineers Association (IPCEA)
 - 6. American Society for Testing and Materials (ASTM)
 - 7. National Electrical Code (NEC)
- 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.

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 Agency 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 COORDINATION OF THE ELECTRICAL SYSTEM

- A. The Contractor shall verify all actual equipment Protection settings with Electrical Engineer.

1.06 UTILITY COMPANY REQUIREMENTS

- A. All work for electrical power shall be performed in accordance with the requirements of the respective serving utility companies.
- B. Immediately after the award of the contract, the Contractor shall notify the serving utilities that the project is under construction and provide them with all pertinent information, including the dates on which the services will be required.
- C. The Contractor shall coordinate details and timing of and arrange for service entrance installation with the utility, provide all required temporary service, and include all utility connection fees for temporary service in his proposal. The Agency will pay for all permanent electrical services.

1.07 PERMITS AND INSPECTIONS

- A. 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 Agency, properly executed, all required certificates of final inspection and approval before the work will be accepted as complete.

1.08 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 Agency.

1.09 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.
- C. All locations exposed to weather are classified as wet locations. In this area classification, raceway shall be PVC coated rigid steel conduit; entrances shall be threaded; fittings shall have gasketed covers located at a low point to drain the fitting or conduit system. Threaded hardware shall be stainless steel. Mounting brackets shall be galvanized after fabrication. Instruments and control cabinets, panels, switchboards, and motor control centers located outdoors shall be "weatherproof." Enclosures shall be mounted with a 1/4 inch air space from walls unless otherwise noted on the plans.

1.10 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 as-built drawings are received by the Agency.
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 stub-outs 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 Agency's operating personnel for normal operational condition and utilizing names of controls as they appear on nameplates.
 - b. Calibration and maintenance instructions.
 - 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.

1.11 GROUNDING

- A. 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.

1.12 WARNING SIGNS

- A. Warning signs shall be 7 inches high by 10 inches wide, colored yellow and black, on not less than 18 gauge vitreous enameling stock.

CAUTION HIGH VOLTAGE

- 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.

1.13 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 Agency.
- 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 Agency.
- 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

- 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 which, 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.

1.14 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.

1.15 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 which are discovered during the time of this guaranty shall be repaired or replaced at no cost to the Agency. 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.

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. Jacketed 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 which corresponds with the labeled conduits in the facility.

2.03 CONDUIT FITTINGS, OUTLET AND PULLBOXES

- A. Conduit fittings shall be cast or malleable of a nonferrous metal.
- B. Jacketed 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 case of non-ferrous metal 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 smaller 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 LIGHTING FIXTURES AND LAMPS

- A. Fluorescent lighting fixtures shall be equipped with high power factor Class "P", ETL and CBM approved, sound-rated ballast. Voltage shall be as indicated.
- B. High intensity discharge fixtures shall be equipped with high power factor, constant wattage ballast and shall be fused. Voltage shall be as indicated.
- C. Fluorescent lamps shall be standard cool white except as noted. Incandescent lamps shall be extended service type, rated for 125 volts. High intensity discharge lamps shall be color corrected.

2.08 PANELBOARDS

- A. Lighting and power panelboards shall be mounted as indicated on the plans with quantity an size of thermalmagnetic molded case circuit breakers inducted 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.

2.09 RELAYS AND TIME SWITCHES

- A. Relays: Magnetically held relays shall have convertible contacts, and all relays shall be provided with one spare contract. 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.

2.10 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 indicated 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. Liquid tight, 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.

Phase	120/208 volts	277/480 volts
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 LIGHTING FIXTURES

- A. All lighting fixtures shall be cleaned and any damaged parts including lens, burned out lamps or noisy ballasts shall be replaced prior to final acceptance. All fixtures shall be properly mounted and securely supported. Pendant or suspended fixtures shall be mounted and secured in an approved manner to withstand earthquake damage. Lighting fixtures shall be effectively grounded.

3.06 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.

3.07 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.

3.08 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.

3.09 EARTHWORK

- A. Excavation and backfill necessary for proper installation of the electrical work shall conform to the provisions of the Section of earthwork in these specifications.

3.10 CUTTING AND REPAIRING

- A. 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 demolitions 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.

3.11 DISSIMILAR METALS

- A. 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.

PART 4 - FIXTURES

4.01 GENERAL

- A. The Contractor shall furnish, install and connect all fixtures in accordance with the fixture schedule, the drawings and as hereinafter specified. All fixtures shall be installed complete with lamps, all fittings and accessories, wiring and connections necessary for their complete installation and correct operation and control. All labels shall be removed from sight when viewed from below.

4.02 BALLASTS

- A. All fluorescent fixtures shall be equipped with energy saving advance Mark III Kool Koil, high-power-factor ballasts. All ballasts shall be equipped with non-resetting thermal cutouts. After installation is completed, any ballasts which are judged to be excessively noisy by the Agency shall be removed and replaced at no extra charge.

4.03 LAMPS

- A. All lamps shall be General Electric, Westinghouse or Sylvania. Type of lamp and wattage as shown on fixture schedule, on drawings or as required by the specified fixture. Incandescent lamps shall be 130 volt.

END OF SECTION

Please contact the
OCFA Clerk of the Authority Office
during regular business hours
at 714 573-6040
to obtain copies of the Plans
referenced in this attachment.

Orange County Fire OCFA

Solicitation No. 2455

EXHIBIT A: TRANSMITTAL PAGE ONE – IFB RESPONSE FORMS**TO:** Orange County Fire Authority**FROM:** GA Technical Services, Inc.

(Legal Name of Contractor)

PROJECT: Electrical Improvements at the RFOTC Drill Grounds

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 G: Schedule of Values):

BID LUMP SUM:**NUMERICAL:** \$ 410,489.60**WRITTEN:** Four Hundred Ten Thousand Four Hundred Eighty-Nine and 60/100**ACKNOWLEDGMENT OF ADDENDA:**

No.: 1	Dated: 09/08/2020	No.:	Dated:
No.:	Dated:	No.:	Dated:

BIDDER'S CHECKLIST:

Bidder certifies that the following documents are included in Bid:

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Transmittal Page (Exhibit A) | <input checked="" type="checkbox"/> List of Subcontractors (Exhibit E) | <input checked="" type="checkbox"/> Project Approach and Schedule (Exhibit H) |
| <input checked="" type="checkbox"/> Bidder's Bond (Exhibit B) | <input checked="" type="checkbox"/> Certification of Site Examination (Exhibit F) | <input checked="" type="checkbox"/> List of Past Projects References (Exhibit I) |
| <input checked="" type="checkbox"/> Certification of Bid (Exhibit C) | <input checked="" type="checkbox"/> Schedule of Values (Exhibit G) | <input type="checkbox"/> List of Current Projects (Exhibit J) |
| <input type="checkbox"/> Contractor's Licensing Statement (Exhibit D) | | |

MINIMUM QUALIFICATIONS:

Bidder Meets the Minimum Qualifications as follows:

CSLB License #: 816080 Expiration: 12/31/2020

DIR Registration #: 1000001050 Expiration: 12/31/2021

Number of Years of Experience: 18

SIGNATURE OF CONTRACTOR:**PRINTED NAME:** Frank Cervantes**TITLE:** President

EXHIBIT B: 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, GA Technical Services, Inc. as Principal ("Principal"), and Merchants Bonding Company (Mutual) as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of Iowa 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%) 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 (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 8th day of September, 2020, 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)

GA Technical Services, Inc.

PrincipalByFrank Cervantes / President
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Merchants Bonding Company (Mutual)

SuretyBy

Josefina Rojo, Attorney-In-Fact

Alliant Insurance Services, Inc.

Name of California Agent of Surety333 S. Hope St., Suite 3750, Los Angeles, CA 90071**Address of California Agent of Surety**(312) 595 - 6525**Telephone Number of California Agent of Surety**

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. 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 San Bernardino

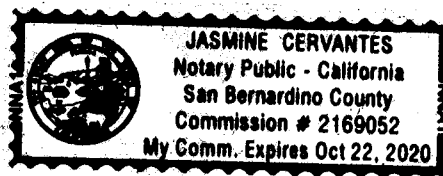
On September 09, 2020

before me, Jasmine Cervantes Notary Public

personally appeared Frank Cervantes

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

[Handwritten 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

GA Technical Services, Inc.

RIGHT THUMBPRINT
OF SIGNER
Top of thumb

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

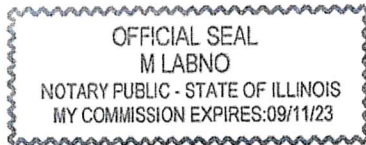
Signer is representing


RIGHT THUMBPRINT
OF SIGNER
Top of thumb

State of Illinois
County of Cook

On this 8th day of September 2020, before me personally appeared
Josefina Rojo, known to me to be the Attorney-in-fact of
Merchants Bonding Company (Mutual), the corporation that executed the
within 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
aforesaid county, the day and year in this certificate first above written.





(Notary Public)

(Seal)

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,

Merchants Bonding Company (Mutual)

of Iowa, organized under the laws of Iowa, 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, Liability, and Miscellaneous

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 1st day of October, 2015, I have hereunto set my hand and caused my official seal to be affixed this 1st day of October, 2015.



By

Dave Jones
Insurance Commissioner

Valerie Sarfaty
for Nettie Hoge
Chief 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 Insurance Code section 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.

EXHIBIT C: CERTIFICATION OF BID

In responding to IFB SK2455 RFOTC Drill Grounds Electrical Improvements, 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 Construction Services Agreement (Attachment One), 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 Attachment One.
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.
11. Bidder shall declare that the only persons or parties interested in the proposal as principals are those named therein; that no officer, agent, or employee of the OCFA is personally interested, directly or indirectly, in the proposal; that the proposal is made without connection to any other individual, firm, or corporation making a bid for the same work; and that the proposal is in all respects fair and without collusion or fraud.

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: GA Technical Services, Inc.**SIGNATURE OF CONTRACTOR:** **PRINTED NAME:** Frank Cervantes**TITLE:** President**CONTRACTOR ADDRESS:** 1226 W. 9th Street**CITY:** Upland**STATE:** CA**ZIP CODE:** 91786**IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:****NAME OF CORPORATION:** GA Technical Services, Inc.**DATE OF INCORPORATION:** 06/11/2002**PRESIDENT:** Frank Cervantes**TREASURER:** Frank Cervantes**SECRETARY:** Frank Cervantes**MANAGER:** Frank Cervantes

EXHIBIT D: 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: 816080 **CLASS:** B, C-7, C-10 **EXPIRATION:** 12/31/2020

CA DIR REGISTRATION NUMBER: 1000001050 **EXPIRATION:** 12/31/2021

CONTRACTOR TELEPHONE: (909) 981-8600 **CONTRACTOR FAX:** (909) 382-9897

BUSINESS

ADDRESS: 1226 W. 9th Street, Upland, CA 91786

LENGTH OF TIME IN BUSINESS: 18 years

LENGTH OF TIME AT CURRENT LOCATION: 5 years

NUMBER OF EMPLOYEES: 15 **NUMBER OF CURRENT CLIENTS:** 50

If the contractor operates as a sole proprietorship:

NAME OF INDIVIDUAL CONTRACTOR: N/A

SIGNATURE OF OWNER: _____

BUSINESS ADDRESS: _____

If the contractor operates under a partnership:

NAME OF FIRM: N/A

PARTNER NAME: _____ **PARTNER TITLE:** _____

PARTNER ADDRESS: _____

SIGNATURE OF PARTNER: _____

PARTNER NAME: _____ **PARTNER TITLE:** _____

PARTNER ADDRESS: _____

SIGNATURE OF PARTNER: _____

If contractor operates under a corporation:

NAME OF CORPORATION: GA Technical Services, Inc.

CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF CALIFORNIA:

 _____
SIGNATURE OF CORPORATION PRESIDENT

_____ **SIGNATURE OF THE CORPORATION SECRETARY**

September 9, 2020 **DATE**

Management person responsible for direct contact with OCFA:

NAME: Frank Cervantes **TITLE:** President

TELEPHONE: (949) 466-0737 **E-MAIL:** Frank.Cervantes@GATechServices.com

Person responsible for the day-to-day servicing of the account/project.

NAME: Frank Cervantes **TITLE:** President

TELEPHONE: (909) 681-8600 **E-MAIL:** Frank.Cervantes@GATechservices.com

EXHIBIT E: 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.**

Subcontractor Name:	N/A	Location:	
Portion of Work:		Trade:	
Bid Amount:			
Contractor's License Number:		DIR Number:	
Subcontractor Name:		Location:	
Portion of Work:		Trade:	
Bid Amount:			
Contractor's License Number:		DIR Number:	
Subcontractor Name:		Location:	
Portion of Work:		Trade:	
Bid Amount:			
Contractor's License Number:		DIR Number:	

EXHIBIT F: CERTIFICATION OF SITE EXAMINATION

Signature below certifies 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: September 3, 2020

Company Name: GA Technical Services, Inc.

Signature: _____

Printed Name / Title of Company Representative: Frank Cervantes, President

Date: 09/09/2020

EXHIBIT G: SCHEDULE OF VALUES

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.

Instructions - *Input your information in the red-outlined cells as follows:*

- Insert a description for each Line Item
- Insert the quantities for each Line Item
- Where applicable, insert the unit of measure for each Line Items (i.e. hour, each, lot, foot, etc.)
- Insert additional line items under each category as needed
- Note whether line item is taxable or non-taxable
- Calculate sales tax for all taxable items

NOTE: *Totals will calculate automatically; be sure to verify that all totals have calculated correctly*

CATEGORY I: Labor Classifications (Prevailing Wage)							
Line Item	Description	Qty (#)	Unit		Rate per Hour	Total	Taxable (Y/N)
1	Provide and trench all necessary path for several conduit bank	600.00	Hour	X	\$77.07	\$46,242.00	N
2	Provide all necessary hardware for preparation to install condit	300.00	Hour	X	\$59.88	\$17,964.00	N
3	Provide and Install 4"	225.00	Hour	X	\$77.07	\$17,340.75	N
4	Provide and Install PVC 1"	250.00	Hour	X	\$77.07	\$19,267.50	N
5	Provide and Install PVC 1 1/4"	65.00	Hour	X	\$77.07	\$5,009.55	N
6	Provide and Install 500, 600 and 4/0 electrical wire	250.00	Hour	X	\$77.07	\$19,267.50	N
7	Provide and Install equipment, panels , LD2/d, L1D/D	60.00	Hour	X	\$77.07	\$4,624.20	N
8	Provide and Install transformers, 30 and 150KVA	50.00	Hour	X	\$77.07	\$3,853.50	N
9	Provide and erect all sub-structures for equipment	300.00	Hour	X	\$77.07	\$23,121.00	N
10	Terminate, label and certify project	250.00	Hour	X	\$77.07	\$19,267.50	N
SUBTOTAL LABOR:						\$175,957.50	
CATEGORY II: Permanent & Non-Permanent Materials/Supplies							
Line Item	Description	Qty (#)	Unit		Price/Unit	Total	Taxable (Y/N)
1	Conduit 4"	3700.00	FT	X	\$3.65	\$13,505.00	Y
2	Conduit 1"	600.00	FT	X	\$0.78	\$468.00	Y
3	Conduit 1-1/4"	300.00	EA	X	\$1.02	\$306.00	Y
4	500 MCM Wire	180.00	FT	X	\$8.00	\$1,440.00	Y
5	600 MCM Wire	3700.00	FT	X	\$10.00	\$37,000.00	Y

EXHIBIT G: SCHEDULE OF VALUES

6	1-1/4 EMT Conduit	1.20	FT	X	\$350.00	=	\$420.00	Y
7	Wire #6 and #10	3000.00	FT	X	\$1.24	=	\$3,720.00	Y
8	Miscellaneous Hardware for the Installation	1.00	EA	X	\$14,400.00	=	\$14,400.00	Y
9	Miscellaneous materials, sand, slurry, asphalt and concrete	1.00	EA	X	\$16,700.00	=	\$16,700.00	Y
10	4/0 Wire and miscellaneous ground wire	750.00	FT	X	\$6.00	=	\$4,500.00	Y

SUBTOTAL MATERIALS: \$92,459.00

CATEGORY III: EQUIPMENT

Line Item	Description	Qty (#)	Unit		Price/Unit		Total	Taxable (Y/N)
1	Breakers. 400AMP, 225AMP	2.00	EA	X	\$900.00	=	\$1,800.00	Y
2	Panel board LD2/d	1.00	EA	X	\$3,500.00	=	\$3,500.00	Y
3	Panel board L1D/d	1.00	EA	X	\$1,800.00	=	\$1,800.00	Y
4	Transformer T1 150KVA	1.00	EA	X	\$6,300.00	=	\$6,300.00	Y
5	Transformer T2 30KVA	1.00	EA	X	\$3,760.00	=	\$3,760.00	Y
6	Underground Pull Boxes	6.00	EA	X	\$2,300.00	=	\$13,800.00	Y
7	Light Fixture and materials for it	1.00	EA	X	\$2,199.00	=	\$2,199.00	Y
8				X		=	\$0.00	Y
9				X		=	\$0.00	Y
10				X		=	\$0.00	Y

SUBTOTAL EQUIPMENT: \$33,159.00

CATEGORY IV: OVERHEAD & INDIRECT COSTS

Line Item	Description	Qty (#)	Unit		Price/Unit		Total	Taxable (Y/N)
1	Project Management	500.00	EA	X	\$65.00	=	\$32,500.00	
2	Shipping and delivering materials to site	100.00	EA	X	\$45.00	=	\$4,500.00	
3	Payroll Taxes	2275.00	EA	X	\$4.50	=	\$10,237.50	
4	Insurance	1.00	EA	X	\$9,500.00	=	\$9,500.00	
5	Leasing	1.00	EA	X	\$6,009.00	=	\$6,009.00	
6				X		=	\$0.00	
7				X		=	\$0.00	
8				X		=	\$0.00	
9				X		=	\$0.00	
10				X		=	\$0.00	

EXHIBIT G: SCHEDULE OF VALUES

SUBTOTAL OVERHEAD: \$62,746.50				
PROJECT SUBTOTAL:				\$364,322.00
CATEGORY V: PROFIT				
Line Item	Description	% Profit	Total	Taxable (Y/N)
1	Provide the percentage of the project subtotal (above) that will be assessed as profit.	10.00%	\$36,432.20	N
SUBTOTAL PROFIT: \$36,432.20				
APPLICABLE SALES TAX @ 7.75%:				\$9,735.40
GRAND TOTAL:				\$410,489.60

EXHIBIT H: PROJECT APPROACH AND TIMELINE

Provide responses to the questions below; the information may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Provide a brief statement with general description of the proposed project approach and identify whether the materials bid are as-specified or will include proposed alternate equivalents.

GA Technical will supply all labor and materials to support this installation

Our approach will be with the most professional attitude and will coordinate with proper personnel to adhere to all details

2. Provide the project phases along with the number of working days required to complete each phase in the table below. Attach additional sheets if necessary.

No.	Project Phase Description	Number of Working Days to Complete
1	Provide all trenches necessary	9
2	provide all conduits and material	4
3	Install all conduits banks	5
4	Provide and Install all materials to cover up trenches	3
5	Install all electrical wiring	6
6	Test all wires	2
7	Provide and Install Miscellaneous items, lights and poles	6
8	Terminate all wires and test	6
9	Intsall all equipment and test	10
Total Working Days to Complete Project:		51

EXHIBIT I: LIST OF PROJECT REFERENCES

The Bidder must demonstrate knowledge of public construction techniques and the performance of similar work for other public agencies. The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.** Attach additional sheets as necessary.

1. Submit documentation demonstrating how Bidder and subcontractors meet the minimum qualifications outlined in §1.4.1, §1.4.2, and §1.4.3.

2. Contractor and all Subcontractors must possess a minimum of ten (10) years' experience providing the same or similar services OR equivalent experience on similar public works projects within the past five (5) years. Describe how Contractor and all Subcontractors meet this requirement (§1.4.4 of this IFB Document).

2. Provide evidence of previous successful use of Irvine.gov.

3. Describe previous experience with underground conduit trenching with T cap support over ducts.

4. Provide details on previous bridge rated manhole experience.

5. Describe recent experience with Fire Rated Prop electrical work.

6. 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, as stated in Attachment Two, in a timely or satisfactory manner. Provide information for three public agencies for which the Bidder has performed similar work within the past five (5) years.

Agency Name: Twin Rivers USD **City/State:** Sacramento, CA
Contact: Chris Zunino **Title:** Procurement Manager
Email: czunino@greystonewest.com **Phone:** (915) 514-8104
Project Name: Harmon Johnson ES - Switchgear Replacement **Value:** \$155,000
Scope of Work: Switchgear Replacements and All Pertinent Information for a Complete Installation of the Systems

Agency Name: City of Huntington Beach **City/State:** Huntington Beach, CA
Contact: Kevin Dupras **Title:** Procurement Manager
Email: kevin.dupras@surfcity-hb.org **Phone:** (714) 375-5035
Project Name: Replace Transformer & Underground Cables **Value:** \$504,366
Scope of Work: Replace 12 Medium Voltage Substations & Med Voltage Cables Distribution

Agency Name: Orange County Fire Authority **City/State:** Irvine, CA
Contact: Chris DeCoursey **Title:** Procurement Manager
Email: chrisdecoursey@ocfa.org **Phone:** (714) 573-6473
Project Name: Emergency Power, Extension Project Services **Value:** \$372,324
Scope of Work: Installation of electrical power to extend services of 1kva emergency power.

EXHIBIT J: LIST OF CURRENT PROJECTS

The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

Project Name	Description of Bidder's Work	Completion Date	Project Cost
Electrical Upgrades at Alessandro	Installation of electrical wiring for welding lab	09/20/2020	\$143,670
City of Yorba Linda	Maintenance Building	Ongoing	\$73,504
W. Hollywood	Remove old UPS and install new UPS	09/25/2020	\$77,000
Antelope Valley	Provide and install Fiber Enclosures, Run Cables & Testing	Ongoing	\$23,870
Cal Poly Pomona	Building 7 Audio/Video Upgrades	09/17/2020	\$132,500
DMV - Throughout So. CA	Install and/or convert dedicated Electrical to new distribution system	Ongoing	\$209,980
EMWD - Throughout So. CA	Provided Communication wiring, cabling, boxes, testing	Ongoing	\$309,758
Antelope Valley Union HS - Throughout So. CA	Provide and install Boxes, Jacks, Patch Panels, run cables & Testing	Ongoing	\$205,000
Dept. of Forestry Camarillo	Electrical upgrades, install transformer, disc switch, panels & stations	10/02/2020	\$48,147
LA County Sanitation	Phone Cabling Upgrades	10/07/2020	\$39,062
San Francisco State University	Provide and install Fiber Optic, Cabinets. Testing	10/05/2020	\$41,546
CSFU	Demolition of existing/new concrete pathway for traffic control lights	Ongoing	\$13,959
Travis Air Force Base	Replace communications cabling, pull boxes, terminate/testing	Ongoing	\$24,851

STATE OF CALIFORNIA



DEPARTMENT OF CONSUMER AFFAIRS

**CONTRACTORS
STATE LICENSE BOARD
ACTIVE LICENSE**



License Number

816080

Entity **CORP**

Business Name

G A TECHNICAL SERVICES INC

Classification(s)

C-7 C10 B

Expiration Date

12/31/2020

www.csib.ca.gov





State of California

Department of Industry

Contractor Information

Legal Entity Name

GA TECHNICAL SERVICES, INC

Legal Entity Type

Corporation

Status

Active

Registration Number

1000001050

Registration effective date

07/01/20

Registration expiration date

06/30/21

Mailing Address

1226 W 9TH ST. UPLAND 91786 CA United State...

Physical Address

1226 W 9TH ST. UPLAND 91786 CA United State...

Email Address

adriana.cervantes@gatechservices.com

Trade Name/DBA

GA TECHNICAL SERVICES, INC

License Number (s)

CSLB:816080

CSLB:816080

Registration History

Effective Date	Expiration
----------------	------------

05/16/18	06/30/19
----------	----------

05/26/17	06/30/18
----------	----------

06/14/16	06/30/17
----------	----------

06/11/15	06/30/16
----------	----------

08/25/14	06/30/15
----------	----------

07/01/19	06/30/20
----------	----------

07/01/20	06/30/21
----------	----------

Legal Entity Information

Corporation Entity Number:

2419588

Federal Employment Identification Number:

320019682

President Name:

FRANK CERVANTES

Vice President Name:

Treasurer Name:

Secretary Name:

CEO Name:

Agency for Service:

Agent of Service Name:

SANDRA CERVANTES

Agent of Service Mailing Address:

1226 W 9TH ST. UPLAND 9

BUSINESS LICENSE APPLICATION

BUSINESS INFORMATION

BUSINESS NAME

G A TECHNICAL SERVICES INC

ADDITIONAL BUSINESS NAMES (DBA's)**BUSINESS ADDRESS (P.O. Box and Mail Drop NOT acceptable)**

1224 W 9TH ST

CITY	STATE	ZIP	FAX NUMBER
UPLAND	CA	91786	(909)382-9897

MAILING ADDRESS

1224 W 9TH ST

CITY	STATE	ZIP	WEB ADDRESS
UPLAND	CA	91786	

PLEASE DESCRIBE THE EXACT NATURE OF THE BUSINESS ACTIVITY TO BE CONDUCTED - ONLY ONE (1) BUSINESS ACTIVITY PER APPLICATION (i.e., Physician, Painter, Beautician, etc.)

ELECTRICIAN

AUTHORIZED OWNER OR AGENT OF BUSINESS

LIST RESIDENCE ADDRESS, PHONE, TITLE, AND DRIVER'S LICENSE NUMBER OF OWNER, PRESIDENT, PARTNER, CEO, (NOTE: The name of the person(s) listed below will be printed on the Business License Certificate; if necessary, attach a list of additional contacts.)

1. NAME	TITLE		
Frank Cervantes	President		
RESIDENCE ADDRESS*	PHONE*		
1224 W 9TH ST	(909)981-8600		
CITY	STATE	ZIP	DRIVER'S LICENSE NUMBER / STATE
UPLAND	CA	91786	C5437214 / CA

The City of Irvine takes your privacy seriously. Pursuant to the California Public Records Act, much of the information requested on this form will become a matter of public record once submitted. However, this form asks you to provide the City with certain personal information that is being requested and will be utilized by the City for the specific and limited purpose of future City correspondence regarding the subject-matter of this form. Pursuant to Measure S, an initiative ordinance passed by City voters in 2008, the personal information noted by an asterisk (*) on this form will be kept confidential. Unless you expressly indicate to us otherwise or unless compelled by a court order, it will not be shared with other agencies, businesses or individuals. The remaining information on this form will be kept confidential to the maximum extent permitted by law.

BUSINESS LICENSE APPLICATION

ADDITIONAL OWNER INFORMATION

2. NAME			TITLE
Sandra Cervantes			AP Specialist
RESIDENCE ADDRESS*			PHONE
1224 W 9th Street			(909)981-8600
CITY	STATE	ZIP	DRIVER'S LICENSE NUMBER / STATE
Upland	CA	91786	Y2556874 / CA

EMERGENCY CONTACT INFORMATION

PLEASE INDICATE WHOM THE CITY SHOULD CONTACT (OTHER THAN THE OWNER) IN THE EVENT OF AN EMERGENCY (e.g. fire, securing the building, etc.).

NAME	TITLE	PHONE
Frank Cervantes	President	(909)227-6492

IS YOUR OCCUPATION LICENSED BY THE STATE?

Yes

STATE LICENSE TYPE	STATE LICENSE NUMBER	EXPIRATION DATE
C-7,C10,B	816080	12/31/2020

DOES YOUR BUSINESS CREATE, STORE, GENERATE, OR USE HAZARDOUS SUBSTANCES OR ANY PRODUCTS THAT ARE CONSIDERED TO BE CORROSIVE, REACTIVE, IGNITABLE, TOXIC, AND/OR OZONE DEPLETERS?

No

INDICATE THE TYPE OF BUSINESS BEING DONE AT THE IRVINE LOCATION

Construction

INDICATE THE TYPE OF OWNERSHIP

Corporation

DO ANY PRODUCTS BEING SOLD OR MANUFACTURED CONTAIN CANNABIS, CBD, HEMP, OR RELATED INGREDIENTS?

☐ Yes ☒ No

Specify In Detail Goods Sold

Telecommunications and electrical services

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BUSINESS LICENSE APPLICATION

IS YOUR ORGANIZATION TAX EXEMPT?		IF YES, SPECIFY BELOW AND SUBMIT IRS DETERMINATION LETTER AT TIME OF PAYMENT	
<input type="checkbox"/> YES MY ORGANIZATION IS TAX EXEMPT		<input type="checkbox"/> NON-PROFIT ORGANIZATION	
		<input type="checkbox"/> ORGANIZATION PAYING IN-LIEU OF TAXES TO THE STATE	
IF YOUR ORGANIZATION HAS MULTIPLE BRANCH LOCATIONS IN IRVINE UNDER THE SAME SOCIAL SECURITY NUMBER OR FEDERAL EMPLOYER IDENTIFICATION NUMBER, PLEASE INDICATE THE BUSINESS LICENSE CERTIFICATE NUMBER(S) BELOW AND OMIT PAYMENT.			
FEDERAL EMPLOYER ID (FEIN) (ex. XX-XXXXXXX)		STATE EMPLOYER ID (EDD NUMBER) (ex. XXX-XXXX-X)	
32-0019682		229-4015-9	
STATE SALES TAX NUMBER (RESALE)		DATE BUSINESS STARTED IN IRVINE	
-		9/10/2020	
SPECIFY JOB LOCATION IN IRVINE			
OCFA			
DID YOU PURCHASE THIS BUSINESS?		IF YES, ENTER DATE OF PURCHASE	
Yes		1/1/2007	
HOW MANY PEOPLE (INCLUDING OWNERS, CONTRACT WORKERS, FULL AND PART-TIME EMPLOYEES) ARE WORKING AT THIS SPECIFIC LOCATION IN IRVINE FOR YOUR BUSINESS?			
Contractors: 0		Employees: 15	
		Owners: 1	
DOES YOUR BUSINESS SELL ALCOHOL?		IF YES, PLEASE PROVIDE ABC LICENSE NUMBER	
DO YOU SELL TAXABLE PRODUCTS/MANUFACTURE/WHOLESALE OR PROVIDE A TAXABLE SERVICE SUCH AS RENTING PRODUCTS/EQUIPMENT OR FABRICATION LABOR FROM YOUR LOCATION IN IRVINE?			
IF YOUR BUSINESS IS LOCATED IN IRVINE, DOES IT HAVE A SECURITY ALARM?			
Yes			
IF YES, DOES YOUR LOCATION HAVE AN IRVINE POLICE DEPARTMENT ALARM PERMIT?			
Yes			

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BUSINESS LICENSE APPLICATION

Home-Based Business Requirements

Is your City of Irvine Business and Residential Address the same?

☐

YES

☒

NO

Home-Based Business Requirements

NOTICE TO ALL APPLICANTS: Issuance of this license shall not entitle you to transact or to carry on any business covered by this license unless you comply with all requirements of this chapter and any other applicable Federal, State, or Local regulations pertaining to such business, including any applicable restrictions contained in private Covenants, Conditions & Restrictions (CC&R's) governing your property. Home Occupation Permits shall be approved by the City of Irvine provided the following standards are met:

1. The home occupation shall be an incidental and accessory use and shall not change the principal character of the dwelling unit.
2. The residence shall not be the primary point of customer pickup or delivery, nor shall the home occupation cause a significant increase in vehicular traffic in the neighborhood.
3. A sexually oriented business shall not be permitted to be conducted as a home occupation business.
4. There shall be no signs or other exterior evidence relating to the home occupation.
5. The home occupation may be conducted in the garage, but shall not use any space required for off-street parking.
6. Only the residents of the dwelling unit may be employed in the home occupation.
7. Electrical or mechanical equipment which creates visible or audible interference in radio

If you have any questions, please contact the Development Assistance Center at (949) 724-6308. If we are unable to approve your request for a home-based business, you will be invited to attend a hearing pursuant to City Council Ordinance 93-06, Sections II.M-217 and II.M-218, prior to denying your business license. If you are not satisfied with the decision made following your hearing, you may file a Notice of Appeal with the City Clerk within thirty (30) days of receipt of the written decision to deny the license.

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BUSINESS LICENSE APPLICATION

EMPLOYERS MUST HAVE WORKERS' COMPENSATION INSURANCE

I UNDERSTAND THAT UNDER CALIFORNIA LAW, I AM REQUIRED TO CARRY WORKERS' COMPENSATION INSURANCE FOR MY EMPLOYEES AT ALL TIMES.

I FURTHER UNDERSTAND THAT MY FAILURE TO HAVE THE APPROPRIATE COVERAGE WILL SUBJECT ME TO CIVIL PENALTIES OF \$10,000 PER EMPLOYEE WHO IS NOT COVERED BY WORKERS' COMPENSATION AND CRIMINAL PENALTIES OF UP TO ONE (1) YEAR IN JAIL AND/OR A FINE OF UP TO \$10,000.

I KNOW THAT EVEN IF I DON'T HAVE EMPLOYEES RIGHT NOW, I WILL BE REQUIRED TO GET WORKERS' COMPENSATION

☐ NO ☒ YES

NUMBER OF CURRENT EMPLOYEES: 15

DISABILITY ACCESS

UNDER FEDERAL AND STATE LAW, COMPLIANCE WITH DISABILITY ACCESS LAWS IS A SERIOUS AND SIGNIFICANT RESPONSIBILITY THAT APPLIES TO ALL CALIFORNIA BUILDING OWNERS AND TENANTS WITH BUILDINGS OPEN TO THE PUBLIC. YOU MAY OBTAIN INFORMATION ABOUT YOUR LEGAL OBLIGATIONS AND HOW TO COMPLY WITH DISABILITY ACCESS LAWS AT THE FOLLOWING AGENCIES:

DIVISION OF THE STATE ARCHITECT: www.dgs.ca.gov/dsa/Home.aspx
DEPARTMENT OF REHABILITATION: www.rehab.cahwnet.gov/
CALIFORNIA COMMISSION ON DISABILITY ACCESS: www.cdda.ca.gov/

AGREEMENT

APPLICATION CANNOT BE ACCEPTED OR PROCESSED WITHOUT SIGNATURE AND PAYMENT

I UNDERSTAND THAT THE ISSUANCE OF A CITY OF IRVINE BUSINESS LICENSE IS NOT A REGULATORY LICENSE TO OPERATE BUT A TAX IMPOSED BY THE CITY. IT IS THE RESPONSIBILITY OF THE APPLICANT/LICENSEE TO ENSURE THEIR BUSINESS COMPLIES WITH ALL APPLICABLE CITY OF IRVINE CODES, CITY ZONING ORDINANCES AND STATE AND FEDERAL LAWS. NONCOMPLIANCE MAY RESULT IN THE CITY REVOKING THE BUSINESS LICENSE. PLEASE CONTACT THE PLANNING AND ZONING COUNTER AT (949) 724-6308 TO CONFIRM YOUR BUSINESS MEETS THE REQUIREMENTS OF THE CITY ZONING ORDINANCE.

I HEREBY CERTIFY, UNDER PENALTY OF PERJURY, THE INFORMATION PROVIDED ON THIS APPLICATION IS TRUE AND CORRECT.

EXECUTED THIS 10 DAY OF September 2020 I, Frank Cervantes
Day Month Year Print full name

BY SUBMITTING THIS APPLICATION, I ACCEPT THE CONDITIONS & DECLARE UNDER PENALTY OF PERJURY THE FOREGOING IS TRUE AND CORRECT.



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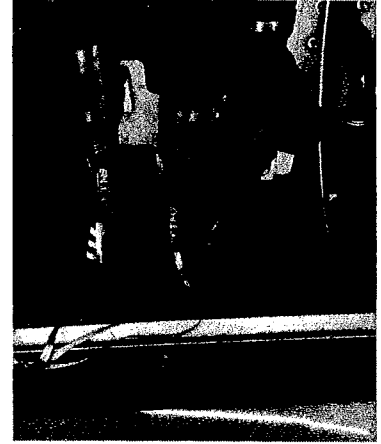
References

<u>Owner</u>	<u>Project Name</u>	<u>Award Amount</u>	<u>Description</u>	<u>Project Contact</u>	<u>Project Address</u>	<u>Completion Date</u>
Cal Poly Pomona	Rose Float Lab Electrical Upgrade	\$ 60,341.20	Remove existing wire and conduit, install new wire and conduit, new panel, new outlets, and emergency lighting	Becky Pepping 909-869-6842 bapepping@cpp.edu	3801 West Temple Ave. Pomona, Ca 91768	1/24/14
San Francisco State University	D000671: Campus Building Electrical Equipment Replacement	\$ 390,029.98	Replace existing 1600A circuit breakers with reburshied breakers at switchboard M in Thornton Hall, replace 1200 RD breaker plug-in trip unit with new plug-in trip unit in Hensil Hall, replace existing outdoor high voltage selector switch with new H.V Switch at Gymnasium and replacement existint 2000A outdoor distribution board with new at the Humanties Building	David McCormick 415-338-1698 dmccormi@sfsu.edu	1600 Holloway Ave. San Francisco, CA	7/3/14
City of Stockton	Dual Feed Conduit Installation	\$ 183,505.10	Installation of new 5 in. PVC and 2 in. PVC conduits, electrical manholes, pull boxes, concrete encased electrical duct banks and furnish spare 72 KB SF6 Switch.	Amin Kazemi 209-937-8716 Amin.Kazemi@stocktonca.gov	2500 Navy Drive Stockton, CA 95206	10/19/15
Modesto Junior College	Switch Gear Replacement Project	\$ 315,000.00	Replacement of the electrical switchboard at the MiWuk Building and replacement of the electrical switchboard and distribution board at the Auto shop.	Judy Lanchester 209-575-6903 Lanchesterj@yosemite.edu	2201 Blue Gum Ave Modesto, CA 95358	1/25/16
Los Angeles Community College	LED Lighting Replacements- Women's Gym	\$ 142,000.00	Retrofit of existing fluorescent fixtures to LED	Safi Ishrati 213-891-2000 ishratss@lamission.edu	770 Wilshire Blvd. Los Angeles, Ca 90017	4/15/16
San Jose State University	Campus Village Phase 2 Feeder Installation Project	\$ 58,000.00	Installing a 12KV Feeder from Electrical Manhole 31 to the Campus Village Phase 2 switch	James Sowerbrower 408-924-1925 jamessowerbrower@sjsu.edu	One Washington Square San Jose, CA 95192	4/28/16
Burbank-Glendale-Pasadena	Project # E13-09 Terminal High voltage	\$ 489,000.00	Replacment of transformers, switchboardd, electrical panels and 2400 volt main feeders and assocaited connections at Bob Hope Airport	Dave Padilla 818-561-9305	2800 N Clybourn Burbank, CA 91505	4/29/16
Regional Sanitation District of Sacramento	Solids Storage Basins Battery I Digester Sludge Electrical Improvements Project	\$ 228,303.08	Installation of Approximately 1,800 Ft. of underground conduits and wiring.	Gerardo Aguirre aguiereg@sacsewer.com 916-875-9075	8521 Laguna Station Rd. Elk Grove, Ca 95758	3/15/17

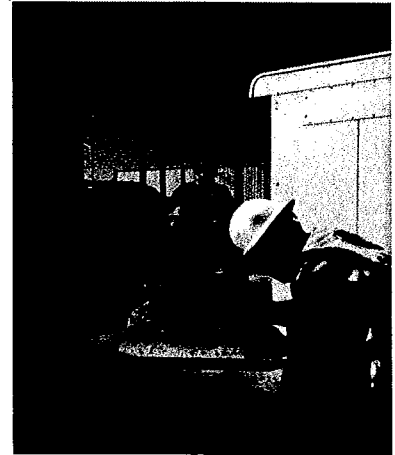
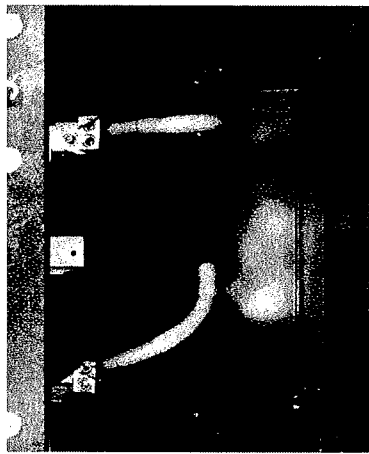
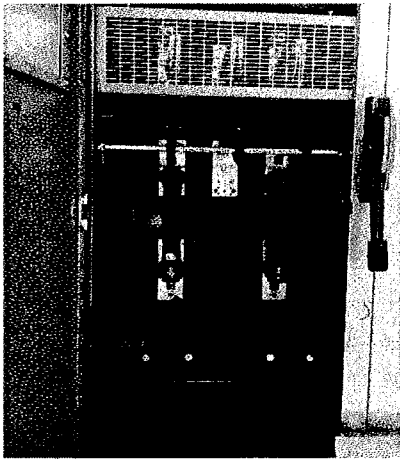
San Jose State University	Utilities Infrastructure Phas IV 12Kv Cable Pull	\$ 179,956.00	Providing and installing approximately 1,000' LF of (2) 4/0 3-phase medium voltage cable in existing 5" conduits and 3 existing vaults, work requires confined space and working on manholes with other energized feeders in proximity	Kristina Lee Kristina.lee@sjsu.edu 408-924-1913	One Washington Square San Jose, CA 95192	6/9/17
City of Huntington Beach	Replace Transformers and Underground Cable at Central Park, MSC 498	\$ 504,366.85	Replace (12) existing medium voltage miniature substations and all medium voltage cable from the main distribution switch to all substations in City of Huntington Beach Central park	Kevin Dupras kevin.dupras@surfcity-hb.org 714-375-5035	17371 Gothard St. Huntington Beach, Ca 92647	9/30/17
Department of Motor Vehicle	Cabling and Electrical Services for the DMV Field Offices	\$ 1,009,180.19	Telcommunications Network Cabling, Related Electrical Services, and related hardware installation services	Kelly Piceno Kelly.piceno@dmv.ca.gov 916.657.8909	Statewide - California	12/31/17
Department of General Services	Statewide Facility Electrical Upgrade Program (EVSE)	\$ 26,110.81	Provide and Install of (2) 2-1/2" conduits and encase and inside. Provide and Install all receptacles and electrical apparatus and (1) vault	Conrad Lewis 916-376-1630 Conrad.Lewis@dgs.ca.gov	7425 Mission Blvd. Riverside, CA 92501	2/1/18
Orange County Fire Authority	Emergency Power Extension Project Services	\$ 372,324.00	Installation of electrical components needed to extend electrical power from a 1000 kWh emergency power generator to all electrical circuits throughout the Orange County Fire Authority Regional Fire Operations and Training Center (RFOTC)	Chris DeCoursey ChrisDeCoursey@ocfa.org 714-573-6473	1 Fire Authoirty Rd. Irvine, Ca 92602	3/9/18
Torrance USD	North High School Electrical Feeder Project	\$ 117,995.00	Provide and Install Labor and Materials to Remove and Replace (6) Sets of Electrical Feeder Cables	Cesar Vergara Vergara.Cesar@tUSD.org 310-972-6241	3620 West 182nd St Torrance, CA 90504	10/29/18
City of Palmdale	IS Server Room Electrical Upgrade	\$ 139,300.00	IS Server Room Electrical Uphrade and a Backup Cooling Replacement	Ulises Gonzalez ugonzalez@cityofpalmdale.org 661-267-5241	38300 Sierra Highway Suite C Palmdale, CA 93550	9/3/19
Glendale USD	Electrical Site Work for CTE Equipment	\$ 28,500.00	Electrical Site Work for CTE Equipment	Tony Barrios tbarrios@gUSD.net 818-507-0201	1440 East Broadway Glendale, CA 91205	9/21/19
South Pasadena USD	Rm 2223 Electrical	\$ 14,560.00	Upgrade Electrical in Room 223	Tim Mawhinney tmawhinney@spUSD.net 626-441-5810	1401 Fremont Ave South Pasadena, CA 91030	1/4/20
Mt. SAC	Substation 26 Replacement	\$ 107,500.00	Labor and Materisl to Replace Substation 26	Rondell Schroeder rschroder@mtsac.edu 909-274-5511	1100 N. Grand Ave Walnut, CA 91789	11/22/19
City of Chino	City Hall Portable Generator Connection Project	\$ 28,293.65	City Hall Portable Generator Connection Project and if required to relocate exisiting generator	Carolyn Baltzer cbaltzer@cityofchino.org 909-334-3401	13220 Central Ave Chino, CA 91710	9/16/19

Twin Rivers USD	Harmon Johnson ES - Switchgear Replacement Project	\$ 155,100.00	Harmon Johnson ES - Switchgear Replacement	Elizabeth Villagomez elizabeth.villagomez@twinrivers usd.org 916-566-1600	577 Las Palmas Ave Sacramento, CA 95815	10/8/19
Campbell Union High School District	Fiber Network at Campbell USD	\$ 329,945.01	Installation of Single Mode Fiber between the MDF and IDF	John Keating 408-455-346 jkeating@cuhdsd.org	Campbell Union HSD 3234 Union Avenue San Jose, CA 95124	1/24/20
Mt. SAC	Bldg 10 Transformer Installation & 9F & 9G Rewire	\$ 275,500.00	Installation of a transformer near Bldg 10 as well as the rewire of modulars. Also the construction of a new wall enclosure	Teresa Patterson 909-274-5512 tpatterson@mtsac.edu	1100 N. Grand Ave Walnut, CA 91789	4/28/20
City of Glendale	Installation of Parking Meters	\$ 110,685.73	Installation of Parking Meters at the Glendale Community College	Tad Dombroski 818-937-8325 tdombroski@glendaleca.gov	633 E. Broadway, Rm 205 Glendale, CA 91206	5/5/20

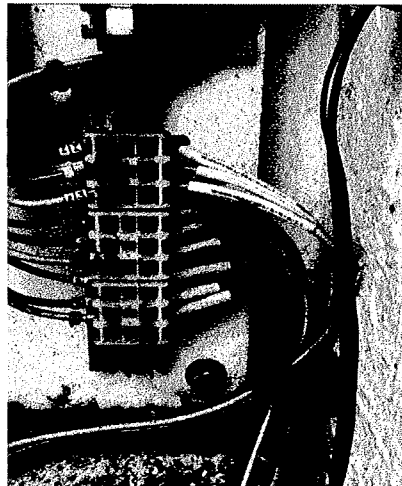
Medium Voltage Projects



San Jose State University: 12KV Cable Pull



City of Huntington Beach- Transformer Upgrade



Sacramento Regional County Sanitation

EXHIBIT K: TRANSMITTAL PAGE TWO – BID AWARD DOCUMENTS**TO:** Orange County Fire Authority**FROM:** GA Technical Services, Inc.

(Legal Name of Contractor)

PROJECT: Electrical Improvements at the RFOTC Drill Grounds**AWARDED CONTRACTOR'S CHECKLIST:**

The awarded Contractor is required to provide the following documents:

☒ Transmittal Page (*Exhibit K*) ☒ Award Certifications (*Exhibit N*) ☒ Signed Agreement☒ Performance Bond (*Exhibit L*) ☒ W9 (*Exhibit O*)☒ Payment Bond (*Exhibit M*) ☒ 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:** Frank Cervantes**TITLE:** President

Orange County Fire OCFA

Solicitation No. 2455

EXHIBIT L: 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 GA Technical Services, 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 SK2455 – RFOTC DRILL GROUNDS
ELECTRICAL IMPROVEMENTS**

("Contract") which Contract dated September 21, 2020, 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 Merchants Bonding Company (MUTUAL) ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of Four Hundred and Ten Thousand Four Hundred and Eighty-Nine and 60/100 DOLLARS (\$410,489.60), 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 22nd day of September, 2020. 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)

GA Technical Services, Inc.

Principal

By



Frank Cervantes / President
Print Name and Title of Signatory**SURETY:**

(Affix Corporate Seal)

Merchants Bonding Company (Mutual)

Surety

By


Josefina Rojo, Attorney-In-Fact

Alliant Insurance Services, Inc.

Name of California Agent of Surety

333 S. Hope St., Suite 3750, Los Angeles, CA 90071

Address of California Agent of Surety

(312) 595 - 6525

Telephone Number of California Agent of Surety

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

Orange County Fire OCFA

Solicitation No. 2455

EXHIBIT M: 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 GA Technical Services, 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 SK2455 – RFOTC DRILL GROUNDS
ELECTRICAL IMPROVEMENTS**

("Contract") which Contract dated September 21, 2020, 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, Merchants Bonding Company (MUTUAL) ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of Four Hundred and Ten Thousand Four Hundred and Eighty-Nine and 60/100 DOLLARS (\$410,489.60), 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 22nd day of September, 2020.

CONTRACTOR:

(Affix Corporate Seal)

GA Technical Services, Inc.

Principal



By

Frank Cervantes / President

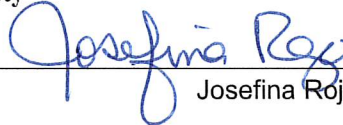
Print Name and Title of Signatory

SURETY:

(Affix Corporate Seal)

Merchants Bonding Company (Mutual)

Surety



By

Josefina Rojo, Attorney-In-Fact

Alliant Insurance Services, Inc.

Name of California Agent of Surety

333 S. Hope St., Suite 3750, Los Angeles, CA 90071

Address of California Agent of Surety

(312) 595 - 6525

Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. 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 San Bernardino

On 09/23/2020 before me, Jasmine Cervantes, Notary Public

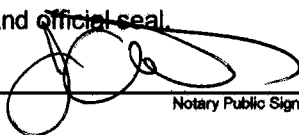
personally appeared Frank Cervantes

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.

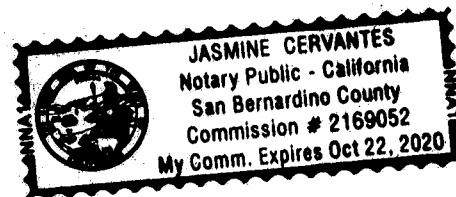
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature



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

GA Technical Services, Inc.

RIGHT THUMBPRINT
OF SIGNER
Top of thumb

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

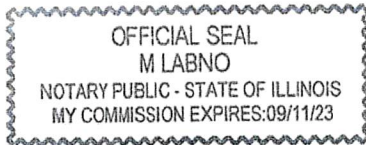
Signer is representing

RIGHT THUMBPRINT
OF SIGNER
Top of thumb

State of Illinois
County of Cook

On this 22nd day of September 2020, before me personally appeared
Josefina Rojo, known to me to be the Attorney-in-fact of
Merchants Bonding Company (Mutual), the corporation that executed the
within 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
aforesaid county, the day and year in this certificate first above written.



A handwritten signature in blue ink, appearing to read "M Labno", written over a horizontal line.

(Notary Public)

(Seal)

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,*

Merchants Bonding Company (Mutual)

of Iowa, organized under the laws of Iowa, 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, Liability, and Miscellaneous

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 1st day of October, 2015, I have hereunto set my hand and caused my official seal to be affixed this 1st day of October, 2015.*



Dave Jones
Insurance Commissioner

Valerie Sarfaty
for Nettie Hoge
Chief Deputy

By

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 Insurance Code section 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.

MERCHANTS
BONDING COMPANYTM
POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Christina Mountz; Dorothy J Ballis; Emily Golecki; Jacquelyn M Norstrom; John P Harney; Josefin Rojo; Pamela S Higginbotham

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) 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.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

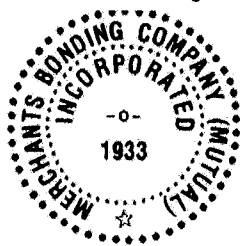
"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 16th day of April, 2020.



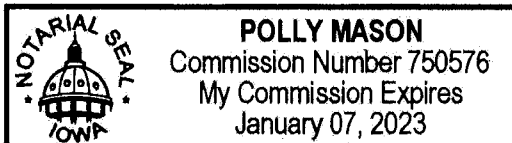
MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By

Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this 16th day of April, 2020, before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.



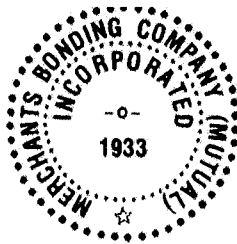
Polly Mason

Notary Public

(Expiration of notary's commission
does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., 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 and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 22nd day of September, 2020.



William Warner Jr.

Secretary

EXHIBIT N: 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: 09/21/2020

Legal Name of Contractor: GA Technical Services, Inc.

Signature: 

Printed Name: Frank Cervantes

Title: President

Request for Taxpayer Identification Number and Certification

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the
requester. Do not
send to the IRS.

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. GA TECHNICAL SERVICES, INC	
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 one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ 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. <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. 1224 W 9TH ST	Requester's name and address (optional)
6 City, state, and ZIP code UPLAND, CA 91786	
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.

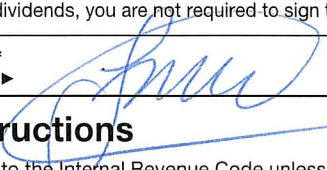
Social security number									
			-						
or									
Employer identification number									
3	2	-	0	0	1	9	6	8	2

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 ► 	Date ► 09/21/2020
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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.

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.

**ORANGE COUNTY FIRE AUTHORITY
CONSTRUCTION SERVICES AGREEMENT
FOR ELECTRICAL IMPROVEMENTS AT RFOTC DRILL GROUNDS**

THIS AGREEMENT FOR ELECTRICAL IMPROVEMENTS AT RFOTC DRILL GROUNDS ("Agreement") is made and entered into this ____ day of October, 2020, ("Effective Date") by and between Orange County Fire Authority, a California Joint Powers Authority ("OCFA"), and GA Technical Services Inc., ("Contractor"). OCFA and Contractor are sometimes hereinafter individually referred to as "Party" and collectively as the "Parties".

RECITALS

WHEREAS, OCFA requires the construction of electrical improvements at the RFOTC drill grounds located at 1 Fire Authority Rd., Irvine, CA 92602 as requested in IFB SK2455, hereinafter referred to as "Project"; and

WHEREAS, Contractor has submitted to OCFA a bid dated September 9, 2020, incorporated herein by this reference ("Bid"); and

WHEREAS, OCFA and Contractor desire to enter into this Agreement in order to receive and provide, respectively, construction services on the same terms, conditions, and pricing as further set forth in Section 1.1 of this Agreement;

AGREEMENT

NOW THEREFORE, OCFA and Contractor mutually agree as follows:

SECTION ONE

1. SCOPE OF AGREEMENT. In compliance with all terms and conditions of this Agreement, OCFA shall procure construction services from Contractor as more fully detailed in Exhibit "A", attached hereto, which includes by reference and by addendum: (1) OCFA's IFB SK2455, dated August 20, 2020 ("Solicitation"), (2) Contractor's Bid, dated September 9, 2020, and (3) any amendments, addendums, change orders, or modifications mutually agreed upon by the Parties hereto ("Services", "Goods" or "Work"). In the event of any inconsistency between the terms contained in Exhibit "A", 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 Exhibit "A" shall govern, in that order.

2. GENERAL CONDITIONS. Contractor certifies and agrees that all the terms, conditions, and obligations of this Agreement, including the location of the Project site, and the conditions under which the work is to be performed, have been thoroughly reviewed. Contractor enters into this Agreement based upon Contractor's investigation of all such matters and is in no way relying upon any opinions or representations of OCFA. It is agreed that this Agreement and the attached exhibits represent the entire agreement. It is further agreed that the Contractor and its subcontractors, if any, will be and are bound by this Agreement relating in any part or in any way, directly or indirectly, to the work covered by this Agreement. Contractor further certifies and agrees that the work described herein 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.

3. MATERIALS AND LABOR. Contractor shall furnish, under the conditions expressed herein, at Contractor's own expense, all labor and materials necessary, except such as are mentioned in Exhibit "A" to be furnished by the OCFA, to construct and complete the Project, in good workmanlike and substantial order. 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 them directly and deduct the amount of payments from this Agreement price and any amounts due to Contractor. In the event OCFA receives a stop notice from any laborer or material supplier alleging nonpayment 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.

4. CONTRACT PRICE AND METHOD OF PAYMENT

4.1 CONTRACT PRICE. OCFA agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Agreement, subject to any subsequent additions or deductions as provided in approved change orders, the sum of Four Hundred Ten Thousand, Four Hundred Eighty-Nine Dollars and Sixty Cents (\$410,489.60) as shown on Exhibit "A".

4.2 METHOD OF PAYMENT. Within thirty (30) days from the commencement of work, there shall be paid to the Contractor a sum equal to ninety-five percent (95%) of the value of the actual work completed plus a like percentage of the value of material suitably stored at the worksite or approved storage yards subject to or under the control of the OCFA, since the commencement of the work as determined by the OCFA.

Thereafter, on a schedule issued by the OCFA at the commencement of the job which shows a minimum of one payment made to the Contractor per month for each successive month as the work progresses and the request for payment due dates from the Contractor to meet the payment schedule, 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 since the commencement of work as determined by the OCFA, 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.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the OCFA's Project Manager, stating that the work for which payment is demanded has been performed in accordance with the terms of this Agreement, and that the amount stated in the certificate is due under the terms of this Agreement. Partial payments on this Agreement price shall not be considered as an acceptance of any part of the work.

4.3 RETENTION. The OCFA will retain five percent (5%) of the amount of each such progress estimate and material cost until the Final Payment.

5. CONTRACTOR'S REPRESENTATIVE. The following principal of Contractor is hereby designated as being the principal and representative of Contractor authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: Frank Cervantes, President. The foregoing principal shall be responsible during the term of this Agreement for directing all activities of Contractor and devoting sufficient time to personally

supervise the work hereunder. The foregoing principal may not be changed by Contractor without the express written approval of OCFA

6. OCFA PROJECT MANAGER. The Project Manager shall be Patrick Bauer, Property Manager, unless otherwise designated in writing by OCFA. It shall be Contractor's responsibility to keep the Project Manager fully informed of the progress of the provision of the Goods or Services and Contractor shall refer any decisions that must be made by OCFA to the Project Manager. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Project Manager.

7. NOTICES. 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, Purchasing
Manager
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:

GA Technical Services, Inc.
Attention: Frank Cervantes, President
1226 W. 9th Street
Upland, CA 91786

SECTION TWO

8. COMPLIANCE WITH LABOR CODE AND PUBLIC CONTRACT CODE. OCFA is subject to the provisions of law relating to prevailing wages, labor law generally, and public contracts in the State of California. It is agreed that all provisions of law applicable to public contracts are a part of this Agreement to the same extent as though set forth herein, and will be complied with by the Contractor.

No contractor or subcontractor may be awarded or perform a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall not pay less than the prevailing wage. It shall be the responsibility of the Contractor to obtain the prevailing wage rates from the Director of Industrial Relations directly.

9. PREVAILING WAGE. This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the higher of the two prevailing wage rates, federal or state, will be enforced. The work is subject to the payment of not less than prevailing wages under Labor Code Section 1770 et seq. Contractor agrees to comply with all related provisions of the Labor Code, including but not limited to, the provisions of Labor Code Section 1775 relating to payment of prevailing wages, Section 1777.5 relating to employment of apprentices and Section 1811-1813 relating to the payment of overtime. Failure to comply with the proper prevailing wage requirements may result in penalty of up to \$200 per day per worker. Failure to comply with apprenticeship requirements may result in penalty of \$100-\$300 for each calendar day of violation. Failure to pay proper overtime rate may result in a penalty of \$25 per day per worker. Bidders 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 this Agreement which will be awarded to the successful bidder. This information is available at the Department of Industrial Relations website: <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Bidders are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Further information on Compliance Monitoring Unit requirements can be found at: <https://www.dir.ca.gov/Public-Works/PublicWorksEnforcement.html>.

In accordance with Section 1773.2 of the CA Labor Code, the Contractor shall post a copy of the determination of prevailing rate of wages at each job site. Travel and subsistence payments to each workman needed to execute the work shall be made as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the CA Labor Code.

10. RELEASE OF LIENS AND PAYMENT SCHEDULE. Prior to each progress payment Contractor shall submit a "Conditional Release of Lien upon Progress Payment" with the first, and thereafter each, progress payment application in the amount of the application for payment specifying the period of time for which the Conditional Release applies.

For each payment period, if payment has been received by Contractor for the previous application, Contractor shall submit an "Unconditional Waiver and Release Upon Progress Payment" for the labor and materials associated with the progress billing satisfied with the prior payment. The subsequent progress billing is then submitted with a new "Conditional Release of Lien" in the amount of the application for the next specified period of time.

When all project labor and materials have been paid in full, Contractor shall submit an "Unconditional Waiver and Release Upon Final Payment".

Final Payment shall not become due until Contractor submits to OCFA's Project Manager: (1) an Unconditional and Final Release of Liens containing an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work and materials for which OCFA or OCFA's property might in any way be responsible, have been paid or otherwise satisfied, and signed by all subcontractors and suppliers; (2) the consent of the surety to Final Payment; and (3) if reasonably required by the OCFA's Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of this Agreement, to the extent and in such form as may be designated by the OCFA's Project Manager. OCFA's Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.

If any Subcontractor or material supplier refuses to sign the Final Release of Liens or to furnish a release or waiver required by OCFA's 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 OCFA's Project Manager to indemnify OCFA against any lien and against the costs and reasonable attorney fees in discharging such lien. If any lien remains unsatisfied after all payments are made, Contractor shall refund to OCFA all monies that the OCFA pays in discharging such lien, including all costs and reasonable attorneys' fees, or OCFA in its sole discretion may proceed to make a demand against the surety for all such costs and attorney fees. In the event OCFA makes demand for payment against the surety, Contractor shall be responsible to reimburse OCFA upon demand for any costs and reasonable attorney fees not paid by the surety.

11. TIME OF COMMENCEMENT AND COMPLETION. Contractor agrees to commence the Project within number of days specified in Exhibit "A" and shall diligently prosecute the work to completion as provided for herein, excluding delays caused or authorized by the OCFA as set forth in this Agreement.

Time is of the essence of this Agreement. Contractor shall prepare and obtain approval of all shop drawings, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with construction schedule approved by the OCFA Project Manager. Contractor shall coordinate the work covered by this Agreement with that of all other Contractors, subcontractors of the OCFA, if any, in a manner that will facilitate the efficient completion of the entire work in accordance with this Agreement. OCFA shall have the right to assert complete control of the premises on which the work is to be performed and shall have the right to decide the time or order in which the various portions of the work shall be installed or the priority of the work of other subcontractors, and, in general, all matters representing the timely and orderly conduct of the work of Contractor on the premises.

12. LIQUIDATED DAMAGES FOR DELAY. The Parties agree that if the total work called for under this Agreement, in all parts and requirements, is not completed within the time approved by OCFA, plus any allowance made for delays or extensions authorized by OCFA, the OCFA will sustain damage which would be extremely difficult and impracticable to ascertain. The parties therefore agree that Contractor will pay to OCFA the sum of Five Hundred Dollars (\$500.00) per day, as liquidated damages, and not as a penalty, for each and every calendar day during which completion of the Project is so delayed. Contractor agrees to pay such liquidated damages and further agrees that OCFA may offset the amount of liquidated damages from any monies due or that may become due Contractor under this Agreement.

13. COMPLETION. Within 10 days after this Agreement completion date of the Project, Contractor shall file with the Project Manager its affidavit stating that all workers and persons employed, all firms supplying materials, and all subcontractors upon the Project have been paid in full, and that there are no claims outstanding against the Project for either labor or material, except those certain items, if any, to be set forth in an affidavit covering disputed claims, or items in connection with Stop Notices which have been filed under the provisions of the statutes of the State of California. The Project Manager may require affidavits or certificates of payment and/or releases from any subcontractor, laborer or material supplier.

Upon receipt of Contractor's affidavit, the Project Manager shall prepare appropriate documentation setting forth the particular details of the completed Project, including but not limited to, description and amount of all change orders, the final amounts of this Agreement, as amended, the time and dates of the total agreement and the identification of any unresolved claims or disputes. If necessary, Project Manager shall submit the Project and the agreements to the OCFA Board of Directors for acceptance of the job as complete.

14. SURETY BONDS

14.1 FAITHFUL PERFORMANCE BOND. Contractor shall furnish a Payment (Labor and Materials) Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.2 PAYMENT BOND. Contractor shall furnish a Faithful Performance Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.3 GENERAL REQUIREMENTS To the extent required under Civil Code section 9550, the Contractor shall furnish and maintain throughout completion of the Project the aforementioned bonds. The bonds must be issued by a surety authorized by the State Insurance Commissioner to do business in California.

14.4 UNACCEPTABLE SURETY. If any surety upon any bond furnished in connection with the Agreement becomes unacceptable to the OCFA, or if any such surety fails to furnish reports as to its financial condition from time to time as requested by the Project Manager, the Contractor shall promptly furnish such additional security as may be required by the Project Manager or the OCFA Board of Directors from time to time to protect the interests of the OCFA and of persons supplying labor materials in the prosecution of the work contemplated by this Agreement.

14.5 SUBSTITUTION OF SECURITY. Pursuant to Public Contract Code Section 22300, the Contractor shall be permitted to substitute securities for any monies withheld by the OCFA to ensure performance under this Agreement at the request and expense of the Contractor if he/she chooses to do so.

15. INSURANCE.

15.1 REQUIREMENTS. Contractor shall at all times carry, on all operations hereunder, bodily injury, personal injury, including death and property damage liability insurance, including automotive operations, bodily injury and property damage coverage; and builders' all risk insurance. All insurance coverage shall be in amounts specified below and shall be evidenced by the issuance of a certificate in a form prescribed by the OCFA and shall be underwritten by insurance companies satisfactory to OCFA for all operations, subcontract work, contractual obligations, product or completed operations, all owned, hired, and non-owned vehicles. Said insurance coverage obtained by the Contractor, excepting workers' compensation coverage, shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the OCFA to add the following provisions to the insurance policies: (1) the policy or policies shall name the OCFA, 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, Officers, Agents, and Employees, as determined by the OCFA, as additional insured on said policies; and (2) each policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its Directors, Officers, Officials, Agents, Employees, Project Manager, Volunteers or Consultants, shall not contribute with the primary insurance.

Workers' Compensation	Minimum of \$1,000,000 - In Accordance with the Workers' Compensation Act of the State of California.
General Liability, including operations, products and completed operations	<p>\$5,000,000, per occurrence for bodily injury, personal injury and property damage/\$5,000,000 aggregate.</p> <p>If commercial general liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the required occurrence limit.</p> <p>For those businesses that are self-insured, a written declaration by the principal of the business should be provided.</p>
Automobile Liability, including owned, hired, and non-owned vehicles	\$1,000,000 combined single limit per occurrence; \$1,000,000 uninsured motorist.
Builder's Risk	All Risk Basis; Completed value of the project without co-insurance penalty provided.

Contractor shall maintain all of the foregoing insurance coverage in force until the work under this Agreement is fully completed and accepted by OCFA. The requirement for

carrying the foregoing insurance shall not derogate from the provisions for indemnification of OCFA by Contractor under this Agreement. 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 Agreement, the following insurance in amounts not less than the amounts specified and issued by a company admitted in California and having an A.M. Best's Guide Rating of "A-" Class VII or better: However, OCFA 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".

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.

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.

15.2 EVIDENCE OF COVERAGE. 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 coverage 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 OCFA.

OCFA 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.

15.3 SUBCONTRACTORS. 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 OCFA 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 to name the OCFA, its officials, officers, employees, agents and volunteers, as additional insureds. Contractor shall not allow any subcontractor to commence any work relating to this Agreement unless and until it has provided evidence satisfactory to OCFA that the subcontractor has secured all insurance required under this section. Payment under this Agreement for services performed by subcontractors may be withheld by OCFA until evidence satisfactory to OCFA is provided that the subcontractor has secured all the required insurance is provided to OCFA.

16. RISK AND INDEMNIFICATION. All work covered by this Agreement done at the site of construction or in preparing or delivering materials to the site shall be at the risk of Contractor alone. Contractor agrees to save, indemnify and keep OCFA, its Directors, Officers, Agents, Employees, Project Manager, and Consultants for this Agreement, and all public agencies from whom permits will be obtained and their Directors, Officers, Agents and Employees harmless against any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (Contractor's employees included) and damage to property, arising directly or indirectly out of the obligations herein undertaken or out of the operations conducted by Contractor, except that the indemnity obligation of Contractor shall be reduced by an amount proportional to the active negligence of the OCFA, if any, and will make good to and reimburse OCFA for any expenditures, including reasonable attorneys' fees OCFA may incur by reason of such matters, and if requested by OCFA, will defend any such suits at the sole cost and expense of Contractor.

In the event Contractor or its insurer refuses or fails to provide a legal defense to OCFA after receiving written notice of the legal action and a tender and demand for defense, OCFA shall have the right to select counsel of its own choice to represent all the interests of the OCFA. Contractor agrees that the amount of legal costs and expenses, including attorneys' fees, may be withheld by OCFA from any Contract amounts due and owing to Contractor until such time as a final determination is made as to the responsibility for payment of said fees and costs.

SECTION THREE

17. INDEPENDENT CONTRACTOR. Neither OCFA nor any of its employees shall have any control over the manner, mode or means by which Contractor, its agents or employees, perform the services required herein, except as otherwise set forth herein. Contractor shall perform all services required herein as an independent contractor of OCFA and shall remain at all times as to OCFA a wholly independent contractor with only such obligations as are consistent with that role. Contractor shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of OCFA.

18. ASSIGNMENT. Contractor shall neither delegate its duties or obligations, nor assign its rights with respect to this Agreement, 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.

19. COMPUTATION OF TIME. When any period of time is referred to in this Agreement 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.

20. INTEREST. Any monies not paid when due to either party under this Agreement shall bear interest at the rate of ten (10%) percent per annum, commencing on the forty-sixth (46th) day after demand for payment thereof after such monies are lawfully due and payable, except as otherwise provided in this Agreement.

21. 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 this Agreement as now or hereafter existing or at law, equity, or by statute.

22. NON-WAIVER. The failure of the OCFA to notify the Contractor of any default under this Agreement 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 Agreement, 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 this Agreement, or to exercise any option in this Agreement 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.

23. SEVERABILITY. In case any one or more provisions set forth in this Agreement 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 this Agreement, and this Agreement 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 Agreement.

24. NO THIRD PARTY BENEFICIARIES. This Agreement is 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 Agreement except as may be expressly provided in this Agreement to the contrary.

25. 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 this Agreement, and none of the provisions of this Agreement 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 Agreement by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.

26. COUNTERPARTS. This Agreement 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.

27. GOVERNING LAW. This Agreement shall be governed by the laws of the State of California.

28. SERVICES PRIOR TO EXECUTION. Notwithstanding the fact that this Agreement is executed as of the date first set forth above, the Parties recognize that a portion of the Work required under this Agreement may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of this Agreement and shall be deemed to be a part of the Work. Without limiting the foregoing, all of Contractor's liabilities and obligations to OCFA 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.

29. SURVIVAL OF RIGHTS. Any indemnity, warranty, guarantee given by the Contractor to the OCFA under this Agreement shall survive the expiration or termination of this Agreement and shall be binding upon Contractor until any action under this Agreement is barred by the applicable statute of limitations.

30. NON-DISCRIMINATION. 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 Agreement. Contractor shall take steps to ensure that applicants for any job and 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.

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.

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 Agreement 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.

IN WITNESS WHEREOF, the Parties hereto have executed this Construction Agreement as of the date first hereinabove written.

"OCFA"

ORANGE COUNTY FIRE AUTHORITY

Date: _____

By: _____

Sara Kennedy, CPPB
Purchasing Manager

APPROVED AS TO FORM.

ATTEST:

By: _____

DAVID E. KENDIG
GENERAL COUNSEL

Maria D. Huizar
Clerk of the Board

Date: _____

"CONTRACTOR "

GA TECHNICAL SERVICES, INC.

Date: 09/29/2020

By: _____


Frank Cervantes, President

Date: 09/29/2020

By: _____


Frank Cervantes,
Operations Manager

EXHIBIT "A": SCOPE OF SERVICES

SECTION 2: SCOPE OF SERVICES

2.1 PROJECT LOCATION

OCFA requires the improvement of the RFOTC drill grounds located at **1 Fire Authority Road, Irvine, CA, 92602**. The Drill Grounds were constructed in 2005 to accommodate training operations and simulate various conditions typically encountered during firefighting and rescue operations. Additional classrooms, training props and auxiliary equipment are now requiring permanent power, along with additional power to maintain vehicle communications and electrical equipment remain charged.

2.2 CONTRACTOR RESPONSIBILITIES

2.2.1 MATERIAL AND LABOR

Contractor shall provide all permits, material, labor, tools and supplies to complete the project as described herein. See Attachment Two for detailed information on these requirements and additional components that must be included in Contractor's bid and pricing.

2.2.2 CSLB LICENSE

Contractor and all 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.

2.2.3 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.

2.2.4 CITY OF IRVINE BUSINESS LICENSE REQUIREMENTS

Contractor and all subcontractors shall conform to the requirements of the City of Irvine and maintain an active business license pursuant to City of Irvine Municipal Code. The successful contractor and all subcontractors must remain in compliance with these requirements throughout the duration of the project.

2.3 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.

2.4 DELIVERABLES

2.4.1 PROJECT COMPONENTS

2.4.1.1 RE-FEED EXISTING MODULAR ROOMS

2.4.1.2 FEED NEW TWENTY-FOUR (24) TRUCK BATTERY CHARGERS

2.4.1.3 FEED NEW AND FUTURE TRAINING PROPS

Refer to Attachment Two of the IFB Document for detailed information about the project requirements including, but not limited to, the scope of services, drawings, specifications, submittals, required permits, inspections, etc.

2.4.2 SPECIFICATIONS

2.4.1.1 MINIMUM SPECIFICATIONS

The purpose of the information provided herein is to establish the minimum requirements for the supplies and materials 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.

2.4.1.2 EQUIVALENT ALTERNATE ITEMS

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 as equivalent alternatives to those items specified must include documentation to substantiate that the item is equal; failure to do so may result in the bid 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 non-responsive.

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 Construction Agreement (see Attachment One).

2.4.1.3 MATERIALS

Materials shall be pure, unadulterated, first quality and shall be delivered to the project in original unbroken packages bearing the makers name and brand number. Materials shall comply with all requirements described in Attachment Two. Materials shall be submitted for approval prior to use.

2.4.3 PROJECT EXECUTION**2.4.2.1 WORKMANSHIP**

OCFA will accept at a minimum the level of workmanship described below. 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.

2.4.2.2 CLEAN-UP

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.

2.4.2.3 PROTECTION

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

2.4.2.4 REPAIR

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

2.5 SCHEDULES, TIMELINES, AND MEETINGS**2.5.1 COORDINATION OF WORK**

Contractor shall coordinate the commencement of all work with OCFA so as not to cause inconvenience to the facility. The drill grounds will be in use during project work. 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.

2.5.2 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.

2.5.3 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 30 days

2.5.4 MEETINGS

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

2.4.2.1 PRE-AWARD MEETING

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

2.4.2.2 PRE-CONSTRUCTION JOB WALKS

These meetings with OCFA, the City of Irvine, and others as necessary and/or required by law will be coordinated by the Contractor

2.4.2.3 PROJECT STATUS MEETINGS

Weekly meetings held in person, unless otherwise determined

2.4.2.4 ACCEPTANCE

Meetings regarding project acceptance and warranty punch list items

2.4.2.5 ADDITIONAL

Other meetings deemed necessary for contract compliance

ATTACHMENT TWO: DRAWINGS AND SPECIFICATIONS

Following below are applicable drawings and specifications:

Please contact the
OCFA Clerk of the Authority Office
during regular business hours
at 714 573-6040
to obtain copies of the Plans
referenced in this attachment.

STANDARD SPECIFICATION
SECTION 02743 ASPHALT CONCRETE PAVING

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials, testing, and installation of aggregate base course, prime coat, tack coat, asphalt concrete pavement, seal coat, striping and markers.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Record Drawings and Submittals: STD SPEC 01300.
- B. Trenching, Backfilling, and Compacting: STD SPEC 02223.

1.03 DEFINITIONS

Whenever the term "Public Works Specifications" is used in this Section, the meaning shall be interpreted as Standard Specifications for Public Works Construction by APWA/AGC the "GREENBOOK" latest edition with Regional Supplement Amendments.

1.04 SUBMITTALS

- A. Submit submittal packages in accordance with Standard Specification Section 01300.
- B. Submit report from a testing laboratory verifying that aggregate material is asbestos-free and conforms to the specified gradations or characteristics.

1.05 TESTING FOR COMPACTION

- A. The District or the agency having jurisdiction over the area of the work will require the Contractor to test for compaction as described below.
- B. Determine the density of soil in place by the sand cone method, ASTM D 1556, or by nuclear methods, ASTM D 2922 and D 3017.
- C. Determine laboratory moisture-density relations of soils by ASTM D 1557.
- D. Determine the relative density of cohesionless soils by ASTM D 4253 and D 4254.
- E. Sample backfill materials by ASTM D 75.
- F. "Relative compaction" is the ratio, expressed as a percentage, of the inplace dry density to the laboratory maximum dry density.
- G. Compaction shall be deemed to comply with the Specifications when no more than one test of any three consecutive tests falls below the specified relative compaction. The one test shall be no more than three percentage points below the specified compaction. The Contractor shall pay the costs of any retesting of work not conforming to the Specifications.

PART 2 - MATERIALS

2.01 ASPHALT CONCRETE PAVING

Asphalt concrete paving shall conform to III-C2-AR-4000 as listed in Section 400-4 of the Public Works Specifications "GREENBOOK."

2.02 ASPHALT

Asphalt shall be viscosity grade AR 4000 or AR 8000. Asphalt content in the pavement shall be 5.5% to 6.0%.

2.03 AGGREGATE FOR ASPHALT CONCRETE

Aggregate shall be in accordance with Sections 400-1.1 and 400-1.2 of the Public Works Specifications "GREENBOOK." Aggregate shall be asbestos-free.

2.04 AGGREGATE BASE COURSE

Aggregate base shall be crushed aggregate base as specified in Section 400-2 of the Public Works Specifications "GREENBOOK." Aggregate shall be asbestos-free.

2.05 PRIME COAT

All areas to be paved shall receive prime coat. Prime coat shall be slow curing (SC-70) in accordance with Section 203-2 of the Public Works Specifications "GREENBOOK."

2.06 TACK COAT

Tack coat shall be slow setting (SS-1h) in accordance with Section 203-3 of the Public Works Specifications "GREENBOOK."

2.07 SEAL COAT

Seal coat shall conform with Section 302-5.10 in the Regional Supplement Amendments of the Public Works Specifications "GREENBOOK."

2.08 PAINT FOR TRAFFIC STRIPING AND MARKINGS

Provide rapid dry or fast dry paint per Section 210-1.6 of the Public Works Specifications "GREENBOOK." Provide a color to match the existing traffic striping and markings.

2.09 REFLECTIVE PAVEMENT MARKERS

Markers shall be of the reflective type and colored to match the existing pavement markers. Markers shall conform to Section 85 of the State Standard Specifications, State of California, Department of Transportation, Caltrans, latest editions.

PART 3 - EXECUTION

3.01 PERMIT REQUIREMENTS

Comply with the ordinances, directives, and regulations of the respective agencies having jurisdiction over the area of the work. Pavement removal and replacement shall be in accordance with these Specifications and the issued permit.

3.02 PAVEMENT REMOVAL

- A. Initially cut asphalt concrete pavement with a pavement saw, hydrohammer, or pneumatic pavement cutter at the limits of the excavation and remove the pavement regardless of the thickness. After backfilling the excavation, saw cut asphalt concrete pavement to a minimum depth of 2 inches at a point not less than 9 inches outside the limits of the excavation or the previous pavement cut, whichever is greater, and remove the additional pavement.
- B. Saw cut concrete pavement, including cross gutters, curbs and gutters, sidewalks, and driveways, to a minimum depth of 1-1/2 inches at a point 1-foot beyond the edge of the excavation and remove the pavement. The concrete pavement may initially be cut at the limits of the excavation by other methods prior to removal and then saw cut after backfilling the excavation. If the saw cut falls within 3 feet of a concrete joint or pavement edge, remove the concrete to the joint or edge.
- C. Make arrangements for and dispose of the removed pavement.
- D. Final pavement saw cuts shall be straight along both sides of trenches, parallel to the pipeline alignment, and provide clean, solid, vertical faces free from loose material. Saw cut and remove damaged or disturbed adjoining pavement. Saw cuts shall be parallel to the pipeline alignment or the roadway centerline or perpendicular to same.

3.03 PAVEMENT REPLACEMENT

Backfill, compaction, and the permanent paving, except for the final asphalt surface course, shall be complete at all times to a point not to exceed 420 feet behind pipelaying. The final asphalt surface course shall be 1-inch thick. Do not place final surface course until all pipelines and appurtenances have been installed within the roadway or as directed by the District's Representative to maintain traffic safety. After the base course of asphalt concrete pavement has been completed, place temporary striping in the same configuration as the existing permanent striping so that traffic can be returned to normal patterns. This striping shall be considered temporary and is the Contractor's responsibility to place and maintain.

3.04 INSTALLATION

Producing, hauling, placing, compacting, and finishing of asphalt concrete shall conform to Section 302-5 of the Public Works Specifications "GREENBOOK." Apply seal coat to all paving.

3.05 PREPARATION OF SUBGRADE

Compact the top 6 inches of subgrade to 95% relative compaction. Remove all soft material disclosed by the compacting and replace with suitable material and recompact. The finished subgrade shall be within a tolerance of ± 0.08 of a foot and shall be smooth and free from irregularities and at the specified relative compaction. The subgrade shall be considered to extend over the full width of the base course.

3.06 PLACING AGGREGATE BASE COURSE

Place aggregate base course to a thickness of 6 inches or to the standards of the agency having jurisdiction over the area of the work. Compact to 95% relative compaction. Install in accordance with Section 301-2 of the Public Works Specifications "GREENBOOK."

3.07 COMPACTION OF AGGREGATE BASE AND LEVELING COURSES

Compaction and rolling shall begin at the outer edges of the surfacing and continue toward the center. Apply water uniformly throughout the material to provide moisture for obtaining the specified compaction. Compact each layer to the specified relative compaction before placing the next layer.

3.08 PLACING PRIME COAT

Apply prime coat to the surface of the leveling course of aggregate base at the rate of 0.25 gallon per square yard per Section 302-5.2 of the Public Works Specifications "GREENBOOK."

3.09 PLACING TACK COAT

Apply tack coat on both horizontal and vertical surfaces to receive finish pavement per Section 302-5.3 of the Public Works Specifications "GREENBOOK." Apply tack coat to concrete surfaces that will be in contact with the asphalt concrete paving.

3.10 PLACING ASPHALT PAVING

Place asphalt paving to a total thickness of 4 inches or 1-inch thicker than adjacent pavement section, whichever is greater or to the standards of the agency having jurisdiction over the area of the work. Install in accordance with Section 302-5 of the Public Works Specifications "GREENBOOK."

3.11 COMPACTION OF ASPHALT CONCRETE PAVING

Compact until roller marks are eliminated and a minimum density of 92% has been attained per ASTM D 2041.

3.12 SURFACE TOLERANCE

Finished grade shall not deviate more than 0.02 of a foot in elevation from the existing surface.

3.13 APPLYING SEAL COAT

Apply seal coat at the rate of 0.10 to 0.15 gallon per square yard and spread a cover coat of sand at the rate of 6 to 12 pounds per square yard. Remove excess sand after 5 days. Apply per Section 302-5.10 in the Regional Supplement Amendments of the Public Works Specifications "GREENBOOK."

3.14 APPLYING PAVEMENT STRIPING AND MARKINGS

Apply traffic striping, markings, and all other directional information to new paved surfaces and existing surfaces that were damaged by the construction. Use traffic paint that matches the color of the existing traffic striping and markings. Apply per Section 310-5.6 of the Public Works Specifications "GREENBOOK." Wait a minimum of 10 days between the seal coat application and permanent traffic striping and markings. Apply a second coat of paint to all areas where the first coat of paint bled, curled, or discolored.

3.15 INSTALLING REFLECTIVE PAVEMENT MARKERS

After the application of all pavement striping and markings, install markers on new paved surfaces and existing surfaces that were damaged by the construction. Use markers that are reflective and match the color or combination of colors of the existing markers within the area of work. Install markers along the alignment and match spacing of the existing, as directed by the District's Representative, and in accordance with Section 85 of the State Standard Specifications.

3.16 INSTALLING FIRE HYDRANT MARKERS

Install a blue reflective marker opposite each new or relocated fire hydrant. Place the marker on the pavement and locate 6 inches off the centerline of the traffic striping or reflective pavement markers towards the hydrant. Install markers in accordance with Section 85 of the State Standard Specifications. Where existing fire hydrants have been relocated or removed from service, dislodge the existing blue marker from the pavement and dispose.

END OF SECTION

EXHIBIT A: TRANSMITTAL PAGE ONE – IFB RESPONSE FORMS**TO:** Orange County Fire Authority**FROM:** PCN3, INC.

(Legal Name of Contractor)

PROJECT: Fire Training Structure Improvements at the OCFA Regional Fire Operations & Training Center

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 G: Schedule of Values):

BID LUMP SUM:**NUMERICAL:**

\$

1,358,850.⁰⁸**WRITTEN:**one million Three hundred FIFTY eight Thousand
EIGHT hundred FIFTY dollars and eight Cents**ACKNOWLEDGMENT OF ADDENDA:**

No.: 1 Dated: September 17, 2020 No.: _____ Dated: _____
No.: _____ Dated: _____ No.: _____ Dated: _____

BIDDER'S CHECKLIST:

Bidder certifies that the following documents are included in Bid:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Transmittal Page (Exhibit A) | <input checked="" type="checkbox"/> List of Subcontractors (Exhibit E) | <input checked="" type="checkbox"/> Project Approach and Schedule (Exhibit H) |
| <input checked="" type="checkbox"/> Bidder's Bond (Exhibit B) | <input checked="" type="checkbox"/> Certification of Site Examination (Exhibit F) | <input checked="" type="checkbox"/> List of Past Projects References (Exhibit I) |
| <input checked="" type="checkbox"/> Certification of Bid (Exhibit C) | <input checked="" type="checkbox"/> Schedule of Values (Exhibit G) | <input checked="" type="checkbox"/> List of Current Projects (Exhibit J) |
| <input checked="" type="checkbox"/> Contractor's Licensing Statement (Exhibit D) | | |

MINIMUM QUALIFICATIONS:

Bidder Meets the Minimum Qualifications as follows:

CSLB License #: 786518 Expiration: 10/31/2022DIR Registration #: 1000007827 Expiration: 6/30/2022Number of Years of Experience: 21 yrs.**SIGNATURE OF CONTRACTOR:****PRINTED NAME:**Brian Abghari**TITLE:**President

EXHIBIT B: 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, PCN3, Inc as Principal ("Principal"), and United States Fire Insurance Company as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of Delaware 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 Oblige, in the sum of Ten percent of the total bid amount Dollars (\$ 10.0% of 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 Oblige becoming effective, or if the Principal shall fully reimburse and save harmless the Oblige from any damage sustained by the Oblige 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 Oblige 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 Oblige and judgment is recovered, the Surety shall pay all costs incurred by the Oblige 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 (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 15th day of September, 2020, 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)

PCN3, Inc

Principal

By

Print Name and Title of Signatory

Brian Abgiori / President

SURETY:

(Affix Corporate Seal)

United States Fire Insurance Company

Surety

By Vanessa Copeland, Attorney-in-fact

Pinnacle Surety & Insurance Services

Name of California Agent of Surety

151 Kalmus Dr., Ste A201, Costa Mesa, CA 92626

Address of California Agent of Surety

(714)546-5100

Telephone Number of California Agent of Surety

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

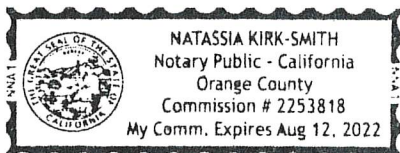
CIVIL CODE 1189

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 Orange)

On 9/15/20 before me, Natassia Kirk-Smith, Notary Public,
personally appeared Vanessa Copeland
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.



Place Notary Seal Above

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: Natassia Kirk-Smith
Signature of Notary Public

OPTIONAL

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

Description of Attached Document

Type or Title of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Vanessa Copeland

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

Signer Is Representing: _____

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: _____

Signer Is Representing: _____

**POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY**

01016

KNOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint:

Eric Lowey, Mark Richardson, Vanessa Copeland, Kevin Cathcart, Shawn Blume

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties not exceeding: **Fifty Million Dollars (\$50,000,000).**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

This Power of Attorney revokes all previous Powers of Attorney issued on behalf of the Attorneys-In-Fact named above and expires on January 31, 2021.

This Power of Attorney is granted pursuant to Article IV of the By-Laws of United States Fire Insurance Company as now in full force and effect, and consistent with Article III thereof, which Articles provide, in pertinent part:

Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

- (a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;
- (b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 10th day of March, 2016.

UNITED STATES FIRE INSURANCE COMPANY



ARR

Anthony R. Slimowicz, Executive Vice President

State of New Jersey }
County of Morris }

On this 10th day of March 2016, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

**SONIA SCALA
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 3/25/2024
No. 2163686**

Sonia Scala

Sonia Scala (Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 15th day of September 20 20

UNITED STATES FIRE INSURANCE COMPANY



Peter M. Quinn

Peter M. Quinn, Senior Vice President

STATE OF CALIFORNIA
DEPARTMENT OF INSURANCE
SAN FRANCISCO

NO 07812

Certificate of Authority

THIS IS TO CERTIFY THAT, Pursuant to the Insurance Code of the State of California,

United States Fire Insurance Company

of Wilmington, Delaware, organized under the
laws of Delaware, subject to its Articles of Incorporation or
other fundamental organizational documents, is hereby authorized to transact within the State, subject to
all provisions of this Certificate, the following classes of insurance: Fire, Marine,

Surety, Disability, Plate Glass, Liability, Workers' Compensation,

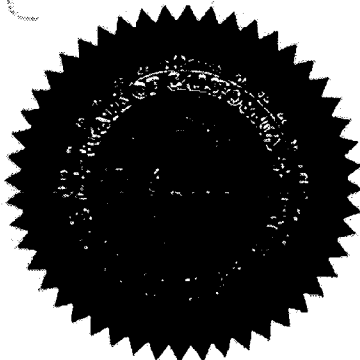
Common Carrier Liability, Boiler and Machinery, Burglary, Credit,

Sprinkler, Team and Vehicle, Automobile, Aircraft, and Miscellaneous

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 31st
day of December, 2003, I have hereunto
set my hand and caused my official seal to be affixed this
31st day of December, 2003.



By

John Garamendi
Insurance Commissioner

Victoria S. Sidbury
for Ida Zodrow, Deputy
Asst. Chief 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 Insurance Code Section 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.

EXHIBIT C: CERTIFICATION OF BID

In responding to IFB SK2462 Fire Training Structure Improvements, 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 Construction Services Agreement (Attachment One), 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 Attachment One.
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.
11. Bidder shall declare that the only persons or parties interested in the proposal as principals are those named therein; that no officer, agent, or employee of the OCFA is personally interested, directly or indirectly, in the proposal; that the proposal is made without connection to any other individual, firm, or corporation making a bid for the same work; and that the proposal is in all respects fair and without collusion or fraud.

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: PCN3, INC.SIGNATURE OF CONTRACTOR: PRINTED NAME: Brian Abghari TITLE: PresidentCONTRACTOR ADDRESS: 11082 Winners Circle, Unit # BCITY: Los Alamitos STATE: CA ZIP CODE: 90720

IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:

NAME OF CORPORATION: PCN3, INC.DATE OF INCORPORATION: 4/16/1999PRESIDENT: Brian Abghari TREASURER: Brian AbghariSECRETARY: Brian Abghari MANAGER: Brian Abghari

EXHIBIT D: 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: 786518 **CLASS:** A,B,C10 and C51 **EXPIRATION:** 10/31/2022

CA DIR REGISTRATION NUMBER: 1000007827 **EXPIRATION:** 6/30/2022

CONTRACTOR TELEPHONE: (562) 493-4124 ex. 405 **CONTRACTOR FAX:** (562) 493-4129

BUSINESS

ADDRESS: 11082 Winners Circle, Unit # B, Los Alamitos, CA 90720

LENGTH OF TIME IN BUSINESS: 21 yrs.

LENGTH OF TIME AT CURRENT LOCATION: 3 Months

NUMBER OF EMPLOYEES: 60 **NUMBER OF CURRENT CLIENTS:** 8

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: PCN3, INC.

CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF CALIFORNIA:


SIGNATURE OF CORPORATION PRESIDENT
SIGNATURE OF THE CORPORATION SECRETARY9/18/20 DATE*Management person responsible for direct contact with OCFA:*

NAME: _____ TITLE: _____

TELEPHONE: _____ E-MAIL: _____

Person responsible for the day-to-day servicing of the account/project.

NAME: _____ TITLE: _____

TELEPHONE: _____ E-MAIL: _____

EXHIBIT E: 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.**

Subcontractor Name:	<u>WHP Training Towers</u>	Location:	<u>9130 Flint ST, overland Park</u>
Portion of Work:	<u>Thermal Lining</u>	Trade:	<u>Thermal Lining</u>
Bid Amount:	<u>\$ 178,664.00</u>		
Contractor's License Number:	<u>865784</u>	DIR Number:	<u>1000031514</u>
Subcontractor Name:	<u>KFT Fire Trainer, LLC</u>	Location:	<u>17 Philips Parkway Montvale</u>
Portion of Work:	<u>Simulator/Training/props</u>	Trade:	<u>Simulator/props/Training</u>
Bid Amount:	<u>\$ 495,650.00</u>		
Contractor's License Number:	<u>912139</u>	DIR Number:	<u>1000044756</u>
Subcontractor Name:	<u>PolyGon BUILDERS INC</u>	Location:	<u>7108 Katella Ave #460</u> ^{5 Stanton 90680 CA}
Portion of Work:	<u>Paint + Masonry</u>	Trade:	<u>Paint + Masonry</u>
Bid Amount:	<u>\$ 70,000</u>		
Contractor's License Number:	<u>1014707</u>	DIR Number:	<u>1000058009</u>

EXHIBIT F: CERTIFICATION OF SITE EXAMINATION

Signature below certifies 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: September 16, 2020 @ 2PM

Company Name: PCN3, INC.

Signature: _____

Printed Name / Title of Company Representative: Brian Abghari, President,

Date: _____

9/22/20

EXHIBIT G: SCHEDULE OF VALUES

Bidder must download and complete Exhibit G: Schedule of Values, and submit with Bid documents. Exhibit G: Schedule of Values is attached separately and is available for download as a Microsoft Excel file via the "Documents" tab of the PlanetBids website. **Failure to complete and submit the Schedule of Values will result in the bid being deemed non-responsive.**

EXHIBIT G: SCHEDULE OF VALUES

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.

Instructions - Input your information in the red-outlined cells as follows:

- Insert a description for each Line Item
- Insert the quantities for each Line Item
- Where applicable, insert the unit of measure for each Line Items (i.e. hour, each, lot, foot, etc.)
- Insert additional line items under each category as needed
- Note whether line item is taxable or non-taxable
- Calculate sales tax for all taxable items

NOTE: Totals will calculate automatically; be sure to verify that all totals have calculated correctly

CATEGORY I: Labor Classifications (Prevailing Wage)							
Line Item	Description	Qty (#)	Unit		Rate per Hour	Total	Taxable (Y/N)
1	Division 2 - Demo	266.25	Hour	X	\$100.00	\$26,625.00	N
2	Division 3 - Concrete	52.38	Hour	X	\$100.00	\$5,237.50	N
3	Division 4 - Masonary	273.25	Hour	X	\$100.00	\$27,325.00	N
4	Division 5 - Metal	707.66	Hour	X	\$100.00	\$70,766.40	N
5	Division 6 - Framing	399.80	Hour	X	\$100.00	\$39,980.00	N
6	Divison 7 - Roofing and Insulation	101.50	Hour	X	\$100.00	\$10,150.00	N
7	Division 8 - Door, Frame & Hardware	22.80	Hour	X	\$100.00	\$2,280.00	N
8	Division 9 - Paint & Exterior Cement Board	295.08	Hour	X	\$100.00	\$29,508.00	N
9	Division 11 - High Temperature Lining Systems	611.13	Hour	X	\$100.00	\$61,113.00	N
10	Division 13 - Simulators / Fire Trainers / Props	992.00	Hour	X	\$100.00	\$99,200.00	N
11		0.00	Hour	X	\$100.00		N
12		0.00	Hour	X	\$100.00		N
13		0.00	Hour	X	\$100.00		N
14		0.00	Hour	X	\$100.00		N
CATEGORY II: Permanent & Non-Permanent Materials Supplies							
Line Item	Description	Qty (#)	Unit		Price/Unit	Total	Taxable (Y/N)

EXHIBIT G: SCHEDULE OF VALUES

1	Division 2 - Demo	1.00	LS	X	\$3,550.00	=	\$3,550.00	N
2	Division 3 - Concrete	1.00	LS	X	\$4,190.00	=	\$4,190.00	N
3	Division 4 - Masonary	1.00	LS	X	\$16,395.00	=	\$16,395.00	N
4	Division 5 - Metal	1.00	LS	X	\$88,458.00	=	\$88,458.00	N
5	Division 6 - Framing	1.00	LS	X	\$31,984.00	=	\$31,984.00	N
6	Divison 7 - Roofing and Insulation	1.00	LS	X	\$8,120.00	=	\$8,120.00	N
7	Division 8 - Door, Frame & Hardware	1.00	LS	X	\$19,380.00	=	\$19,380.00	N
8	Division 9 - Paint & Exterior Cement Board	1.00	LS	X	\$36,885.00	=	\$36,885.00	N
9	Division 11 - High Temperature Lining Systems	2741.00	SQFT	X	\$42.89	=	\$117,551.00	N
10	Division 13 - Simulators / Fire Trainers / Props	1.00	LS	X	\$372,000.00	=	\$372,000.00	N
11		1.00	LS	X	\$0.00	=		N
12		1.00	LS	X	\$0.00	=		N
13		1.00	LS	X	\$0.00	=		N
14		1.00	LS	X	\$0.00	=		N
15		1.00	LS	X	\$0.00	=		N

CATEGORY III: EQUIPMENT

Line Item	Description	Qty (#)	Unit		Price/Unit		Total	Taxable (Y/N)
1	Division 2 - Demo	1.00	LS	X	\$5,325.00	=	\$5,325.00	N
2	Division 3 - Concrete	1.00	LS	X	\$1,047.50	=	\$1,047.50	N
3	Division 4 - Masonary	1.00	LS	X	\$10,930.00	=	\$10,930.00	N
4	Division 5 - Metal	1.00	LS	X	\$17,691.60	=	\$17,691.60	N
5	Division 6 - Framing	1.00	LS	X	\$7,996.00	=	\$7,996.00	N
6	Divison 7 - Roofing and Insulation	1.00	LS	X	\$2,030.00	=	\$2,030.00	N
7	Division 8 - Door, Frame & Hardware	1.00	LS	X	\$1,140.00	=	\$1,140.00	N
8	Division 9 - Paint & Exterior Cement Board	1.00	LS	X	\$7,377.00	=	\$7,377.00	N
9	Division 11 - High Temperature Lining Systems	1.00	LS	X	\$0.00	=	\$0.00	N
10	Division 13 - Simulators / Fire Trainers / Props	1.00	LS	X	\$24,800.00	=	\$24,800.00	N
11		1.00	LS	X	\$0.00	=		N
12		1.00	LS	X	\$0.00	=		N

EXHIBIT G: SCHEDULE OF VALUES

13		1.00	LS	X	\$0.00	=		N
14		1.00	LS	X	\$0.00	=		N
15		1.00	LS	X	\$0.00	=		N

CATEGORY IV: OVERHEAD & INDIRECT COSTS

Line Item	Description	Qty (#)	Unit		Price/Unit		Total	Taxable (Y/N)
1	Bond & Insurance	1.00	LS	X	\$41,100.00	=	\$41,100.00	N
2	Mobilization	1.00	LS	X	\$10,275.00	=	\$10,275.00	N
3	Project Management	1.00	LS	X	\$60,000.00	=	\$60,000.00	N
4	Submittals	1.00	LS	X	\$22,500.00	=	\$22,500.00	N
5	SWPPP and Surveying	1.00	LS	X	\$10,000.00	=	\$10,000.00	N
6	Punchlist & Close out	1.00	LS	X	\$7,425.00	=	\$7,425.00	N
7		1.00	LS	X	\$0.00	=	\$0.00	N
8		1.00	LS	X	\$0.00	=	\$0.00	N
9		1.00	LS	X	\$0.00	=	\$0.00	N
10		1.00	LS	X	\$0.00	=	\$0.00	N

PROJECT SUBTOTAL: \$1,300,335.00

CATEGORY V: PROFIT

Line Item	Description	% Profit	Total	Taxable (Y/N)
1	Provide the percentage of the project subtotal (above) that will be assessed as profit.	4.50%	\$58,515.08	N

APPLICABLE SALES TAX @ 7.75%:

GRAND TOTAL: \$1,358,850.08

Detailed Labor and Fee Breakdown
Orange County Fire Authority
SK2452 - Fire Training Structure Improvements at the OCFA RFOTC Drill Grounds
PLEASE VERIFY PROPER CALCULATION

LABOR RATES FEE SCHEDULE

PROJECT FEE BY TASK AND PERSONNEL			Classification 1 (Ex. Electrical)				Discipline 2 (Ex. Structural)				Discipline 3 (Ex. Drainage)				Discipline 4 (Ex. Survey)				QA/QC	Chief / Administrative	TOTAL HOURS PRIME CONSULTANT	TOTAL FEE Prime Consultant Name	TOTAL FEE Sub Consultant 1 Discipline: Masonry (Ex. Construction)	TOTAL FEE Sub Consultant 2 Discipline: Fire Fighting / Simulators	TOTAL FEE Sub Consultant 3 Discipline: Roofing	TOTAL PROJECT FEE
Task Description	Project Director/Point of Contact	Project Manager	Title:Electrician	Title:	Title:	Title:	Title:Carpenter	Title:Ironworker	Title:Concrete Mason	Title:Joiner	Title:Plumber	Title:	Title:	Title:	Title:Surveyor	Title:	Title:	Title:								
Fully Burdened Hourly Rate: \$ 150.00 \$ 100.00 \$ 100.00 \$ - \$ - \$ - \$ 100.00 \$ 100.00 \$ 100.00 \$ 100.00 \$ 100.00 \$ - \$ - \$ - \$ 100.00 \$ - \$ - \$ - \$ - \$ -																					\$ -	\$ -	\$ -	\$ -	\$ -	
TOTAL ESTIMATED FEE FOR PREVAILING WAGE RELATED ACTIVITIES																										
TASK 1 (Add additional Sub-tasks as needed): Demo																										
Task 1.1 All Demo											266										266	\$ 26,625.00	\$ -	\$ -	\$ -	\$ 26,625.00
Task 1.2 N/A											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
Task 1.3 N/A											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	266	0	0	0	0	0	0	0	0	0	266	\$ 26,625.00	\$ -	\$ -	\$ -	\$ 26,625.00
TASK 2 (Add additional Sub-tasks as needed): Concrete																										
Task 2.1 All Concrete											82										82	\$ 5,237.50	\$ -	\$ -	\$ -	\$ 5,237.50
Task 2.2 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
Task 2.3 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	82	0	0	0	0	0	0	0	0	0	82	\$ 5,237.50	\$ -	\$ -	\$ -	\$ 5,237.50
TASK 3 (Add additional Sub-tasks as needed): Masonry																										
Task 3.1 All Masonry											273										273	\$ -	\$ 27,325.00	\$ -	\$ -	\$ 27,325.00
Task 3.2 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
Task 3.3 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	273	0	0	0	0	0	0	0	0	0	273	\$ -	\$ 27,325.00	\$ -	\$ -	\$ 27,325.00
TASK 4 (Add additional Sub-tasks as needed): Steel																										
Task 4.1 All structural and misc steel											708										708	\$ 70,786.40	\$ -	\$ -	\$ -	\$ 70,786.40
Task 4.2 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
Task 4.3 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	708	0	0	0	0	0	0	0	0	0	708	\$ 70,786.40	\$ -	\$ -	\$ -	\$ 70,786.40
TASK 5 (Add additional Sub-tasks as needed): Framing																										
Task 5.1 All Framing											400										400	\$ 39,980.00	\$ -	\$ -	\$ -	\$ 39,980.00
Task 5.2 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
Task 5.3 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0	0	0	0	0	0	0	\$ 39,980.00	\$ -	\$ -	\$ -	\$ 39,980.00
TOTAL LABOR FOR PREVAILING WAGE RELATED ACTIVITIES																										
0 0 0 0 0 0 0 0 400 708 326 266 0 0 0 0 0 0 0 0 0 0 1,300 \$ 142,608.90 \$ 27,325.00 \$ - \$ - \$ 169,933.90																										
Other Direct Costs (Optional): General conditions																										
Task 1 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
Task 2 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
Task 3 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
Task 4 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
Task 5 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL																						\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL ESTIMATED FEE FOR TRAINING, SUPPORT, AND OTHER NON-PREVAILING WAGE RELATED ACTIVITIES																										
\$ 142,608.90 \$ 27,325.00 \$ - \$ - \$ 169,933.90																										
OPTIONAL ITEMS (IF ANY):																										
TASK 6: All Roofing and Insulation																										
Task 6.1 Description											102										102	\$ -	\$ -	\$ -	\$ 10,180.00	\$ 10,180.00
Task 6.2 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
Task 6.3 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	102	0	0	0	0	0	0	0	0	0	102	\$ -	\$ -	\$ -	\$ 10,180.00	\$ 10,180.00
TASK 7: Door / Paint / Cement Board																										
Task 7.1 Door Frame and hardware											23										23	\$ 2,280.00	\$ -	\$ -	\$ -	\$ 2,280.00
Task 7.2 Paint and cement board											295										295	\$ 29,508.00	\$ -	\$ -	\$ -	\$ 29,508.00
Task 7.3 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	318	0	0	0	0	0	0	0	0	0	318	\$ 31,788.00	\$ -	\$ -	\$ -	\$ 31,788.00
TASK 8: Lining / Props / Fire Trainers / simulators																										
Task 8.1 Lining											611										611	\$ -	\$ -	\$ 81,113.00	\$ -	\$ 81,113.00
Task 8.2 Simulators / Props / Fire trainers											992										992	\$ -	\$ -	\$ 99,200.00	\$ -	\$ 99,200.00
Task 8.3 Description											0										0	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	1,603	0	0	0	0	0	0	0	0	0	1,603	\$ -	\$ -	\$ 180,313.00	\$ -	\$ 180,313.00
TOTAL LABOR FOR NON-PREVAILING WAGE RELATED ACTIVITIES																										
0 0 0 0 0 0 0 0 2,023 0 0 0 0 0 0 0 0 0 0 0 0 2,023 \$ 31,788.00 \$ - \$ 180,313.00 \$ 10,180.00 \$ 202,281.00																										
Other Direct Costs (Optional): Permits and fees, inspection and testing, bonds and insurance																										
Task 6 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
Task 7 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
Task 8 Description																						\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL																						\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL ESTIMATED FEE FOR TRAINING, SUPPORT, AND OTHER NON-PREVAILING WAGE RELATED ACTIVITIES																										
\$ 31,788.00 \$ - \$ 180,313.00 \$ 10,180.00 \$ 202,281.00																										
TOTAL ESTIMATED LABOR FEES FOR PREVAILING WAGE AND NON-PREVAILING WAGE ACTIVITIES																										
\$ 174,396.90 \$ 27,325.00 \$ 180,313.00 \$ 10,180.00 \$ 372,184.90																										

EXHIBIT H: PROJECT APPROACH AND TIMELINE

Provide responses to the questions below; the information may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Provide a brief statement with general description of the proposed project approach and identify whether the materials bid are as-specified or will include proposed alternate equivalents.

We will use specified Material on this project per plan and specification.

2. Provide the project phases along with the number of working days required to complete each phase in the table below. Attach additional sheets if necessary.

No.	Project Phase Description	Number of Working Days to Complete
1	De Mo	30
2	structural work	60
3	Installation of Fire Equipment and piping sys.	90
4	Acceptance and operational Instruction	10
Total Working Days to Complete Project:		150

EXHIBIT I: LIST OF PROJECT REFERENCES

The Bidder must demonstrate knowledge of public construction techniques and the performance of similar work for other public agencies. The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.** Attach additional sheets as necessary.

1. Submit documentation demonstrating how Bidder and subcontractors meet the minimum qualifications outlined in §1.4.1, §1.4.2, and §1.4.3.

2. Contractor and all Subcontractors must possess a minimum of ten (10) years' experience providing the same or similar services OR equivalent experience on similar public works projects within the past five (5) years. Describe how Contractor and all Subcontractors meet this requirement (§1.4.4 of this IFB Document).

3. Submit a company history including all business names that the company has offered live fire training equipment under. Provide any and all business names, including acquisitions, and demonstrate experience in coordination, design, installation and training of computerized environment training systems using natural gas fuel for interior applications.

4. Provide a company history including a minimum of ten (10) years offering computerized live fire training systems utilizing natural and natural gas fuels.

5. Provide a complete history of any accidents or incidents, whether they resulted in injury or not, that occurred within or around a training unit produced by the manufacturer offering the equipment. Failure to include all incidents, including operator error or system failures, will be considered non-responsive and may result in rejection of bid. The list shall include any and all equipment produced under any business name (including acquisitions) that the company has done business as (DBA).

6. Provide written documentation of the equipment certification for the completed live fire training equipment offered:

a. Certification from a Nationally Recognized testing Laboratory (NRTL) (Dated within the last 12 months) in compliancy to UL 508A, NFPA 54, 58, 86, and 1402. The NRTL must meet the requirements of OSHA 29 CFR 1910.7.

b. A compliancy letter from an Independent Engineering firm of a completed safety analysis and flame failure analysis of the operational system. The FTA and FFA must be in compliancy with MIL-STD 882D at a minimum.

7. The OCFA expressly reserves the right to reject the bid of any bidder who has failed to complete five (5) similar projects of substantially the same type of work, as stated in Attachment Two, in a timely or satisfactory manner. Provide customer references for five completed projects for which the Bidder has performed similar work within the past ten (10) years. Bidder must utilize the following form for each reference, as stated in Attachment Two:

3.04 REFERENCES**Customer References**

The supplier must utilize this form to supply customer references for each unit. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

B+A- References

see attached for ~~props~~

Department name:	
Address:	
Contact name:	Contact phone #:

Model name/number:	Delivery date:
Type of equipment:	Number of props:

List all props installed including options:

Prop #1	Prop #2	Prop #3	Prop #4	Prop #5
Prop #6	Prop #7	Prop #8	Prop #9	Prop #10

NRTL certifying agency:	Yes	No	Contact Name:	Contact Number:
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3.04 REFERENCES**Customer References**

The Fire Training Equipment Supplier (FTES) must utilize this form to supply customer references as described in paragraph 1.06.A.3. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name: Elk Grove Village Fire Department	
Address: 901 Wellington Avenue, Elk Grove Village, IL 60007	
Contact name: Battalion Chief; Nathan Gac	Contact phone #: 847-734-8025 ngac@elkgrove.org

Model name/number: FireTrainer® T-1000	Delivery date: Completed date: June 2019
Type of equipment: Live Fire Training Simulator	Number of props: 2 & 1 flashover

List all props installed including options:

Prop #1 Stove with Flashover	Prop #2 Bed	Prop #3	Prop #4	Prop #5
Prop #6	Prop #7	Prop #8	Prop #9	Prop #10

NRTL certifying agency:	Yes	No	Contact Name: Hary Braun, Intertek	Contact Number: 908-642-0194
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END OF SECTION

3.04 REFERENCES**Customer References**

The Fire Training Equipment Supplier (FTES) must utilize this form to supply customer references as described in paragraph 1.06.A.3. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name: Tulsa Fire Safety Training Center	
Address: 2819 North New Haven Ave., Tulsa, OK	
Contact name: Cramer, Barrett, Tulsa Chief of Training	Contact phone #: 918-596-9305, barrettcramer@cityoftulsa.org

Model name/number: FireTrainer® T-2000	Delivery date: Completion date: July 2015
Type of equipment: Live Fire Training Simulator	Number of props: 9 and 2 flashovers

List all props installed including options:

Prop #1 Electrical Panel Fire with sound/smoke/ lights & flame	Prop #2 Desk Fire	Prop #3 File Cabinet Fire	Prop #4 Stove & Vent Duct Fires	Prop #5 Kitchen Cabinet Fire with flashover
Prop #6 Queen Bed Fire	Prop #7 Base Cabinet Fires with Flashover	Prop #8 Refrigerator Fire	Prop #9 Hallway Fire	Prop #10

NRTL certifying agency:	Yes	No	Contact Name: Hary Braun, Intertek	Contact Number: 908-642-0194
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END OF SECTION

3.04 REFERENCES**Customer References**

The Fire Training Equipment Supplier (FTES) must utilize this form to supply customer references as described in paragraph 1.06.A.3. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name: Connecticut State Fire Academy	
Address: 34 Perimeter Road, Windsor Locks, Connecticut	
Contact name: Christopher A. Johnston	Contact phone #: 860-627-6363, ext. 232 chris.johnston@po.state.ct.u

Model name/number: FireTrainer® T-1000	Delivery date: Completion date: September 2017
Type of equipment: Live Fire Training Simulator	Number of props: 3

List all props installed including options:

Prop #1 Storage	Prop #2 Couch	Prop #3 Multi-Prop: (Stove, Softa, Bed, Bottle Rack, & Motor Generator)	Prop #4	Prop #5
Prop #6	Prop #7	Prop #8	Prop #9	Prop #10

NRTL certifying agency:	Yes	No	Contact Name: Hary Braun, Intertek	Contact Number: 908-642-0194
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END OF SECTION

3.04 REFERENCES**Customer References**

The Fire Training Equipment Supplier (FTES) must utilize this form to supply customer references as described in paragraph 1.06.A.3. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name: Fairfax County Fire Academy	
Address: 4600 West Ox Road, Fairfax, VA	
Contact name: Chris Theobald	Contact phone #: 703-803-3856 christopher.theobald@fairfaxcounty.gov

Model name/number: FireTrainer® T-500	Delivery date: Completion date: June 2019
Type of equipment: Live Fire Training Simulator	Number of props: 2 and 1 flashover

List all props installed including options:

Prop #1 Sofa Fireplace	Prop #2 Bed Fireplace	Prop #3 Hallway Flashover	Prop #4	Prop #5
Prop #6	Prop #7	Prop #8	Prop #9	Prop #10

NRTL certifying agency:	Yes	No	Contact Name: Hary Braun, Intertek	Contact Number: 908-642-0194
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END OF SECTION

3.04 REFERENCES**Customer References**

The Fire Training Equipment Supplier (FTES) must utilize this form to supply customer references as described in paragraph 1.06.A.3. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name: Next Generation Fire Fighting Trainer, Submarine Learning Center Detachment	
Address: San Diego, CA	
Contact name: Roberto Soto-Albino	Contact phone #: 407-380-4341, attysoto@gmail.com

Model name/number: FireTrainer® T-2000	Delivery date: Completion date: April 2019
Type of equipment: Live Fire Training Simulator	Number of props: 12 and 1 flashover

List all props installed including options:

Prop #1 Oil Spray/Bilge Fireplace	Prop #2 Charcoal Filter Fireplace	Prop #3 Hull Insulation Fireplace	Prop #4 Pump Motor Fireplace	Prop #5 Deep Fat Fryer Fireplace
Prop #6 Oven Fireplace Fireplace	Prop #7 Tech Switchboard Fireplace Fireplace	Prop #8 Large Switchboard Fireplace	Prop #9 Cable Tray 1 Fireplace	Prop #10 Cable Tray 2

Prop #11 - Bunk Bed 1 Fireplace

Prop #12 Bunk Bed 2 Fireplace

NRTL certifying agency:	Yes	No	Contact Name: Hary Braun, Intertek	Contact Number: 908-642-0194
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END OF SECTION



5450 Katella Ave., #101, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

Previous Major Project Experience:

1st Project:

Project Name: Downey Fire Station 1 and 3

Project Location: Downey, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: TBA

Owner: City of Downey

Owner address: 11111 Brookshire Ave., Downey, CA, 90241

Owner telephone #: 949-874-9170

Owners Authorized Rep.: Walt Eden

Architect: West Group Designs

Architect Address: 19520 Jamboree Rd., Suite 100, Irvine, CA, 92612

Architect Tel#: 949-250-0880

Project Description: Renovation and addition of Fire station 1 and 3.

Type of Contract: Fixed Price

Initial Contract Value: \$7,958,000.00

Final Contract Value: \$10,600,000.00

Reason for difference: Due to added scope and unforeseen condition

Percentage Complete: 100%

Contract Start Date: March of 2019

Contract initial completion Date: November of 2019

Final Completion Date: February of 2020

Reason for difference: Due to added scope and unforeseen condition

Assessed Value of Liquidated Damages: None

Number of Legal Claims Incurred: None

Was your contract terminated in full or in part: No

Public bid: Yes

Percent of work subcontracted: 45%

Construction Type: non-rated

Occupancy Category IV: No

Complex Data/telecom/audio visual systems integration: yes



5450 Katella Ave., #101, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

14th project:

Project Name: Fontana Fire Station #73
Project Location: Fontana, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: SB-03-DE-15
Owner: City of Fontana
Owner address: 8353 Sierra Ave., Fontana, CA, 92335
Owner tel #: 909-350-7661
Owners Authorized Rep.: Richard Oaxaca

Architect: WLC Architects Inc.
Architect Address: 8163 Rochester Ave., Suite 100, Rancho Cucamonga, CA, 91730
Architect Tel#: 909-987-0909
Contract Person: Shih-Jing Yen

There was no Construction Manager in this Project

Project Description:

New Fire Station #73 building along with all associated work and street work.

Type of Contract: Fixed Price
Initial in-place –value-of: \$4,832,000.00
Final in-place –value-of: \$4,982,000.00
Reason for difference: added scope of work and unforeseen conditions

Percentage Complete: 100%
Contract Start Date: Oct of 2014
Contract initial completion Date: March of 2016
Final Completion Date: March of 2016
Reason for difference: added scope of work and unforeseen conditions



5450 Katella Ave., #104, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

Previous Major Project Experience:

1st Project:

Project Name: Jurupa Sherriff Station
Project Location: Riverside, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number:

Owner: County of Riverside
Owner address: 3403 Tenth St., Suite 500, Riverside, CA, 92501

Owner telephone #: 951-955-8467
Owners Authorized Rep.: Frank Gonzales

Architect: Holt Architects
Architect Address: 70-225 Highway 111, Suite D, Rancho Mirage, CA, 92270
Architect Tel#: 760-328-5280

Project Description: Construction new storage facility for sheriff station along with mobile storage units for the evidence storage. The scope of work also includes new parking lot for the sheriff department along with upgrade of the existing lobby for the sheriff department.

Type of Contract: Fixed Price
Initial Contract Value: \$3,195,540.00
Final Contract Value: \$3,595,540.00
Reason for difference: extra-work and unforeseen conditions

Percentage Complete: 100%
Contract Start Date: August of 2011
Contract initial completion Date: July of 2012
Final Completion Date: April of 2013
Reason for difference: extra-work and unforeseen conditions

Assessed Value of Liquidated Damages: None
Number of Legal Claims Incurred: None
Was your contract terminated in full or in part: No
Public bid: Yes
Percent of work subcontracted: 21%
Construction Type: V-1hour rated
Occupancy Category IV: No



5450 Katella Ave., #101, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

Complex Data/telecom/audio visual systems integration: no
9th Project:

Project Name: Fontana Police Station – EOC Renovation
Project Location: Fontana, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number:

Owner: City of Fontana
Owner address: 8353 Sierra Ave., Fontana, CA, 92335
Owner telephone #: 619-980-7048
Owners Authorized Rep.: George Litzinger

Architect: Holt Architects
Architect Address: 70225 CA-111, Rancho Mirage, CA, 92270
Architect Tel#: 760-328-5280

Project Description: The Work includes the complete tentative improvement lobby and secured area for Fontana Police Department

Type of Contract:	Fixed Price
Initial Contract Value:	\$1,373,00.00
Final Contract Value:	\$1,623,000.00
Reason for difference:	Due to added scope of work

Percentage Complete:	100%
Contract Start Date:	June of 2017
Contract initial completion Date:	December of 2017
Final Completion Date:	March of 2018
Reason for difference:	Due to added scope of work

Assessed Value of Liquidated Damages: None
Number of Legal Claims Incurred: None
Was your contract terminated in full or in part: No
Public bid: Yes
Percent of work subcontracted: 40%
Construction Type: V-1hour rated
Occupancy Category IV: No
Complex Data/telecom/audio visual systems integration: Yes

EXHIBIT J: LIST OF CURRENT PROJECTS

The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

Project Name	Description of Bidder's Work	Completion Date	Project Cost
CalTrans Maintenance Station Building	New Maintenance Station Building at CalTrans Station at 175 west Cluster street	December of 2020	\$4,296,000.00
Fire Station No. 2	Comprises demolition of existing single - story Apparatus Bay and construction of a replacement Apparatus Bay, a new exercise room, interior renovation, and associated site work for Fire Station No.2 located in Orange, CA for the City of Orange.	October of 2020	\$1,986,000.00
Fryberger Elementary School -HVAC	Modernization to Hayden Elementary School for Westminster School District	April of 2021	\$4,748,000.00
Helen Stacey MS Central Kitchen Renovation	Renovation of Kitchen at Helen Stacey Middle School	September of 2020	\$1,000,000.00
Martin Luther king MS Mod	Renovation of Martin Luther Middle School	May of 2021	\$3,000,000.00
Oceanside Beachfront Improvements	Modernization of the beachfront and restrooms in Oceanside, CA	October of 2021	\$9,268,000.00
Thurston Middle School Field & Classroom Modernization Bid Phase 1	Modernization of Thurston Middle School	April of 2021	\$769,000.00

EXHIBIT J: LIST OF CURRENT PROJECTS*for KFT Fire Trainers, LLC*

The information provided below may be used to determine the responsibility of Bidder's submittal, as stated in §3.22 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

Project Name	Description of Bidder's Work	Completion Date	Project Cost
Defence Construction Canada	Remove and Replace all Existing Fireplaces	11/30/20	\$1.5M
NAS Jacksonville	New T-500 Fireplace	10/31/20	\$2M
Truck Chile	New Mobile Fire Trainer	3/31/21	\$5M
Connecticut State Fire Academy	New T-1000 Fireplace	9/30/20	\$25M
Palm Beach Gardens	New T-1000 Fireplaces	9/30/20	\$25M
Helena ARFF	Existing ARFF Fire Training Equipment Recapitalization	3/31/21	\$4.6M
Armasuisse	Multiple Fire Trainers throughout the Fire Training Facility	10/31/21	\$4.4M
Armasuisse	Multiple Fire Trainers throughout the Fire Training Facility	10/31/21	\$2.2M
Aviano	Aircraft Fire Trainer	10/31/21	\$1.2M
French SDIS 44	Multiple Fire Trainers throughout the Fire Training Facility	8/31/21	\$1.7M
RAAF Amberley	Aircraft Fire Trainer	10/31/21	\$3M
RAF Shawbury	Aircraft Fire Trainer	10/31/21	\$3M
TX City	Multiple Fire Trainers throughout the Fire Training Facility	10/31/21	\$7M
<i>An Additional list of smaller upgrades and new projects are available upon request</i>			



ORANGE COUNTY FIRE AUTHORITY

FPWB SK2462 – Addendum 1

Fire Training Structure Improvements – RFOTC

September 17, 2020

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 drawings as requested.

Answers to questions during the job-walk and Q&A period:

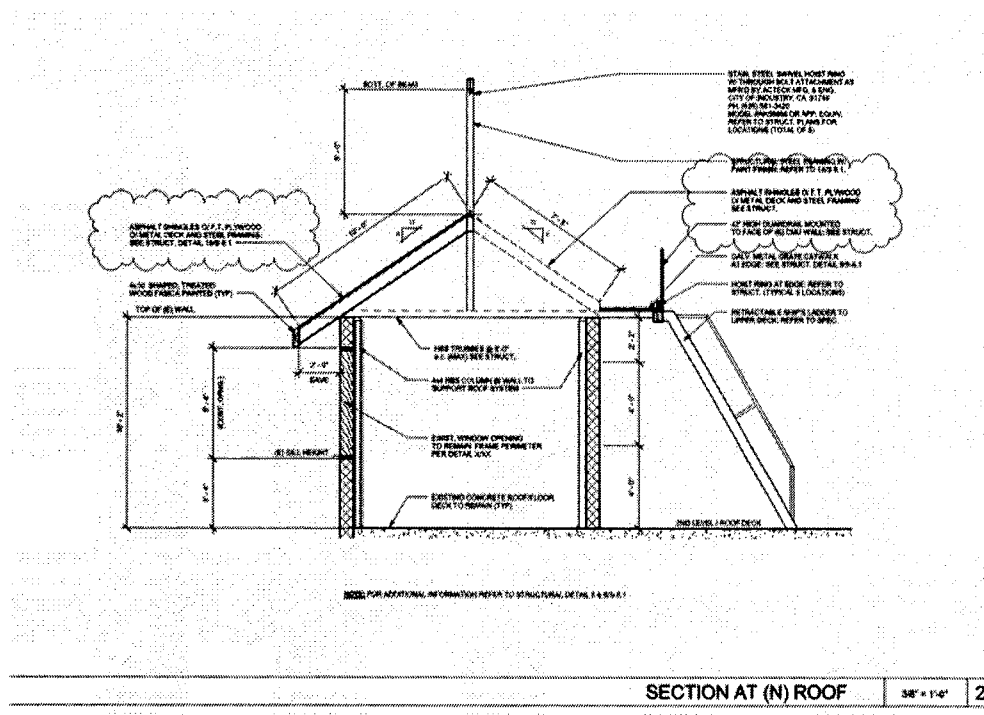
- 1) **QUESTION:** Will today's meeting attendance be made available?
RESPONSE: The attendance sheet is an attachment to this addendum.
- 2) **QUESTION:** What is the engineer's estimate for this project?
RESPONSE: \$1,464,835 as attached.
- 3) **QUESTION:** Sheet M-CVR, Sheet Index, is listing the drawings to include sheets S-9.1, S-9.2 & S-9.3. These sheet are not included with the plans available on PlanetBids. Please provide these missing pages.
RESPONSE: These drawings/details are not a part of this project and will not be included.
- 4) **QUESTION:** Sheet T1-A2, Notes A20 & A21 are calling out for new roof systems to be built. The details for the A20 roof system. Details 2/T1-A4 and Detail 18/S-6.1 are only calling out for FT plywood over metal decking. The details for the A21 Roof System, Details 1/T1-A4 & Detail 1/TD-3 states Asphalt Shingles over FT plywood over metal decking. The isometric drawings for all three areas appear to look the same, shingles.
 - a. Please clarify whether or not all three areas are to receive shingles.
 - b. If shingles are required at any location, please provide a specification for the desired shingles.

RESPONSE: The pitched roof at the Strip Mall shall have asphalt shingles on both north and south sloping surfaces with the exception of the four (4) framed openings on south slope per detail 2/S-6.2.

The asphalt shingles shall be:

Malarkey Roofing Products; "Highlander® 271": ASTM D3018 Type I - Self-Sealing; ASTM D3161 Type I, ASTM D3462, and Class A Fire Resistance. Glass Fiber Mat Base; Ceramically colored/UV resistant mineral surface granules across entire face of shingle; No cut-out design with random color palettes in a double thickness and continuous shadow line.

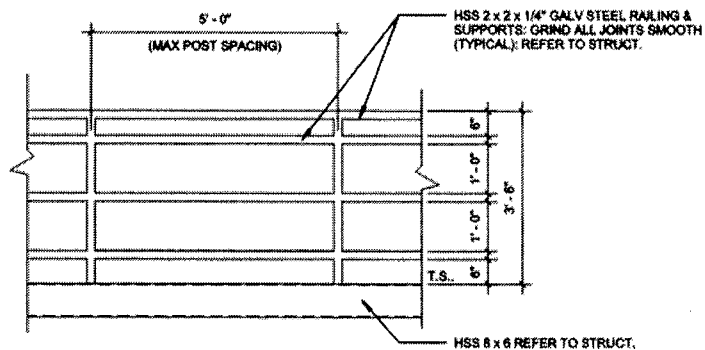
Color	To be selected from manufacturer's list of standard colors
Tile Size:	Width: 13-1/4" x Length 40"
Weight:	242 Lbs.
Exposure	5-5/8"
Granule Adhesion:	0.45g



Section at Strip Mall New Elevated Roof

- 5) **QUESTION:** Sheet T1-A3, Note A6 is calling for a new concrete roof deck system and to refer to Detail 2/T1-A4. Sheet T1-A4, Detail 2 is calling out for a new 42" high guardrail and to see the structural drawings for more details. Sheet S-6.1, Detail 9 is showing this guard railing. This detail does not provide any information as to what material, location (horizontal or vertical) or spacing requirements for the pickets. Please provide a detail with the desired picket information provided. Also Note A6 on Sheet T1-A3 is calling for a new "Concrete" roof deck system. I don't see any call out for a concrete decking or roof tiles? Please advise.

RESPONSE: Guardrail: Per structural detail 9/S-6.1, vertical members are to be HSS 2 x 2 x 1/4", with maximum spacing of 5'-0" oc. Horizontal members to be 2 x 2 x 1/4". Per notes, all steel shall have galvanized finish. Refer to structural detail for welding.

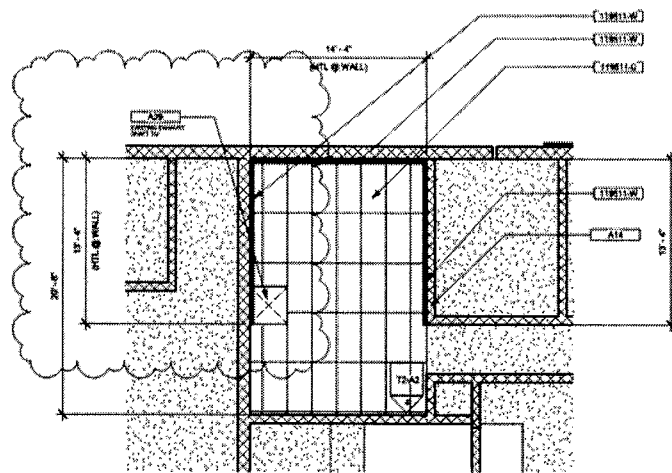


Elevation of Guardrail at Roof

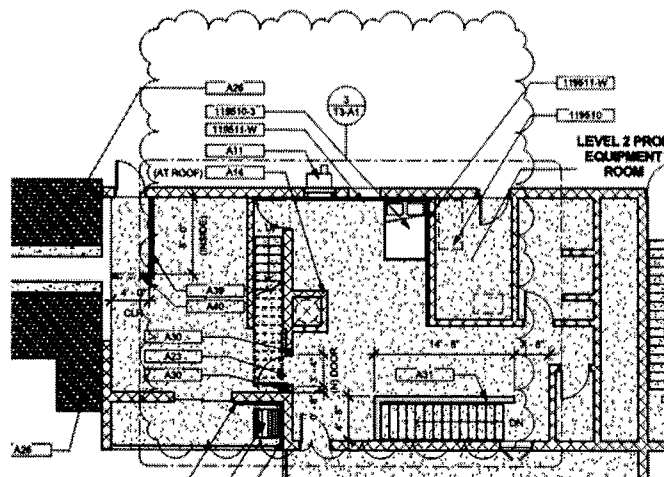
- 6) **QUESTION:** Sheet T3-A3, Note A11 is calling out for a new emergency exhaust fan but there are no mechanical or electrical drawings provided for this new fan. There are no sizes provided, no structural details for the new opening needed in the CMU wall for this fan and no specifications. Please provide all of this required information for the new proposed emergency exhaust fan.

RESPONSE: Emergency exhaust fans are part of the live fire prop systems to be provided for by prop vendor. Power for exhaust fan is existing at each fan location. Refer to specification section 11 95 10 for additional information.

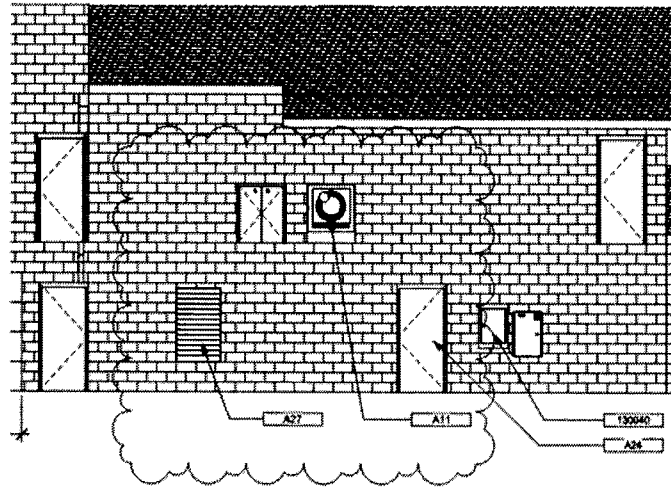
The 1st floor Kitchen Fire prop shall utilize the existing ceiling exhaust shaft to the rooftop exhaust fan. The 2nd floor Bedroom Fire prop shall utilize a new wall-mount style exhaust fan set in the existing window system which has been abandoned and not in use. The entire east wall shall have high temperature lining as shown, except for the required wall louver opening and the new wall emergency exhaust fan.



1st Floor Kitchen Fire Ceiling Plan



2nd Floor Bedroom Fire Floor Plan



Tower Exterior East Elevation

- 7) **QUESTION:** Sheet M-SITE, Note 11 is calling out for "Relocated existing light pole with new concrete base". I am assuming this is the light pole called out to be salvaged on Sheet S-00, Note D19. But it is referring us to Detail X/XX? Please provide missing detail. Also, there is no electrical plan provided showing where power is running to/from. Please provide an electrical drawing showing the power requirements for this light pole and its source and route.

RESPONSE: Light pole referenced by keynote #11 will be relocated under a separate contract not a part of this work.

- 8) **QUESTION:** Sheet M-SITE, Note 07 is calling out "New concrete slab & foundation" There is no information or details regarding the slab or foundation requirements nor the grading/over-excavation requirements. Please provide structural details, elevations and soils report/grading prep requirements for the desired slab & foundation.

RESPONSE: These drawings/details are not a part of this project and will not be included.

- 9) **QUESTION:** Sheet T1-A1, T2-A1 & T3-A1 are calling out for new Gas Meter and Electrical Panel Live Fire Props and a New Office Desk Live Fire Prop. There are no plumbing or electrical plans provided showing new gas lines or power requirements for these devices. Please advise if we are to include any and if so, please provide a plumbing and electrical plan depicting these requirements and the source location(s) we are to tie into.

RESPONSE: All new live fire and non-fire props identified shall utilize the existing power and natural gas infrastructure located within the existing facility prop equipment rooms and at the existing rooftop exhaust fans. Per the specifications, it will be the responsibility of the prop vendor to extend the necessary services from the nearest/adjacent prop equipment rooms or junction box locations to the points of connection using properly licensed subcontractors for the work required.

- 10) **QUESTION:** What additional permits are required?

RESPONSE: To the best of OCFA's knowledge, only the City of Irvine building permit is required. However, the GC will be responsible for any City of Irvine permits and fees for traffic control plans, business licenses, etc. as required. Any smoke and emissions permits are covered under OCFA's existing SCAQMD burn permit.

11) **QUESTION:** Can you clarify the required criteria/training for the forcible entry doors? Swinging in, swinging out, etc.

RESPONSE: Forcible entry doors shall be of outswing types per detail referenced.

12) **QUESTION:** How many burners (located within the props) are required in each room?

RESPONSE: Refer to Specification Section 11 95 10, paragraph 2.01.D for "General Prop Descriptions" as follows:

<i>1st Floor Kitchen:</i>	<i>Single burner with flare-up feature</i>
<i>2nd Floor Bedroom</i>	<i>Single burner mock-up with overhead roll-over/flashover</i>
<i>3rd Floor Office</i>	<i>Single burner desk with secondary extension rollover</i>
<i>3rd Floor BBQ</i>	<i>Single burner</i>

13) **QUESTION:** How should High Temperature Lining be priced? Per square foot or lump sum for total coverage? If lump sum for total coverage, should a lining deduct (per square foot) be provided for unused material?

RESPONSE: Please price the total square footage of High Temperature Lining (Engineer's Estimate is based on total square footage required for the project) and provide a cost per square foot (labor and materials) for a deductive change order for all lining not used in construction. However, OCFA reserves the right to have any remaining unused High Temperature Lining treated as required spare parts/material in lieu of deductive change order.

14) **QUESTION:** What functionality is expected of the BBQ prop, in regard to performance? What procedures does OCFA utilize on incidents that could be incorporated into the design.

RESPONSE: Refer to Specification Section 11 95 10, paragraph 2.01.D.e for General Prop Descriptions of Balcony BBQ. A small freestanding exterior style BBQ with integral burner, no pans allowed.

15) **QUESTION:** Re: Section 2.01 E. Please clarify direct wired PC. Is the current control room with the PC to be replaced, or is the desire to have independent control at each equipment space with wireless control for each burn room?

RESPONSE: Props shall all be independent and not centrally controlled thus if a single prop is in failure, all other props would remain operational.

16) **QUESTION:** What functionality is expected of the BBQ prop, in regard to performance? What procedures does OCFA utilize on incidents that could be incorporated into the design.

RESPONSE: Refer to Specification Section 11 95 10, paragraph 2.01.D.e for General Prop Descriptions of Balcony BBQ. A small freestanding exterior style BBQ with integral burner, no pans allowed.

17) **QUESTION:** Re: Section 3.01 F. Are electronic Operator and Maintenance Manuals acceptable in lieu of paper copies?

RESPONSE:

One electronic and one bound paper copy of Operations and Maintenance Manuals will be required. The hard copy version shall be reviewed as part of the prop Start-Up and Training paragraph 3.02.

18) QUESTION: On Page 7 of the Solicitation Information, Section 2.5.3 Project Timeline, it states that the project will be completed in 30 days. In discussing this timeline with the specialty prop vendor and our own scope of work, this schedule is not possible or realistic. Also, at the job walk yesterday it was stated that we will not have access to all of the work at the same time and some phasing will be required to accommodate the fire training schedules. As such, we would like the schedule to be listed as something realistic which we estimate at 5 months for full completion as 4 months is tight. This way we can phase and move around each location to accommodate the site utilization. Please advise.

RESPONSE: The schedule contract duration will be 150 days to facilitate coordination with ongoing OCFA Training Academy schedule; however, all required training and equipment start up and commissioning must be completed within the 150 days.

19) QUESTION: On Page 25 of the Bid Forms, is a reminder to download and complete the Exhibit G: Schedule of Values and submit with documents. I do not understand what is being asked with this form. It is vague and does not specify what you are looking for.

- a. Are you expecting that for the bid, we are to try and figure out all of the trades and classifications of the proposed workers on the project and list them all with a quantity and rate? And then you want a line item for each piece of material that is to be used on the project, listed with its quantity and unit price? Then we are to list individual overhead & indirect costs rather than a line item for general conditions?
- b. Tab 2: Fee Estimate; this looks like a certified payroll sheet and is asking for random Tasks that are not defined. At the top it has disciplines listed like drainage and Survey, neither are a part of this project.
- c. Is this schedule G actually to be provided with this bid? If so, please define what is being requested more clearly. Maybe this form is a form that can be clarified later and required of the low 3 bidders for evaluation. Please advise.

RESPONSE: Please see below:

- a. Please provide as much of a detailed breakdown as possible based on involved trades, work involved and materials to be used for the project. Some items may be grouped and combined as a single line item as needed.
- b. Tab 2 is to be completed to provide OCFA with a breakdown of classifications and disciplines involved for the project. The headers at the top row were used to provide a sample of different disciplines and were marked as "Ex." Representing "example" disciplines.
- c. Please provide the Exhibit G as part of your bid package. It will be evaluated as part of your bid. OCFA may also reach out if any additional information or clarification is needed.

20) QUESTION: At the job-walk, permits and responsibility was discussed. Please clarify whether or not the Building Permit is covered by OCFA, reimbursable to the GC or the GC's responsibility. If it is the GC's responsibility can you please provide the permit costs, since we were told the plans are ready, so that we may all accurately include the correct costs for permitting?

RESPONSE: The City of Irvine Building permit must be drawn by the GC; however, the cost for the permit is a reimbursable by OCFA to the GC. The GC is responsible for the cost of any required City traffic control permits, business licenses, if any, etc...

21) **QUESTION:** Will there be any required coordination meetings as part of this contract?

RESPONSE: Yes, weekly meetings to coordinate scheduling and other needs will be required as part of this contract.

22) **QUESTION:** Will there be any additional coordination required for delivery of large objects, storage, and specialized equipment that will need to be utilized on-site.

RESPONSE: Yes, OCFA will coordinate with the awarded contractor during the project for the delivery and storage of large items onsite along with the arrival and use of any specialized equipment as necessary. It is also recommended that the awarded contractor make preparations to provide secure storage containers onsite as needed for the project duration such as for the storage of machinery, tools and equipment.

IMPORTANT: If you have submitted a bid before this addendum was issued, your bid may be invalidated. After you have reviewed the addendum, you must submit your bid with the form acknowledging receipt of this addendum.

Thank you for your interest in doing business with OCFA.

Best Regards,


Rothchild Ong
Assistant Purchasing Agent


 Received

EXHIBIT L: 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 PCN3, 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 SK2462 – FIRE TRAINING STRUCTURE IMPROVEMENTS AT OCFA RFOTC

("Contract") which Contract dated 10/22/2020, 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 United States Fire Insurance Company ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of ONE MILLION, THREE HUNDRED FIFTY-EIGHT THOUSAND, EIGHT HUNDRED FIFTY DOLLARS, AND EIGHT CENTS (\$1,358,850.08), 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 30th day of September, 2020, 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)

PCN3, Inc

Principal

By

Print Name and Title of Signatory


*Brian Abzgeri, President***SURETY:**

(Affix Corporate Seal)

United States Fire Insurance Company

Surety

By Vanessa Copeland, Attorney-in-Fact

Pinnacle Surety & Insurance Services

Name of California Agent of Surety

151 Kalmus Dr., Ste A201, Costa Mesa, CA 92626

Address of California Agent of Surety

(714)546-5100

Telephone Number of California Agent of Surety

Contractor must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. 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.

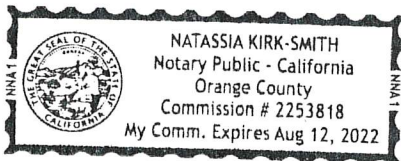
State of California)

County of Orange)

On 9/30/20 before me, Natassia Kirk-Smith, Notary Public,

personally appeared Vanessa Copeland
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.



Place Notary Seal Above

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: Natassia Smith
Signature of Notary Public

OPTIONAL

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

Description of Attached Document

Type or Title of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Vanessa Copeland

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

Signer Is Representing: _____

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: _____

Signer Is Representing: _____

**POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY**

01016

KNOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint:

Eric Lowey, Mark Richardson, Vanessa Copeland, Kevin Cathcart, Shawn Blume

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties not exceeding: **Fifty Million Dollars (\$50,000,000).**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

This Power of Attorney revokes all previous Powers of Attorney issued on behalf of the Attorneys-In-Fact named above and expires on January 31, 2021.

This Power of Attorney is granted pursuant to Article IV of the By-Laws of United States Fire Insurance Company as now in full force and effect, and consistent with Article III thereof, which Articles provide, in pertinent part:

Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

(a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;

(b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 10th day of March, 2016.

UNITED STATES FIRE INSURANCE COMPANY



ARR

Anthony R. Slimowicz, Executive Vice President

State of New Jersey }
County of Morris }

On this 10th day of March 2016, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

SONIA SCALA
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 3/25/2024
No. 2163686

Sonia Scala

(Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 30th day of September 20 20

UNITED STATES FIRE INSURANCE COMPANY



Peter M. Quinn

Peter M. Quinn, Senior Vice President

Orange County Fire OCFA

Solicitation No. 2462

Bond No. 613-101004-2

EXHIBIT M: 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 PCN3, 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 SK2462 – FIRE TRAINING STRUCTURE IMPROVEMENTS AT OCFA RFOTC

("Contract") which Contract dated 10/22/2020, 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, United States 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 ONE MILLION, THREE HUNDRED FIFTY-EIGHT THOUSAND, EIGHT HUNDRED FIFTY DOLLARS, AND EIGHT CENTS (\$1,358,850.08), 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 30th day of September, 2020.

CONTRACTOR:

(Affix Corporate Seal)

PCN3, Inc

Principal

By

Brian Abzhorj, President
Print Name and Title of Signatory

SURETY:

(Affix Corporate Seal)

United States Fire Insurance Company

Surety

By Vanessa Copeland, Attorney-in-Fact

Pinnacle Surety & Insurance Services

Name of California Agent of Surety

151 Kalmus Dr., Ste A201, Costa Mesa, CA 92626

Address of California Agent of Surety

(714)546-5100

Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of OCFA for Surety and a Notarial Acknowledgment for all Surety's signatures. 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.

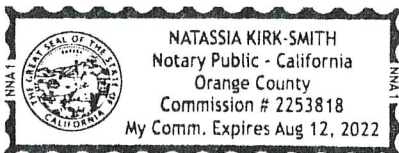
State of California)

County of Orange)

On 9/30/20 before me, Natassia Kirk-Smith, Notary Public,

personally appeared Vanessa Copeland
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.



Place Notary Seal Above

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: Natassia Kirk-Smith
Signature of Notary Public

OPTIONAL

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

Description of Attached Document

Type or Title of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Vanessa Copeland

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

Signer Is Representing: _____

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: _____

Signer Is Representing: _____

**POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY**

01016

KNOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint:

Eric Lowey, Mark Richardson, Vanessa Copeland, Kevin Cathcart, Shawn Blume

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties not exceeding: **Fifty Million Dollars (\$50,000,000).**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

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Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

- (a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;
- (b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 10th day of March, 2016.

UNITED STATES FIRE INSURANCE COMPANY



ARR

Anthony R. Slimowicz, Executive Vice President

State of New Jersey }
County of Morris }

On this 10th day of March 2016, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

**SONIA SCALA
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 3/25/2024
No. 2163686**

Sonia Scala

Sonia Scala (Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 30th day of September 20 20

UNITED STATES FIRE INSURANCE COMPANY



Peter M. Quinn

Peter M. Quinn, Senior Vice President

STATE OF CALIFORNIA
DEPARTMENT OF INSURANCE
SAN FRANCISCO

Nº 07812

Certificate of Authority

THIS IS TO CERTIFY THAT, Pursuant to the Insurance Code of the State of California,

United States Fire Insurance Company

of Wilmington, Delaware, organized under the
laws of Delaware, subject to its Articles of Incorporation or
other fundamental organizational documents, is hereby authorized to transact within the State, subject to
all provisions of this Certificate, the following classes of insurance: Fire, Marine,

Surety, Disability, Plate Glass, Liability, Workers' Compensation,

Common Carrier Liability, Boiler and Machinery, Burglary, Credit,

Sprinkler, Team and Vehicle, Automobile, Aircraft, and Miscellaneous

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 31st

day of December, 2003, I have hereunto

set my hand and caused my official seal to be affixed this

31st day of December, 2003.



By

John Garamendi
Insurance Commissioner

Victoria S. Sidbury
for Ida Zodrow
Asst. Chief 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 Insurance Code Section 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.



CRUM & FORSTER®

COVID-19 PERFORMANCE BOND RIDER

THIS RIDER is hereby incorporated into, and forms a part of, the Performance Bond, identified by number as 613-101004-3 (the "BOND").

WHEREAS, this RIDER is created, effective, and issued contemporaneously with the BOND, and the SURETY and PRINCIPAL rely upon the effectiveness of this RIDER and the incorporation of its terms and obligations into the BOND at the time of its formation as an inducement to its agreement of the terms and obligations of the BOND; and,

WHEREAS, the COVID-19 global pandemic is an unforeseeable public health emergency of unknown duration or pattern.

NOW THEREFORE, this RIDER modifies the BOND as follows:

1. Neither the SURETY nor the PRINCIPAL shall be liable to the OBLIGEE under the BOND, for claims and/or damages, or anything, caused by, relating to, or in connection with, directly or indirectly, the COVID-19 global Pandemic, and/or related directives from national, state, and/or local officials, including but not limited to, delay damages, additional costs in performance, costs related to requested accelerations, and/or damages due to default or termination of the Contract.
2. The provisions of this RIDER shall be in full force and effect notwithstanding whether or not the PRINCIPAL has complied with the terms and conditions of the Contract with respect to any claims and/or defenses regarding default and/or termination of the Contract arising out of, directly or indirectly, the COVID-19 global pandemic, and/or related directives from national, state, and/or local officials. The PRINCIPAL's failure, in whole or in part, to comply with the applicable terms and conditions of the Contract shall not bar the SURETY from exercising its rights set forth in this RIDER.
3. If the Contract requires notice to the OBLIGEE from the PRINCIPAL and/or the SURETY of COVID-19-related impacts on the Project, the OBLIGEE is deemed to have sufficient notice upon issuance of this RIDER and waives any further notice.
4. Any agreement between PRINCIPAL and OBLIGEE to which the SURETY is not a party, related to the subject matter of this RIDER, shall have no force and effect as to the SURETY or the BOND, absent the SURETY's express consent.
5. For purposes of this RIDER, the following definitions are added:
 - a. COVID-19 means coronavirus disease 2019, or any other disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (previously known as 2019-nCoV), or any disease caused by any mutation or variation of SARS-CoV-2.



CRUM & FORSTER

- b. Pandemic means a widespread occurrence of a communicable disease, including COVID-19, as has been declared, assessed or characterized as a pandemic by the World Health Organization, in any public statement.

It is further understood and agreed that all other terms and conditions of the BOND shall remain unchanged.

SIGNED, SEALED AND DATED THIS 30th day of September, 2020.

Vanessa Copeland, Attorney-in-Fact

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)

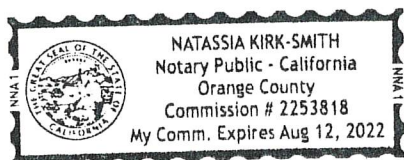
County of Orange)

On 9/30/20 before me, Natassia Kirk-Smith, Notary Public,

personally appeared Vanessa Copeland

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: Natassia Smith
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

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Description of Attached Document

Type or Title of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Vanessa Copeland

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

Signer Is Representing: _____

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: _____

Signer Is Representing: _____

**POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY**

01016

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Eric Lowey, Mark Richardson, Vanessa Copeland, Kevin Cathcart, Shawn Blume

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties not exceeding: **Fifty Million Dollars (\$50,000,000).**

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- (a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;
- (b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 10th day of March, 2016.

UNITED STATES FIRE INSURANCE COMPANY



AR

Anthony R. Slimowicz, Executive Vice President

State of New Jersey }
County of Morris }

On this 10th day of March 2016, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

SONIA SCALA
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 3/25/2024
No. 2163686

Sonia Scala

Sonia Scala (Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 30th day of September 20 20

UNITED STATES FIRE INSURANCE COMPANY



Peter M. Quinn

Peter M. Quinn, Senior Vice President

EXHIBIT N: 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: 10/5/20

Legal Name of Contractor: PCN3, INC.

Signature: 

Printed Name: Brian Abgleri

Title: President

EXHIBIT O: IRS FORM W9

Form W-9 (Rev. December 2014) Department of the Treasury Internal Revenue Service	Request for Taxpayer Identification Number and Certification	Give Form to the requester. Do not send to the IRS.
---	---	---

Print or type See Specific Instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <div style="text-align: center; font-family: cursive;">PCN3, INC.</div>	
	2 Business name/disregarded entity name, if different from above <div style="text-align: center; font-family: cursive;">as above</div>	
	3 Check appropriate box for federal tax classification; check only <u>one</u> 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) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member 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.) <div style="text-align: center; font-family: cursive;">11082 Winners Circle, Unit B</div>	Requester's name and address (optional)
	6 City, state, and ZIP code <div style="text-align: center; font-family: cursive;">Los Alamitos, CA, 90720</div>	
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 Part I instructions on page 3. 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> on page 3.																																																			
Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="10" style="text-align: center;">Social security number</td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="10" style="text-align: center;">or</td> </tr> <tr> <td colspan="10" style="text-align: center;">Employer identification number</td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> <div style="text-align: center; font-family: cursive; font-size: 1.2em;">95-4739909</div>	Social security number																				or										Employer identification number																			
Social security number																																																			
or																																																			
Employer identification number																																																			

Part II Certification			
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 on page 3.			
Sign Here	<table style="width: 100%;"> <tr> <td style="width: 50%;"> Signature of U.S. person ▶ </td> <td style="width: 50%;"> Date ▶ <div style="text-align: center; font-family: cursive;">10/5/20</div> </td> </tr> </table>	Signature of U.S. person ▶	Date ▶ <div style="text-align: center; font-family: cursive;">10/5/20</div>
Signature of U.S. person ▶	Date ▶ <div style="text-align: center; font-family: cursive;">10/5/20</div>		

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/w9.

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?* on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

**ORANGE COUNTY FIRE AUTHORITY
CONSTRUCTION SERVICES AGREEMENT
FOR FIRE TRAINING STRUCTURE IMPROVEMENTS AT OCFA RFOTC**

THIS AGREEMENT FOR FOR FIRE TRAINING STRUCTURE IMPROVEMENTS AT OCFA RFOTC ("Agreement") is made and entered into this 22nd day of October, 2020, ("Effective Date") by and between Orange County Fire Authority, a California Joint Powers Authority ("OCFA"), and PCN3, Inc., ("Contractor"). OCFA and Contractor are sometimes hereinafter individually referred to as "Party" and collectively as the "Parties".

RECITALS

WHEREAS, OCFA requires Fire Training Structure Improvements at OCFA RFOTC as requested in IFB SK2462, hereinafter referred to as "Project"; and

WHEREAS, Contractor has submitted to OCFA a bid dated September 23, 2020, incorporated herein by this reference ("Bid"); and

WHEREAS, OCFA and Contractor desire to enter into this Agreement in order to receive and provide, respectively, construction services on the same terms, conditions, and pricing as further set forth in Section 1.1 of this Agreement;

AGREEMENT

NOW THEREFORE, OCFA and Contractor mutually agree as follows:

SECTION ONE

1. **SCOPE OF AGREEMENT.** In compliance with all terms and conditions of this Agreement, OCFA shall procure construction services from Contractor as more fully detailed in Exhibit "A", attached hereto, which includes by reference and by addendum: (1) OCFA's IFB SK2462, dated September 2, 2020 ("Solicitation"), (2) Contractor's Bid, dated September 23, 2020, and (3) any amendments, addendums, change orders, or modifications mutually agreed upon by the Parties hereto ("Services", "Goods" or "Work"). In the event of any inconsistency between the terms contained in Exhibit "A", 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 Exhibit "A" shall govern, in that order.

2. **GENERAL CONDITIONS.** Contractor certifies and agrees that all the terms, conditions, and obligations of this Agreement, including the location of the Project site, and the conditions under which the work is to be performed, have been thoroughly reviewed. Contractor enters into this Agreement based upon Contractor's investigation of all such matters and is in no way relying upon any opinions or representations of OCFA. It is agreed that this Agreement and the attached exhibits represent the entire agreement. It is further agreed that the Contractor and its subcontractors, if any, will be and are bound by this Agreement relating in any part or in any way, directly or indirectly, to the work covered by this Agreement. Contractor further certifies and agrees that the work described herein 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.

3. **MATERIALS AND LABOR.** Contractor shall furnish, under the conditions expressed herein, at Contractor's own expense, all labor and materials necessary, except such as are mentioned in Exhibit "A" to be furnished by the OCFA, to construct and complete the Project, in good workmanlike and substantial order. 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 them directly and deduct the amount of payments from this Agreement price and any amounts due to Contractor. In the event OCFA receives a stop notice from any laborer or material supplier alleging nonpayment 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.

4. **CONTRACT PRICE AND METHOD OF PAYMENT**

4.1 **CONTRACT PRICE.** OCFA agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Agreement, subject to any subsequent additions or deductions as provided in approved change orders, the sum of One Million, Three Hundred Fifty-Eight Thousand, Eight Hundred Fifty Dollars, and Eight Cents (\$1,358,850.08) as shown on Exhibit "A".

4.2 **METHOD OF PAYMENT.** Within thirty (30) days from the commencement of work, there shall be paid to the Contractor a sum equal to ninety-five percent (95%) of the value of the actual work completed plus a like percentage of the value of material suitably stored at the worksite or approved storage yards subject to or under the control of the OCFA, since the commencement of the work as determined by the OCFA.

Thereafter, on a schedule issued by the OCFA at the commencement of the job which shows a minimum of one payment made to the Contractor per month for each successive month as the work progresses and the request for payment due dates from the Contractor to meet the payment schedule, 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 since the commencement of work as determined by the OCFA, 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.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the OCFA's Project Manager, stating that the work for which payment is demanded has been performed in accordance with the terms of this Agreement, and that the amount stated in the certificate is due under the terms of this Agreement. Partial payments on this Agreement price shall not be considered as an acceptance of any part of the work.

4.3 **RETENTION.** The OCFA will retain five percent (5%) of the amount of each such progress estimate and material cost until the Final Payment.

5. **CONTRACTOR'S REPRESENTATIVE.** The following principal of Contractor is hereby designated as being the principal and representative of Contractor authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: [Name], [Title] . The foregoing principal shall be responsible during the term of this Agreement for directing all activities of Contractor and devoting sufficient time to personally supervise the

work hereunder. The foregoing principal may not be changed by Contractor without the express written approval of OCFA

6. **OCFA PROJECT MANAGER.** The Project Manager shall be [Name], [Title], unless otherwise designated in writing by OCFA. It shall be Contractor's responsibility to keep the Project Manager fully informed of the progress of the provision of the Goods or Services and Contractor shall refer any decisions that must be made by OCFA to the Project Manager. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Project Manager.

7. **NOTICES.** 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, Purchasing
Manager
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:

PCN3, Inc.
Attention: Brian Abghari
11082 Winners Circle, Unit #B
Los Alamitos, CA 90720

SECTION TWO

8. COMPLIANCE WITH LABOR CODE AND PUBLIC CONTRACT CODE. OCFA is subject to the provisions of law relating to prevailing wages, labor law generally, and public contracts in the State of California. It is agreed that all provisions of law applicable to public contracts are a part of this Agreement to the same extent as though set forth herein, and will be complied with by the Contractor.

No contractor or subcontractor may be awarded or perform a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall not pay less than the prevailing wage. It shall be the responsibility of the Contractor to obtain the prevailing wage rates from the Director of Industrial Relations directly.

9. PREVAILING WAGE. This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the higher of the two prevailing wage rates, federal or state, will be enforced. The work is subject to the payment of not less than prevailing wages under Labor Code Section 1770 et seq. Contractor agrees to comply with all related provisions of the Labor Code, including but not limited to, the provisions of Labor Code Section 1775 relating to payment of prevailing wages, Section 1777.5 relating to employment of apprentices and Section 1811-1813 relating to the payment of overtime. Failure to comply with the proper prevailing wage requirements may result in penalty of up to \$200 per day per worker. Failure to comply with apprenticeship requirements may result in penalty of \$100-\$300 for each calendar day of violation. Failure to pay proper overtime rate may result in a penalty of \$25 per day per worker. Bidders 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 this Agreement which will be awarded to the successful bidder. This information is available at the Department of Industrial Relations website: <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Bidders are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Further information on Compliance Monitoring Unit requirements can be found at: <https://www.dir.ca.gov/Public-Works/PublicWorksEnforcement.html>.

In accordance with Section 1773.2 of the CA Labor Code, the Contractor shall post a copy of the determination of prevailing rate of wages at each job site. Travel and subsistence payments to each workman needed to execute the work shall be made as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the CA Labor Code.

10. RELEASE OF LIENS AND PAYMENT SCHEDULE. Prior to each progress payment Contractor shall submit a "Conditional Release of Lien upon Progress Payment" with the first, and thereafter each, progress payment application in the amount of the application for payment specifying the period of time for which the Conditional Release applies.

For each payment period, if payment has been received by Contractor for the previous application, Contractor shall submit an "Unconditional Waiver and Release Upon Progress Payment" for the labor and materials associated with the progress billing satisfied with the prior payment. The subsequent progress billing is then submitted with a new "Conditional Release of Lien" in the amount of the application for the next specified period of time.

When all project labor and materials have been paid in full, Contractor shall submit an "Unconditional Waiver and Release Upon Final Payment".

Final Payment shall not become due until Contractor submits to OCFA's Project Manager: (1) an Unconditional and Final Release of Liens containing an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work and materials for which OCFA or OCFA's property might in any way be responsible, have been paid or otherwise satisfied, and signed by all subcontractors and suppliers; (2) the consent of the surety to Final Payment; and (3) if reasonably required by the OCFA's Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of this Agreement, to the extent and in such form as may be designated by the OCFA's Project Manager. OCFA's Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.

If any Subcontractor or material supplier refuses to sign the Final Release of Liens or to furnish a release or waiver required by OCFA's 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 OCFA's Project Manager to indemnify OCFA against any lien and against the costs and reasonable attorney fees in discharging such lien. If any lien remains unsatisfied after all payments are made, Contractor shall refund to OCFA all monies that the OCFA pays in discharging such lien, including all costs and reasonable attorneys' fees, or OCFA in its sole discretion may proceed to make a demand against the surety for all such costs and attorney fees. In the event OCFA makes demand for payment against the surety, Contractor shall be responsible to reimburse OCFA upon demand for any costs and reasonable attorney fees not paid by the surety.

11. TIME OF COMMENCEMENT AND COMPLETION. Contractor agrees to commence the Project within number of days specified in Exhibit "A" and shall diligently prosecute the work to completion as provided for herein, excluding delays caused or authorized by the OCFA as set forth in this Agreement.

Time is of the essence of this Agreement. Contractor shall prepare and obtain approval of all shop drawings, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with construction schedule approved by the OCFA Project Manager. Contractor shall coordinate the work covered by this Agreement with that of all other Contractors, subcontractors of the OCFA, if any, in a manner that will facilitate the efficient completion of the entire work in accordance with this Agreement. OCFA shall have the right to assert complete control of the premises on which the work is to be performed and shall have the right to decide the time or order in which the various portions of the work shall be installed or the priority of the work of other subcontractors, and, in general, all matters representing the timely and orderly conduct of the work of Contractor on the premises.

12. LIQUIDATED DAMAGES FOR DELAY. The Parties agree that if the total work called for under this Agreement, in all parts and requirements, is not completed within the time approved by OCFA, plus any allowance made for delays or extensions authorized by OCFA, the OCFA will sustain damage which would be extremely difficult and impracticable to ascertain. The parties therefore agree that Contractor will pay to OCFA the sum of Five Hundred Dollars (\$500.00) per day, as liquidated damages, and not as a penalty, for each and every calendar day during which completion of the Project is so delayed. Contractor agrees to pay such liquidated damages and further agrees that OCFA may offset the amount of liquidated damages from any monies due or that may become due Contractor under this Agreement.

13. COMPLETION. Within 10 days after this Agreement completion date of the Project, Contractor shall file with the Project Manager its affidavit stating that all workers and persons employed, all firms supplying materials, and all subcontractors upon the Project have been paid in full, and that there are no claims outstanding against the Project for either labor or material, except those certain items, if any, to be set forth in an affidavit covering disputed claims, or items in connection with Stop Notices which have been filed under the provisions of the statutes of the State of California. The Project Manager may require affidavits or certificates of payment and/or releases from any subcontractor, laborer or material supplier.

Upon receipt of Contractor's affidavit, the Project Manager shall prepare appropriate documentation setting forth the particular details of the completed Project, including but not limited to, description and amount of all change orders, the final amounts of this Agreement, as amended, the time and dates of the total agreement and the identification of any unresolved claims or disputes. If necessary, Project Manager shall submit the Project and the agreements to the OCFA Board of Directors for acceptance of the job as complete.

14. SURETY BONDS

14.1 FAITHFUL PERFORMANCE BOND. Contractor shall furnish a Payment (Labor and Materials) Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.2 PAYMENT BOND. Contractor shall furnish a Faithful Performance Bond in an amount equal to one hundred percent (100%) of the total Agreement amount in the form supplied by OCFA included in the Invitation for Bid documents.

14.3 GENERAL REQUIREMENTS To the extent required under Civil Code section 9550, the Contractor shall furnish and maintain throughout completion of the Project the aforementioned bonds. The bonds must be issued by a surety authorized by the State Insurance Commissioner to do business in California.

14.4 UNACCEPTABLE SURETY. If any surety upon any bond furnished in connection with the Agreement becomes unacceptable to the OCFA, or if any such surety fails to furnish reports as to its financial condition from time to time as requested by the Project Manager, the Contractor shall promptly furnish such additional security as may be required by the Project Manager or the OCFA Board of Directors from time to time to protect the interests of the OCFA and of persons supplying labor materials in the prosecution of the work contemplated by this Agreement.

14.5 SUBSTITUTION OF SECURITY. Pursuant to Public Contract Code Section 22300, the Contractor shall be permitted to substitute securities for any monies withheld by the OCFA to ensure performance under this Agreement at the request and expense of the Contractor if he/she chooses to do so.

15. INSURANCE.

15.1 REQUIREMENTS. Contractor shall at all times carry, on all operations hereunder, bodily injury, personal injury, including death and property damage liability insurance, including automotive operations, bodily injury and property damage coverage; and builders' all risk insurance. All insurance coverage shall be in amounts specified below and shall be evidenced by the issuance of a certificate in a form prescribed by the OCFA and shall be underwritten by insurance companies satisfactory to OCFA for all operations, subcontract work, contractual obligations, product or completed operations, all owned, hired, and non-owned vehicles. Said insurance coverage obtained by the Contractor, excepting workers' compensation coverage, shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the OCFA to add the following provisions to the insurance policies: (1) the policy or policies shall name the OCFA, 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, Officers, Agents, and Employees, as determined by the OCFA, as additional insured on said policies; and (2) each policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its Directors, Officers, Officials, Agents, Employees, Project Manager, Volunteers or Consultants, shall not contribute with the primary insurance.

Workers' Compensation	Minimum of \$1,000,000 - In Accordance with the Workers' Compensation Act of the State of California.
General Liability, including operations, products and completed operations	<p>\$5,000,000, per occurrence for bodily injury, personal injury and property damage/\$5,000,000 aggregate.</p> <p>If commercial general liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the required occurrence limit.</p> <p>For those businesses that are self-insured, a written declaration by the principal of the business should be provided.</p>
Automobile Liability, including owned, hired, and non-owned vehicles	\$1,000,000 combined single limit per occurrence; \$1,000,000 uninsured motorist.
Builder's Risk	All Risk Basis; Completed value of the project without co-insurance penalty provided.

Contractor shall maintain all of the foregoing insurance coverage in force until the work under this Agreement is fully completed and accepted by OCFA. The requirement for

carrying the foregoing insurance shall not derogate from the provisions for indemnification of OCFA by Contractor under this Agreement. 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 Agreement, the following insurance in amounts not less than the amounts specified and issued by a company admitted in California and having an A.M. Best's Guide Rating of "A-" Class VII or better: However, OCFA 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".

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.

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.

15.2 EVIDENCE OF COVERAGE. 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 coverage 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 OCFA.

OCFA 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.

15.3 SUBCONTRACTORS. 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 OCFA 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 to name the OCFA, its officials, officers, employees, agents and volunteers, as additional insureds. Contractor shall not allow any subcontractor to commence any work relating to this Agreement unless and until it has provided evidence satisfactory to OCFA that the subcontractor has secured all insurance required under this section. Payment under this Agreement for services performed by subcontractors may be withheld by OCFA until evidence satisfactory to OCFA is provided that the subcontractor has secured all the required insurance is provided to OCFA.

16. RISK AND INDEMNIFICATION. All work covered by this Agreement done at the site of construction or in preparing or delivering materials to the site shall be at the risk of Contractor alone. Contractor agrees to save, indemnify and keep OCFA, its Directors, Officers, Agents, Employees, Project Manager, and Consultants for this Agreement, and all public agencies from whom permits will be obtained and their Directors, Officers, Agents and Employees harmless against any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (Contractor's employees included) and damage to property, arising directly or indirectly out of the obligations herein undertaken or out of the operations conducted by Contractor, except that the indemnity obligation of Contractor shall be reduced by an amount proportional to the active negligence of the OCFA, if any, and will make good to and reimburse OCFA for any expenditures, including reasonable attorneys' fees OCFA may incur by reason of such matters, and if requested by OCFA, will defend any such suits at the sole cost and expense of Contractor.

In the event Contractor or its insurer refuses or fails to provide a legal defense to OCFA after receiving written notice of the legal action and a tender and demand for defense, OCFA shall have the right to select counsel of its own choice to represent all the interests of the OCFA. Contractor agrees that the amount of legal costs and expenses, including attorneys' fees, may be withheld by OCFA from any Contract amounts due and owing to Contractor until such time as a final determination is made as to the responsibility for payment of said fees and costs.

SECTION THREE

17. INDEPENDENT CONTRACTOR. Neither OCFA nor any of its employees shall have any control over the manner, mode or means by which Contractor, its agents or employees, perform the services required herein, except as otherwise set forth herein. Contractor shall perform all services required herein as an independent contractor of OCFA and shall remain at all times as to OCFA a wholly independent contractor with only such obligations as are consistent with that role. Contractor shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of OCFA.

18. ASSIGNMENT. Contractor shall neither delegate its duties or obligations, nor assign its rights with respect to this Agreement, 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.

19. COMPUTATION OF TIME. When any period of time is referred to in this Agreement 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.

20. INTEREST. Any monies not paid when due to either party under this Agreement shall bear interest at the rate of ten (10%) percent per annum, commencing on the forty-sixth (46th) day after demand for payment thereof after such monies are lawfully due and payable, except as otherwise provided in this Agreement.

21. 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 this Agreement as now or hereafter existing or at law, equity, or by statute.

22. NON-WAIVER. The failure of the OCFA to notify the Contractor of any default under this Agreement 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 Agreement, 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 this Agreement, or to exercise any option in this Agreement 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.

23. SEVERABILITY. In case any one or more provisions set forth in this Agreement 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 this Agreement, and this Agreement 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 Agreement.

24. NO THIRD PARTY BENEFICIARIES. This Agreement is 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 Agreement except as may be expressly provided in this Agreement to the contrary.

25. 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 this Agreement, and none of the provisions of this Agreement 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 Agreement by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.

26. COUNTERPARTS. This Agreement 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.

27. GOVERNING LAW. This Agreement shall be governed by the laws of the State of California.

28. SERVICES PRIOR TO EXECUTION. Notwithstanding the fact that this Agreement is executed as of the date first set forth above, the Parties recognize that a portion of the Work required under this Agreement may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of this Agreement and shall be deemed to be a part of the Work. Without limiting the foregoing, all of Contractor's liabilities and obligations to OCFA 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.

29. SURVIVAL OF RIGHTS. Any indemnity, warranty, guarantee given by the Contractor to the OCFA under this Agreement shall survive the expiration or termination of this Agreement and shall be binding upon Contractor until any action under this Agreement is barred by the applicable statute of limitations.

30. NON-DISCRIMINATION. 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 Agreement. Contractor shall take steps to ensure that applicants for any job and 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.

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.

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 Agreement 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.

IN WITNESS WHEREOF, the Parties hereto have executed this Construction Agreement as of the date first hereinabove written.

"OCFA"

ORANGE COUNTY FIRE AUTHORITY

Date: _____

By: _____

Sara Kennedy, CPPB
Purchasing Manager

APPROVED AS TO FORM

ATTEST:

By: _____

DAVID E. KENDIG
GENERAL COUNSEL

By: _____

Maria D. Huizar
Clerk of the Board

"CONTRACTOR "


PCN3, INC.

Date: 10/5/20

By:  _____

Brian Abghari, President

Date: 10/5/20

By:  _____

Brian Abghari, Secretary

EXHIBIT "A"

SCOPE OF SERVICES

2.1 PROJECT LOCATION

OCFA requires the improvement of the RFOTC drill grounds located at **1 Fire Authority Road, Irvine, CA, 92602**. The Drill Grounds were constructed in 2005 to accommodate training operations and simulate various conditions typically encountered during firefighting and rescue operations. Additional classrooms, training props and auxiliary equipment are now required, including improvements to training structures and various fire training equipment.

2.2 CONTRACTOR RESPONSIBILITIES

2.2.1 MATERIAL AND LABOR

Contractor shall provide all permits, material, labor, tools and supplies to complete the project as described herein. See Attachment Two for detailed information on these requirements and additional components that must be included in Contractor's bid and pricing.

2.2.2 CSLB LICENSE

Contractor and all 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.

2.2.3 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.

2.2.4 CITY OF IRVINE BUSINESS LICENSE REQUIREMENTS

Contractor and all subcontractors shall conform to the requirements of the City of Irvine and maintain an active business license pursuant to City of Irvine Municipal Code. The successful contractor and all subcontractors must remain in compliance with these requirements throughout the duration of the project.

2.2.5 WARRANTY

In addition to those requirements contained within Attachment Two, Contractor shall warrant the workmanship and manufacturing for a minimum of one year.

2.3 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.

2.4 DELIVERABLES

2.4.1 PROJECT COMPONENTS

2.4.2.1 TASK ONE: MODIFICATIONS TO EXISTING STRIP MALL STRUCTURE

2.4.2.2 TASK TWO: MODIFICATIONS TO TRAINING TOWER STRUCTURE

2.4.2.3 TASK THREE: INTERIOR LIVE FIRE PROP REPLACEMENT

Refer to Attachment Two of the IFB Document for detailed information about the project requirements including, but not limited to, the scope of services, drawings, specifications, submittals, required permits, inspections, etc.

2.4.2 SPECIFICATIONS

2.4.2.1 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.

2.4.2.2 EQUIVALENT ALTERNATE ITEMS

2.4.2.2.1 EQUIPMENT SUBMITTALS

As noted throughout Attachment Two, 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 Attachment Two to substantiate that the item is equal no less than ten (10) days prior to the bid deadline; failure to do so may result in the bid 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 non-responsive.

2.4.2.2.2 ADDITIONAL SUBMITTALS

Contractor shall submit for approval all items and documentation prior to beginning work in accordance with the requirements outlined in Attachment Two. In addition to the requirements specified in Attachment Two, 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 Construction Agreement (see Attachment One).

2.4.2.3 MATERIALS

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

OCFA intends to purchase and keep as inventory commonly replaced items for the purpose of expediting training prop 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.

2.4.3 PROJECT EXECUTION

2.4.3.1 WORKMANSHIP

OCFA will accept at a minimum the level of workmanship described below. 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.

2.4.3.2 CLEAN-UP

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.

2.4.3.3 PROTECTION

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

2.4.3.4 REPAIR

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

2.4.3.5 ACCEPTANCE DOCUMENTATION

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

2.5 SCHEDULES, TIMELINES, AND MEETINGS**2.5.1 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.

The drill grounds will be in use during project work. 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 the existing circulation roadways within the training grounds shall be scheduled at least seven (7) days in advance.

2.5.2 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 of Irvine.

2.5.3 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 30 days

2.5.4 MEETINGS

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

2.5.4.1 PRE-AWARD MEETING

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

2.5.4.2 PRE-CONSTRUCTION JOB WALKS

These meetings with OCFA, the City of Irvine, and others as necessary and/or required by law will be coordinated by the Contractor

2.5.4.3 PROJECT STATUS MEETINGS

Weekly meetings held in person, unless otherwise determined

2.5.4.4 ACCEPTANCE

Meetings regarding project acceptance and warranty punch list items

2.5.4.5 ADDITIONAL

Other meetings deemed necessary for contract compliance

Orange County Fire Authority



Regional Fire Operations and Training Center

Training Grounds Modifications & Upgrades

This document contains an overview and summary of the proposed modifications and upgrades to the existing fire training multi-story Tower and Strip Mall structures located at the Reginal Fire Operations and Training Center in Irvine, California.

Prepared By:

**RSSE Structural Engineers, Inc.
&
G² Solutions Group, Inc.**

August 2020

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- | | | |
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- | | | |
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A. SUMMARY / OVERVIEW

Orange County Fire Authority (OCFA) is seeking proposals for to conduct modifications and additions to the existing fire training tower and strip mall structures located within the training grounds. The scope of work is defined within the attached project specifications and approved contract drawings. Below is a brief summary for the administration of the work.

1. **Project Understanding:** Each bidder acknowledges that he or she has carefully read the included specifications and contract drawings and has examined all documents for the scope of work prior to submission of their bid proposal.
2. **Project Permits:** The current approved architectural and structural drawings are on file with the City of Irvine. It shall be the responsibility of the contractor to procure the proper permits from the city prior to beginning work.
3. **Project Schedule:** The contractor shall be advised that the work described herein shall be performed at an occupied and active site. Prior to beginning of work, contractor shall prepare a schedule of work and submit to OCFA for review and acceptance. Any work, deliveries or efforts which may impede the existing circulation roadways within the training grounds shall be scheduled at least seven (7) days in advance with the OCFA Fire Training department personnel.
4. **Project Workers:** All contractors and subcontractors performing work shall have and maintain the following current registrations.
 - a. Contractor License registered with the State of California Contractors State License Board (CSLB)
 - b. Registration with the State of California Department of Industrial Relations (DIR)
 - c. City of Irvine business license.
 - d. Insurances
5. **Project Submittals:** Submittals shall be prepared by the general contractor or subcontractor after award of contract as described within the respective specification section or noted within the approved contract drawings. Submittals are to be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
 - a. Contractor shall provide five (5) copies of information required or one (1) electronic version.
 - b. Submittals shall be reviewed and returned within ten (10) working days of submission. Failure to provide submittals in a timely manner will not justify delays in construction. Corrections to submittals shall be addressed as noted. Failure to address may result in rejection of work.
 - c. Contractor shall maintain one (1) copy of each approved submittal at the construction site for the duration of the project.

6. **Project Documentation and As-Built Drawings:** Upon completion of work, contractor shall provide the following documents for final review and acceptance by OCFA and the architect or engineer of record.
 - a. **Warranties:** Provide written warranties for all elements as noted within the project specifications and approved contract drawings.
 - b. **Operation and Maintenance Manuals:** Provide copies of manuals with cover pages as referenced within the project specifications.
 - c. **As-Built Drawings:** Provide one (1) electronic copy of as-built drawings noting actual installation and dimensions marked in legible "red".

B. PROJECT TASKS

1. TASK 1 – Modifications to Existing Strip Mall Structure

Modifications to Strip Mall Structure: The existing Strip Mall structure will require various modifications in order to address the need for various training scenarios not available within the training grounds.

- Construction of a new mansard roof element on the north side with a metal observation catwalk
- Construction of a metal stud/exterior face block wall with window openings along the east parapet wall.
- Construction of a new sloping roof above the existing sloped roof along the west wall.
- Full enclosure of the existing trash bin area which includes a north facing wall, roof structure, overhead coiling door and interior power
- for relocated ice machine.
- Installation of existing SCBA Bottle Fill unit within existing 1st Floor Storage Room.

2. TASK 2 – Modifications to Training Tower Structure

Modifications to Training Tower Structure: The existing Multi-Story Training tower structure will require various modifications to accommodate the proposed live fire prop replacement and address other training scenarios.

- Construction of a metal stud/exterior face block low wall at 2nd level west facing balcony. This is to replace the existing metal guardrails.
- Removal of noted non-bearing interior concrete masonry unit (CMU) walls for live fire prop room enlargement.
- Addition of noted interior CMU walls to close off rooms and spaces.
- Removal and infill of existing exterior wall louvers
- Construction of new "Denver Window Prop" at 2nd floor
- Removal of existing prop room vision panels

3. TASK 3 – Interior Live Fire Prop Replacement

Modifications to Training Tower Structure: The existing live fire props are in need of replacement. These props utilize 20-year old technology which restricts the training abilities. The system is also a single fault source type which if one prop fails, all props within the building are non-functional. The proposed prop replacement will provide heightened training, with new technology and advancements in functionality. Below are the proposed replacements and associated room modifications required.

Tower Burn Room #1: 1st Floor Living Room Prop #F103

Many deficiencies were noted in this room which should be addressed to increase the training potential and environment. The proposed plan is to replace the existing prop with a new multi-burner kitchen fire.

- Reduce exterior wall louver size
- Reconfigure east exterior wall opening
- Close off ceiling exhaust opening and utilize wall mounted exhaust fan at east exterior wall. This will increase the heat levels.

Tower Burn Room #2: 2nd Floor Bedroom #F202

The most noticeable deficiency noted was the room and prop size. For this room the following should be considered to increase the training potential and environment.

The prop would be replaced with multi-burner sofa prop with ceiling rollover effect fire.

- Reduce exterior wall louver size
- Remove Exterior windows
- Reduce emergency exhaust shaft size.
- Remove or move interior west wall of prop room to increase size. Consider blind side entry into room.
- Replace bed prop with suitable smaller footprint prop such as entertainment center, sectional sofa or concealed cabinets with multiple burners and flame extension.
- Install forcible entry door at exterior access point(s)
- Remove steel heat shield protection at ceiling above prop
- Extend high temperature lining protection at ceiling and walls

Tower Burn Room #3: 3rd Floor Kitchen Prop #F303

The existing kitchen fire prop is an early generation model with single use. For this room the following should be considered to increase the training potential and environment.

The prop would be replaced with a multi-burner office fire prop

- Replace existing prop with multiple burner and flame spread style prop to simulate concealed fire, grease flare up or commercial hood fire.
- Reduce emergency exhaust shaft size.
- Install forcible entry door at exterior access point(s)
- Remove steel heat shield protection at ceiling above prop
- Extend high temperature lining protection at ceiling and walls

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:

Owner'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: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
 - 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:

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.

END OF SECTION

SECTION 09 97 13

HIGH-TEMPERATURE PAINT

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. This Section includes surface preparation and application of high-temperature-resistant paint to all exposed metal surfaces within the shown live fire burn rooms/areas of the multi-story, Fire Training Structure. Surfaces include, but are not limited to the following:
 - 1. Hollow metal doors and frames
 - 2. Hollow metal window frames
 - 3. Exposed interior and exterior metal
 - 4. Exposed steel framing and steel members.

1.02 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Product Data: For each paint coating system specified.
 - 1. Manufacturer's Information: Manufacturer's technical information, including preparation and application.
 - 2. Certification by the manufacturer that the product supplied complies with local and State of California regulations controlling the use of VOCs.
- C. Samples for Initial Selection: Manufacturer's standard color charts showing the full range of colors available for type of finish-coat material indicated.

1.03 QUALITY ASSURANCE

- A. Applicator Qualifications: An experienced applicator who has experience in the application of completed high-temperature-resistant painting of applications similar in material and extent to that indicated for the Project and with a record of successful in-service performance.
- B. Source Limitations: Obtain primers and undercoat materials for each coating system from the same manufacturer as finish coats.
- C. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project of scope of work.

1.04 WARRANTY

- A. High temperature lining systems shall have a carry a full manufacturer warranty against defects or failures for a period of not less than ten (10) years from the date of project acceptance.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the Project site in the manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
 - 1. Add other requirements to suit specific Project circumstances.
 - 2. Product name or title of material.
 - 3. Product description (generic classification or binder type).
 - 4. Manufacturer's stock number and date of manufacture.
 - 5. Contents by volume, for pigmen and vehicle constituents.
 - 6. Application instructions.
 - 7. Color name and number.
 - 8. VOC content.
 - 9. Handling instructions and precautions.
- B. Store materials not in use in tightly covered containers in a well-ventilated area, protected from sunlight and weather, at a minimum ambient temperature of 50 deg F and a maximum ambient temperature of 100 deg F. Maintain storage containers in a clean condition, free of foreign materials and residue.
 - 1. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure workers and work areas are protected from fire and health hazards resulting from handling, mixing, and applying coatings.

1.06 PROJECT CONDITIONS

- A. Manufacturer's Written Recommendations: Comply with manufacturer's written recommendations for optimum temperature and humidity conditions for applying and curing high-temperature-resistant coatings. Do not apply coatings until these conditions have been attained and stabilized.
- B. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85%; at temperatures less than 50 deg F above dew point; or to damp or wet surfaces.
 - 1. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before proceeding with coating operation.
 - 2. Coating application may continue during inclement weather only if surfaces to be coated are enclosed and heated within temperature limits specified by the manufacturer during application and curing periods.

1.07 ADDITIONAL STOCK

- A. Upon completion of work, contractor shall deliver a minimum of 10% additional product in manufacturer's sealed containers.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers meeting the requirements of this Specification.

2.02 PAINT, GENERAL

- A. **Material Compatibility:** Provide primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by the manufacturer based on testing and field experience

- B. **Material Characteristics:** The following lists the technical data and information of the specified high-temperature resistant paint.

- | | | |
|-----|--|--|
| 1. | Generic Type: | Silicone |
| 2. | Finish: | Low sheen and metallic |
| 3. | Temperature Resistance: | |
| 4. | Continuous: 1,000°F (538°C) | |
| 5. | Intermittent: 1,200°F (649°C). | |
| 6. | % solids by volume: | 18 (Varies with Color) |
| 7. | Viscosity | 300-450 cps (Varies with Color) |
| 8. | Dry film Thickness | 0.75 – 1.0 mils per coat (19-25 microns) |
| 9. | Theoretical Coverage | 289 mil. Sq. ft. per gallon |
| 10. | Weight per gallon | |
| 11. | Thurmalox 270 Series, 8.8 lb (4.1 kg.) | |
| 12. | Dampney 100 Thinner, 7.1 lb (3.2 kg) | |
| 13. | Volatile Organic Compounds | 420 g/l or less |

- C. Colors: Provide manufacturer's standard colors for selection by the Architect.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions which high-temperature-resistant paints will be applied, for compliance with coating application requirements.

1. Apply coatings only after unsatisfactory conditions have been corrected and surfaces to receive coatings are thoroughly dry.

- B. Coordinate primers specified in other Sections with undercoats and finish coatings specified in this Section to ensure compatibility of materials. Some high-temperature-resistant coatings will lift incompatible primers or may have poor adhesion when applied over zinc-based or baked primers.

- C. Coordination of Work: Review other Sections in which primers or other coatings are provided to ensure compatibility of total systems for various substrates. On request, furnish information on characteristics of specified finish materials to ensure compatible primers.
 - 1. Where a potential incompatibility of primers applied by others exists, obtain the following from the applicator of the primer before proceeding:
 - a. Confirmation of the suitability of the primer for the expected service temperature.
 - b. Confirmation of the primer's ability to be top-coated with materials specified.
 - 2. Notify the Architect about anticipated problems using the coatings specified over substrates primed by others.

3.02 PREPARATION

- A. Cleaning: Before applying high-temperature-resistant paint, clean substrates of substances that could impair bond. Remove oil and grease before cleaning.
 - 1. Schedule cleaning and coating application so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.
- B. Surface Preparation: Clean and prepare surfaces to be coated according to the manufacturer's written instructions for each particular substrate condition, and as specified.
 - 1. Coordination of shop-applied prime coats with high-temperature-resistant coatings is critical. See "Coordination of Work" Paragraph in "Examination" Article. If compatibility problems exist, it may be necessary to provide barrier coats over primers or to remove primer and reprime substrate.
 - 2. Provide barrier coats over incompatible primers or remove and re-prime.
 - 3. Ferrous Metal: Clean ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.
 - a. Blast-clean steel surfaces according to requirements of SSPC standard recommended by coating system manufacturer.
 - b. Treat bare and sandblasted or pickled-clean metal with a metal-treatment wash coat before priming.
 - c. Touch up bare areas and areas where shop-applied prime coats have been damaged. Wire brush, solvent clean, and touch up with the same primer as the shop coat.
- C. Material Preparation: Mix and prepare materials according to coating manufacturer's written instructions.
 - 1. Maintain containers used for mixing and applying coatings in a clean condition, free of foreign materials and residue.
 - 2. Stir materials before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain coating material before using.
 - 3. Use only the type of thinners approved by manufacturer and only within recommended limits.

3.03 APPLICATION

- A. General: Apply high-temperature-resistant paint according to the manufacturer's written instructions. Use applicators and techniques best suited for material being applied.
 - 1. Do not apply coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
 - 2. Coating colors, surface treatments, and finishes are indicated in the schedules.
 - 3. Provide finish coats compatible with primers used.
- B. Scheduling Coating: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for coating as soon as practicable after preparation and before subsequent surface deterioration.
 - 1. Number of coats and film thickness required is the same regardless of application method employed. Do not apply succeeding coats until previous coat has cured, as recommended by the manufacturer.
 - 2. When undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance. Give special attention to edges, corners, crevices, welds, exposed fasteners, and similar surfaces to ensure they receive a dry film thickness equivalent to that of flat surfaces.
 - 3. Allow sufficient drying time between successive coats to permit proper curing. Do not recoat until coating has dried so it feels firm and does not deform or feel sticky under moderate thumb pressure, and where applying another coat does not cause undercoat to lift or lose adhesion.
- C. Application Procedures: Apply coatings by spray according to the manufacturer's written instructions.
 - 1. Spray Equipment: Use spray equipment with orifice size as recommended by the manufacturer for material and texture required.
- D. Minimum Coating Thickness: Apply each coat per the manufacturer's recommended spreading rate. Minimum of two (2) coats. Provide total dry film thickness of entire system as recommended by the manufacturer.
 - 1. Each Coat a minimum thickness of 1.0 mil (25 microns)
- E. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to substrate to be coated that has not been prime coated by others. Recoat primed and sealed substrates where there is evidence of suction spots or unsealed areas in first coat to ensure a finish coat with no burn through or other defects caused by insufficient sealing.
- F. Applying high-temperature-resistant coatings by brush is not always suitable. Before specifying, consult manufacturer to determine that brush application will produce an acceptable finish coat.
- G. Mechanical Applications: Use mechanical methods to apply coating when permitted by the manufacturer's written recommendations and governing regulations.
 - 1. Where using spray application, apply each coat to provide equivalent hiding of brush-applied coats. Do not double back with spray equipment, building up film thickness of two coats in one pass, unless recommended by manufacturer.

3.04 CLEANING

- A. Cleanup: At the end of each workday, remove rubbish, empty cans, rags, and other discarded coating materials from the Project site.
 - 1. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

3.05 PROTECTION

- A. Protect work of other trades, whether being coated or not, against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by the Architect.
 - 1. Provide "Wet Paint" signs to protect newly coated finishes. Remove temporary protective wrappings provided by others to protect their work after completing coating operations.
 - 2. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces. Comply with procedures specified in PDCA P1.

3.06 COATING SCHEDULE

- A. Ferrous Metal: Provide the following coating system over ferrous-metal surfaces:
 - 1. Retain coating system below for an acrylic or alkyd organic coating over ferrous-metal surfaces subject to surface temperatures between 200 and 300 deg F (93 and 149 deg C) and exposed to weather and chemical environments. Glidden does not offer an acrylic or alkyd organic coating in this temperature range that is similar to products of other manufacturers.
 - 2. Retain coating system below for an epoxy coating over ferrous-metal surfaces subject to surface temperatures between 200 and 300 deg F (93 and 149 deg C) and exposed to weather and chemical environments. Devoe and Porter do not offer an epoxy coating in this temperature range that is similar to products of other manufacturers.
 - 3. Retain coating system below for a silicone-resin-based coating over ferrous-metal surfaces subject to surface temperatures between 800 and 1000 deg F (427 and 538 deg C).
 - 4. Silicone Based Paint: Provide two coats over a primer.
 - a. Prime Coat: Manufacturer's recommended metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.0 mils (0.508 mm).
 - b. First and Second Coats: Manufacturer's recommended silicone-based, high-temperature-resistant coating applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.0 mils (0.25 mm) for each coat.

END OF SECTION

SECTION 11 95 10

INTERIOR STRUCTURAL FIRE TRAINERS

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. This section is to define the work associated with the removal and replacement of the existing live fire props as shown in the contract drawings.
- B. This specification defines the functional and performance characteristics of the computer-controlled interior natural gas-fueled live fire training system for the OCFA Fire Training Center in Irvine, California. Fire Training Equipment Supplier (FTES) shall be responsible for the complete provision, installation, testing and start-up of the structural live fire trainers.
- C. The purpose of the live fire trainers is to meet both the minimum requirements for the live fire training certification of entry level fire service personnel, as specified in the NFPA 1001, and advance training scenarios to provide refresher skills and meet ongoing training requirements for the seasoned veteran.
- D. Scope of Work:
 - 1. Conduct a comprehensive job walk to observe the existing live fire props, burn rooms, equipment rooms and supporting infrastructure systems.
 - 2. Provide all required reference material and product certifications with required Specification Submittal noted in paragraph 1.04.
 - 3. Provide on-going assistance in coordination and document review for all adjacent structure trades affected by the live fire prop systems including, but not limited to masonry, doors, windows and electrical.
 - 4. Provide complete review of contract documents for conflicts and coordination requirements. All discrepancies shall be identified prior to beginning of construction.
 - 5. Permits for project will be secured by the General Contractor for the approved plans and specifications. Any additional agency required permits for prop installation and systems, if required by the City of Irvine shall be the responsibility of the Fire Training Equipment Supplier (FTES).
 - 6. Extend interior infrastructure from existing point(s) of connections within the live fire prop equipment rooms to proposed live fire systems including, but not limited to natural gas, electrical power, conduits for system automation and controls. All new exposed conduits and piping shall be rigid type and painted.
 - 7. Provide and install fully-integrated natural gas fired props as listed in Paragraph 2.01.D of this Section.
 - 8. Provide and install fully-integrated emergency exhaust ventilation system and exhaust shaft mounted fan unit to serve multiple floors. Refer to plans
 - 9. Provide and install system control and diagnostic control units for each fire trainer.
 - 10. Provide complete testing and certification of each fire trainer.
 - 11. Provide manuals and training for each fire trainer and system diagnostics.
 - 12. Provide system and equipment maintenance for designated period listed in Paragraph 3.01.H.

1.02 RELATED SECTIONS

- A. Section 09 97 13: High Temperature Paint
- B. Section 11 95 11: High Temperature Lining Systems
- C. Section 11 95 13: Smoke Distribution System

1.03 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Product Data: For each gas fired prop and affiliated equipment as indicated.
- C. Product and Material Certifications: For all equipment and systems provide certification of compliance with state and local agencies including, but not limited to; Underwriters Laboratory (UL), National Fire Protection Agency (NFPA), National Electrical Manufacturer's Association (NEMA), American Society for Testing and Materials (ASTM), American Concrete Institute (ACI), etc.
- D. Shop Drawings: Include; plans, elevations, sections, details, and attachments to other Work and to building structure.
- E. Installer Certificates: Signed by the system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install system.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified third party testing agency, for components of system
- G. Warranties: Warranties specified in this Section
- H. Inspection Report: Final inspection acceptance and start-up report signed by system vendor certifying completion and proper working order.
- I. Training Information: Provide training course outline of goals and materials to be covered.

1.04 INSTRUCTIONS

- A. Each bidder acknowledges that he or she has carefully read the included specifications and examined all documents for the equipment requested prior to submitting an offer. All offers shall be in compliance with current codes and standards for this type of equipment. Current codes shall supersede errors in specification.
- B. The performance standards of the live fire trainers set forth in these specifications are the minimum acceptance without exception. Equivalent substitutions will be considered if in compliance with this Specifications Section. Contractor assumes full responsibility to provide alternate products or materials as specified for any items deemed unacceptable as a submitted substitution.

- C. The work to be included in this proposal consists of the furnishing of all labor, materials, equipment, tools, and services, and all costs related for installation of natural gas fired training props within the existing concrete and masonry training building. Any cost that may be necessary to complete the work, in accordance with the specifications and drawing documents, shall be furnished by the vendor at no additional cost to the owner.
- D. All equipment utilized shall conform to all applicable codes and standards. All electrical equipment/components shall be UL approved electrical control equipment. All State and Local code requirements shall be observed and adhered to.
- E. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

1.05 QUALITY ASSURANCE

- A. Qualifications: Fire Training System Supplier must be a qualified company that possesses the following requirements. Failure to comply with requirements may be cause for rejection.
 - 1. Company history including all business names that the company has offered live fire training equipment under. The history must include any and all business names (including acquisitions) that the company has done business as (DBA). Demonstrated experience in coordination, design, installation and training of computerized environment training systems using natural gas fuel for interior applications as specified.
 - 2. Company history including a minimum of ten (10) years offering computerized live fire training systems utilizing natural and natural gas fuels.
 - 3. Five (5) Customer References of completed projects, which are of equal or greater size, utilize computer controls and natural gas a fuel source. Must use form provided in section 3.04.
 - 4. A complete history of any accidents or incidents, whether they resulted in injury or not, that occurred within or around a training unit produced by the manufacture offering the equipment. Failure to include all incidents, including operator error or system failures, will be considered non-responsive and may result in rejection. The list shall include any and all equipment produced under any business name (including acquisitions) that the company has done business as (DBA).
 - 5. Written documentation of the equipment certification for the completed live fire training equipment offered:
 - a. Certification by a Nationally Recognized testing Laboratory (NRTL) (Dated within 12 months of contract award) in compliancy to UL 508A, NFPA 54, 58, 86, and 1402. The NRTL must meet the requirements of OSHA 29 CFR 1910.7.
 - b. A compliancy letter from an Independent Engineering firm of a completed safety analysis and flame failure analysis of the operational system. The FTA and FFA must be in compliancy with MIL-STD 882D at a minimum.
- B. Trainer equipment shall be designed and installed in accordance with the latest version of the following standards:
 - 1. NFPA 54: Fuel Gas Code
 - 2. NFPA 70: National Electrical Code
 - 3. NFPA 1402: Guide to Building Fire Service Training Centers
 - 4. NFPA 86, the Standard for Ovens and Furnaces, Sixteenth Edition
 - 5. UL 508A, the Standard for Industrial Control Equipment.
 - 6. ANSI Z21 & 83: Series Standard for Gas Utilization Equipment

- C. Live structural fires shall be compliant and meet the criteria for training as specified in the following NFPA manuals:
 - 1. NFPA 1001: Standard for Fire Fighter Professional Qualifications
 - 2. NFPA 1403: Standard on Live Fire Training Evolutions
 - 3. NFPA 1500: Standard on Fire Department Occupational Health & Safety.
- D. All work performed at the construction site shall be by qualified personnel licensed to perform applicable work in the State of California, with a current City of Irvine business license, and shall maintain current insurance in accordance with OCFA and the City of Irvine requirements.

1.06 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of not less than five (5) years after the final system training and acceptance date. Provide a replacement part for any part that fails in normal use.
- B. The Fire Training Equipment Supplier shall provide a customer service telephone number that can be used by the Owner 24 hours per day, 7 days per week. Responses to initial call must be made within 24 hours by the FTES's customer service department.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable manufacturers for the provision and installation of the live fire interior fire trainers are listed below. The Basis-of-Design is the following product model and manufacturer:
 - 1. Structural Fire Trainer Model "Raven" as manufacturer by:
FireBlast451, Inc., 545 Monica circle, Corona CA 92880
 Telephone (800) 716-1977
 Website: www.fireblast.com
 - 2. Structural Fire Trainer Model "T-1000" as manufacturer by:
KFT, Inc., 17 Philips Parkway, Montvale, NJ 07645
 Telephone (201) 300-8100
 Website: www.kiddeft.com
 - 3. **Bullex® Inc.** 20 Corporate Circle, Albany NY 12203.
 Telephone (518) 689-2023.
 Website www.bullex.com .
 - 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to published date of bid for review and consideration by OCFA and the architect.
- B. The live fire training system for the facility shall consist of multiple gas fired props as listed within the table 2.1 below. Refer to approved contract drawings for additional information describing the locations of props.

C. Table 2.1 listing prop description and location:

FIRE TRAINING STRUCTURE – Bldg. 2			
FLOOR	PROP LOCATION	DESCRIPTION	PROP EQUIPMENT ROOM LOCATION
1	1 ST FLOOR KITCHEN FIRE	Kitchen Fire Prop with Flare-Up	Existing 1 st Floor Prop Equip. Room
2	2 ND FLOOR BEDROOM FIRE	Double bed mock-up fire	Existing 2 nd Floor Prop Equip. Room
2	2 ND FLOOR CEILING FLASHOVER FIRE	Ceiling Flashover/Rollover to extend over stairwell	Existing 2 nd Floor Prop Equip. Room
2	2 ND FLOOR EXTERIOR BBQ BALCONY FIRE	Small free-standing BBQ fire mounted in existing balcony	Existing 2 nd Floor Prop Equip. Room
3	3 RD FLOOR OFFICE FIRE PROP WITH ROLLOVER	Office Fire desk prop with Ceiling Flashover/Rollover	Existing 3 rd Floor Prop Equip. Room

D. General Prop Descriptions:

1. Office Fire with Extension
 - a. Office fire shall simulate a commercial desk fire within an office environment. The fire structure shall consist of a single desk unit with integral burners as the base fire.
 - b. The extension fire, or secondary fire shall be an overhead ceiling rollover fire intended to extend beyond the shown low office wall which can be seen as one enters the room.
 - c. The flames from the desk and shall extend to the ceiling and also capable of rolling toward the firefighters.
 - d. Desk Fire prop shall utilize the water bath technology for the fire. Pans within the mock-up shall have integral drain valves for easy servicing.
 - e. The Ceiling Rollover fire shall operate independently or concurrently with the office desk and extension fire below. The flame of the rollover shall extend toward the north wall
 - f. Upon initialization by the operator, smoke shall be emitted and the fire shall begin to grow according to parameters selected by the instructor at the scenario control panel. The fully involved fire shall reach to the underside of the ceiling approximately six feet above the mock-up and shall cover the majority of the desk surface

2. Kitchen Fire with Flare-Up or Concealed Fire in cabinet :
 - a. The kitchen fire shall simulate a class B grease spill fire and a class A countertop fire. The fire structure shall consist of a mockup of a kitchen countertop with a range top at one end. Class A and B fires shall be simulated simultaneously.
 - b. The kitchen fire shall have a flare-up feature incorporated whereby in the event that the firefighter discharges water at the prop, the automatic sensor ignites a flare-up up feather simulating that of a common grease fire.
 - c. As an alternate the kitchen range-top fire shall be designed for automatic flame-spread to concealed cabinet fire above the countertop. The control system shall allow the selection of the start point of the fire, flame-spread sequence, and flame spread as selected by the operator. The concealed fire shall consist of an overhead kitchen cabinet with an internal flame element controlled through the prop control system. The flame can be initiated independent of the range fire or as part of the automated fire extension simulation.
 - d. Upon initialization by the operator, smoke shall be emitted and the fire shall begin to grow according to parameters set by the instructor at the scenario control panel. The fully involved fire shall reach the ceiling and shall cover the majority of the countertop area.

3. Bedroom Fire with Extension Ceiling Flashover:
 - a. The bedroom fire shall simulate a typical residential bedroom fire. The fire structure shall consist of a small double bed mockup
 - b. The structural training fire shall be designed for automatic flame-spread to overhead ceiling flashover. The control system shall allow the selection of the start point of the fire, flame-spread sequence, and flame spread as selected by the operator.
 - c. The Ceiling Rollover fire shall operate independently or concurrently with the bedroom fire below. The flame of the rollover shall extend toward and over western stairwell interior wall. Refer to plans
 - d. Upon initialization by the operator, smoke shall be emitted and the fire shall begin to grow according to parameters selected by the instructor at the scenario control panel. The fully involved fire shall reach to the underside of the ceiling approximately six feet above the mockup and shall cover the majority of the desk surface

4. Balcony BBQ Fire:
 - a. The balcony BBQ fire is to replicate a small fire which flames can be seen from the exterior of the structure. It shall consist of a free-standing BBQ mockup with integral burner assembly.
 - b. The balcony BBQ fire shall be capable of operating independently via the wireless control.

- E. The live fire prop system shall utilize a direct wired industrial personal computer (PC) for operator/trainer interface. The PC based system shall include the ability to integrate additional props in future expansions. PC controller shall have the capability of wireless connectivity to the master control.

- F. The system shall include a programmable logic controller (PLC) for each prop equipment room control rack. The PLC shall monitor all safety devices and operational controls while recording and archiving message logs and event data. The PLC shall be programmed to place the system in fail safe shut down in the event of safety device activation, manual E-stop depressed or system inaccuracy.

- G. The burn props shall be constructed of corrosion resistant steel. The props must be factory tested prior to delivery. Each burner must include stainless steel pilot and burner assemblies.
- H. The system shall include a smoke generation machine capable of up to 10,000 cubic feet per minute (cfm) distribution minimum. The smoke generation system shall be operated from the wireless or fixed pendant controller. The unit must provide the operator the ability to vary discharge duration and intervals between cycles from the main control unit without the use of any external equipment.
- I. The system shall include a gas detection unit that is based on infrared absorption principle incorporating a heated double-compensated optical bench (2 lamps, 2 detectors) with non-focusing optics design in two locations. The sensor must be temperature compensated and able to operate within an ambient temperature range of -40°F to 150°F and within ambient humidity conditions of 0 to 100%. Optics and electronics shall be hermetically sealed.
 - 1. The gas detection units shall verify a safe atmosphere within the burn room prior to and during all burn operations. The system shall verify a safe atmosphere prior to system operation. These units shall be interlocked with additional safety features.
 - 2. The gas concentration levels must constantly be displayed on the industrial computer and the operator mobile Touch Panel device screen.
 - 3. The systems shall be preset to a 10% Lower Explosive Level (LEL) warning level and 25% LEL alarm and shut down. A purge cycle shall then activate automatically. The gas monitoring unit features are interlocked to gas delivery and exhaust fan systems. An audible and visual alarm is activated during all elevated LEL conditions.
- J. Each burn prop room shall include temperature monitoring. Constant temperature monitoring shall exist whenever power is supplied to the system. Temperature sensors shall be located 60-inches above the finish floor level and initiate warning and automatic compartment ventilation at predetermined levels within the PLC program.
 - 1. Training room temperature activation shall occur when the room temperature reaches 450°F 60-inches above the floor level. The system shall activate the ventilation system and display on the PC and MTP a color indicator that represents to the operator that an over temperature shut down is approaching.
 - 2. Training room temperature shutdown shall occur when the room temperature reaches 500°F 60-inches above the floor level. The systems shall activate an emergency shut- down. All gas delivery system functions and smoke machine operation must cease. A full cycle purge shall then activate automatically through interlocks in the safety system and provide compartment ventilation until the temperature is reduced below the warning point.
- K. The system shall include an exhaust ventilation system. The exhaust system shall be designed to remove heat and by product of combustion from the training environment. The system design shall provide for a compartment air exchange every 60 seconds. The system shall be programmed upon start up of the equipment, the facility shall begin to exchange air and establish a safe training environment. Upon a system safety fault (over temperature, high gas level, system malfunction status) or manual activation of an emergency stop, automatic activation of the exhaust system shall initiate. The purge cycle shall continue until predetermined safety levels have been reached and reset. Safety reset parameters shall insure that a complete air exchange is provided prior to reactivation of the training equipment. This system shall include fan controls.

- L. Independent constant monitoring of flame propagation at each pilot burner shall be supplied. The pilot burner shall be designed to be inextinguishable. In the event that there is a failure of adequate pilot flame production, the fuel delivery system and all inline safety valves, shall close. Display status messaging shall activate on the industrial computer and the mobile Touch Panel device. The fuel delivery system shall be installed within a ULI approved cabinet. The fuel delivery system shall be equipped with fail-safe, safety shutoff valves that are UL listed and FM approved for gas use. A proof of closure switch and position status shall be included on all prop valves. The gas valve train shall include a secondary safety valve for all operational valves per NFPA 86. All gas pipe installation shall be compliant with NFPA 54 and 58. The fuel delivery system shall utilize stainless steel piping.
- M. All electronic components shall be UL approved for the application in which they are utilized. Control panels shall be designed, manufactured and certified to UL 508A compliancy. The NEC (NFPA 70) shall be utilized for all electrical installations.
- N. All live fire props shall be controlled via Wireless Remote Pendant Controller. The controller at minimum, must include the following functions and visual display features:
 - Dead Man Activation
 - E-stop
 - Burner enable
 - Pilot and burner flame activation
 - Flame Intensity Control
 - Smoke Generation
 - Flame Pause and Control
 - System Reset
 -
- O. The system shall include multiple levels of operator password protection. Each level shall provide varied levels of operator access. The system administrator level shall allow access by the fire agency to create and assign training officers to the varied levels of system operation.
- P. The system shall include data tracking and system monitoring of all system functions. Functions stored shall include operator commands as well as PLC functions and safety device inputs. Recording of data must include password logging, event messaging, system messaging, alarm messaging, operator display notes, run timers and counters and fault counters. All operation events shall be stored for retrieval. The information shall be stored in the hard drive of the operating system in addition to a compact flash card that can be removed for data retrieval. The information shall be viewable from the main operator control screen at any time by selecting the appropriate icon on the Windows® based operational screen.

Information shall be tracked by time, date, event, action and operator. Each log shall be designated by a number for file retrieval. The system shall integrate the data tracking within the industrial operating system and not require the use of additional external equipment for data removal, viewing or storage.
- Q. The operating system must have remote access capabilities. The FTES shall include the ability to conduct a remote diagnostic program for internet servicing and system upgrades as they are available.

- R. Walls and ceilings within burn rooms and areas shall be protected with high temperature lining systems specified elsewhere in these specifications. Thermal lining is rated to withstand temperatures in excess of 2000°F and thermal shock from the continuous heating and cooling typically found in live fire training exercises.
- S. Training fires and effect fires shall be instructor controlled. The control system shall, however automatically monitor all trainer safety systems, and shall stop all training fires and begin building ventilation as appropriate for the specific safety system alarm or malfunction.

2.02 SYSTEM SPECIFICATIONS

- A. Electrical Supply: As shown on Drawings.
- B. All components in this system shall perform to the following minimum standards:
 - 1. Compartment Equipment:
 - a. Temperature: 32 deg F to max. (Operating); -20 to 125 deg F (Storage)
 - b. Humidity: 0 to 100 percent
 - 2. Mechanical: All training compartment equipment shall withstand direct hose pressure of 100 PSI at 100 GPM from a distance of three feet.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. The fire training equipment supplier (FTES) shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- B. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- C. The fire training equipment supplier (FTES) shall provide and extend natural gas supply from the existing gas shut-off valve within the prop equipment room to the point of connection of the new fire training equipment.
- D. The fire training equipment supplier (FTES) shall provide and extend electrical service from existing prop equipment junction box within the prop equipment room to the point of connection of the new fire training equipment. Existing electrical conduits between electrical panel and prop system controls may be used. All other power and conduit required for proper control and operation shall be provided by the FTES.
- E. The fire training equipment supplier (FTES) shall employ a licensed mechanical engineer to calculate and verify required exterior ventilation louvers based on room size and use. Existing louvers within noted burn rooms may be reused or replaced as required to meet the calculated requirements. FTES shall provide and install the additional or replacement louvers.

- F. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- G. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- H. The base contract shall provide a minimum of five (5) years for semi-annual maintenance, for a total of ten (10) site visits. This maintenance does not serve as a substitute for the operational and preventive maintenance that is to be performed by the Owner. This maintenance shall be performed quarterly starting six (6) months after the date of Owner acceptance.

3.02 START-UP AND TRAINING

- A. Conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- B. Provide a minimum of two (2) 1-day operator's training courses for up to eight (8) OCFA Fire facility staff members. Each 1-Day course shall include at a minimum the following:
 - 1. Overview of each prop system and its functions
 - 2. Review of manuals and Equipment literature
 - 3. Complete Hands-On Live Fire Prop Operation
 - 4. Daily, weekly and monthly maintenance.
 - 5. Basic troubleshooting
 - 6. Equipment replacement such as burners, sensors and devices.
 - 7. What to do when system fails

3.03 FINAL CLEANING AND CLOSE-OUT

- A. Provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- B. Contractor shall clean all areas of work free of debris and materials.
- C. Fire training equipment shall be cleaned using approved cleaning materials prior to training.

3.04 REFERENCES**Customer References**

The Fire Training Equipment Supplier (FTES) must utilize this form to supply customer references as described in paragraph 1.06.A.3. This document should be copied for each reference offered. A minimum of five (5) units must be supplied.

Department name:	
Address:	
Contact name:	Contact phone #:

Model name/number:	Delivery date:
Type of equipment:	Number of props:

List all props installed including options:

Prop #1	Prop #2	Prop #3	Prop #4	Prop #5
Prop #6	Prop #7	Prop #8	Prop #9	Prop #10

NRTL certifying agency:	Yes	No	Contact Name:	Contact Number:

END OF SECTION

SECTION 11 95 11

HIGH TEMPERATURE LINING SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section is to define the work associated with the removal and installation of the high temperature lining system required for the protection of the existing concrete masonry walls.
 - 1. Removal all existing High Temperature Lining systems within the Strip Mall building per contract drawings. Material may be reused if undamaged in accordance with this section.
 - 2. Removal of High Temperature Lining Systems within the Training Tower building per contract drawings. Material by be reused if undamaged in accordance with this section.
- B. The installation of the specified high temperature lining systems shall include all associated work required for proper installation including, but not limited to attachments to walls and ceilings, metal support framing infrastructure and coordination with disciplines of adjacent work shown in the Multi--Story Training Structure (Building 2).
- C. Work in This Section includes the following:
 - 1. Removal of existing High Temperature Lining system on walls and ceilings.
 - 2. Reinstallation of undamaged panels where applicable.
 - 3. Installation of High Temperature Lining Panels on Walls
 - 4. Installation of High Temperature Lining Panels of Ceilings
 - 5. Installation of High Temperature Lining at wall openings. Refer to details.
 - 6. Installation of Cold Formed metal framing and furring for the support of High Temperature lining panels.
 - 7. Full-Height protective wall angles for all outside corners of lining material.
- D. Work to include full coordination of installation with interior Live Fire prop installation specified elsewhere for the Multi-Story Fire Training Structure. Coordination to include installation schedule, equipment and system infrastructure openings and attachments.
- E. Concrete refractory tiles, or metal lining systems will not be accepted.

1.02 RELATED SECTIONS

- A. Section 03 30 00 Cast in Place Concrete
- B. Section 09 97 13 High Temperature Paint
- C. Section 11 95 10 Interior Structural Fire Trainers.

1.03 WARRANTY

- A. High temperature lining systems shall have a full manufacturer warranty against defects or failures for a period of not less than ten (10) years from project acceptance.

1.04 REFERENCE

- A. NFPA 1403: Standard on Live Fire Training Evolutions
- B. NFPA 1500: Standard on Fire Department Occupational Health & Safety

1.05 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Product Data: Material product and performance data and installation accessories.
- C. Shop Drawings: Provide complete drawings showing;
 - 1. Floor plans of each live fire prop room/area within training tower structure.
 - 2. Wall elevations receiving high temperature lining protection.
 - 3. Ceiling plans of each live fire prop/area within training tower structure.
 - 4. Installation details of framing, corners protection, openings etc.
- D. Samples: Provide samples of material, framing accessories and wall angle protection: Sample size to be a minimum of four inches by four inches square (4" x 4").
- E. Product test and certifications information showing temperature protection.
- F. Warranty and Maintenance manuals.

1.06 QUALITY ASSURANCE

- A. Employ only installers familiar with the application and installation of high temperature lining materials for fire training buildings.
- B. Installers must have a minimum of five (5) years experience in the provision and installation of high temperature lining systems.
- C. Provide full product data and certification certifying product for application and performance specified herein.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Stack panels flat to prevent sagging.

1.08 PRODUCT MAINTENANCE

- A. Provide written instructions for the proper required maintenance and replacement of high temperature panels.

1.09 ADDITIONAL PRODUCT

- A. Upon completion of installation, contractor shall provide to the owner in manufacturer packaging a minimum of the following additional materials
1. Five (5) full size high-temperature lining panels (24" x 48" or 24" x 24")
 2. Five (5) high temperature battens. (3-3/4" x 48")

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:
1. High Temperature Lining Panels
 - a) WHP Training Towers: 9121 Bond, Overland Park, Kansas 66214, Telephone (800) 351-2525, FAX (913) 385-7078 Website: www.trainingtowers.com
 - b) FireBlast Global: 545 Monica Circle, Corona, California 92880, Telephone (951) 221-8976: Website: www.fireblast.com
 - c) Approved Equivalent: Equivalent provider to submit qualifications, product data and certifications a minimum of ten (10) days prior to bid for review and acceptance by the city.
 2. Cold Formed Galvanized Framing and Furring:
 - a) Cemco Systems.
 - b) Dietrich Industries, Inc.
 - c) Western Metal Lath & Steel Framing Systems.
 - d) Approved Equivalent

2.02 HIGH TEMPERATURE PANELS & BATTENS

- A. Proprietary Thermal **Wall & Ceiling** Liner Panels: Comply with the following:
1. Basis of Design: WHP "Super Padgenite™ HD", or Fireblast Thermalblast™
 2. Weight: Maximum system weight including panels, battens and framing shall not exceed 10 lbs/SF.
 3. Core: Minimum one (1) inch thick, consisting of calcium silicate, reinforcing filler and natural organic fiber.
 4. Panel Size: 24" x 24" (Minimum)
 5. PCF Density: 65 PCF.
 6. Compressive Strength: 5,500 psi
 7. Flex Strength: 1,400 psi.
 8. Continuous Service Temperature: 2,000° F.
 9. K-factor: 1.92 at a mean temperature of 800° F.
 10. Waterproofing: 2-part process on all sides
 11. Location: Refer to Schedule paragraph 3.02 of this section, and drawings.
- B. Proprietary Thermal **Batten** Panels: Comply with the following:
1. Basis of Design Product: WHP "Padgenite I" or Fireblast Thermalblast™
 2. Core: Minimum one (1) inch thick, consisting of calcium silicate, reinforcing filler and natural organic fiber.
 3. Batten Size: 3-3/4" x 48"
 4. PCF Density: 46 PCF.
 5. Flex Strength: 800 psi.
 6. Continuous Service Temperature: 1,200° F.
 7. K-factor: 0.81 at a mean temperature of 800° F.
 8. Waterproofing: 2-part process on all sides

2.03 PROTECTIVE TRIM ACCESSORIES

- A. Interior Galvanized Metal Trim: ASTM C 1047.
 - 1. Material: Aluminum, Galvanized or aluminum-coated steel.
 - 2. Shapes as follows:
 - a. 2" x 2" Full-Height Corner Protection: Use at all outside corners within burn room areas and adjacent spaces.
 - b. 18-gauge trim channels at all doors and windows in burn areas.

2.04 AUXILIARY MATERIALS

- A. General: Provide all auxiliary materials for installation and attachment of thermal panels in accordance with the published guidelines for "Installation of Padgenite® Panels and Accessories" provided by WHP Training Towers as the basis for installation.
- B. Galvanized Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
 - 1. Use #8 x 3/4" HWH T-2 Tek screws complying with ASTM C 954 for fastening panels to steel members.
 - 2. Use 2-1/4" "Tapcon" concrete anchors for attachment CMU walls
 - 3. Use 5/8" S-12 screws for attaching angles.

2.05 METAL FRAMING AND FURRING

- A. Carrying Channels: Cold-rolled, commercial-steel sheet with a base metal thickness of 18-gauge, a minimum 1/2-inch- wide flange, with manufacturer's standard corrosion-resistant zinc coating or hot-dipped galvanized.
- B. Furring Channels: Commercial-steel sheet with ASTM A 653/A 653M, G40, manufacturer's standard corrosion-resistant zinc coating or hot-dipped galvanized.
- C. 18-gauge Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch deep. Minimum Base Metal Thickness: 0.0179 inch.
- D. Resilient Furring Channels: 3/4-inch deep members designed to reduce sound transmission. Configuration: Asymmetrical, with face attached to single flange by a slotted leg
- E. Fasteners: Battens attached with #6 x 1-7/8" Tek fasteners. Panels attached with #8 x 3" Tek fasteners with 1/4 x 1-1/4" flat washers.

2.06 EXISTING HIGH TEMPERATURE LINING SYSTEM REUSE

- A. For purposes of bidding, contractor may assume that twenty-five percent (25%) of the existing high temperature lining panels may be reused. Panels shall be removed and reinstalled with the backside facing the burn room to appear as like new condition.
- B. For purposes of bidding, contractor may assume that fifty percent (50%) of the existing high temperature lining framing may be reused in all applicable areas.
- C. Contractor shall be responsible to supplement existing systems portions to be reused in order to provide a complete and safe interior environment for the use of live fire props. Supplements may include, but not be limited to: additional new high temperature panels, new additional wall framing and connectors, and new additional ceiling framing.

PART 3 - EXECUTION**3.01 GENERAL REQUIREMENTS**

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. Prior to shipping the system and equipment to the site, an inspection team from the high temperature lining supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The high temperature lining system supplier shall be responsible for all costs associated with shipping and storage of their equipment and materials.
- C. The high temperature lining system supplier shall provide five (5) copies of the manufacturer's Maintenance Manual to the OCFA. The manual shall fully describe the delivered system and shall include sections on troubleshooting, maintenance, associated diagrams and drawings.
- D. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 EXAMINATION

- A. Bidding contractor shall fully observe all locations where high temperature lining systems are to be installed as well as removed. Drawings depict information based on existing As-Built plans which may or may not reflect actual field conditions which have been modified. Contractor shall notify architect and owner in writing of any discrepancies affecting installation of work.
- B. High Temperature lining contractor to conduct meeting at site to examine all areas and substrates to receive the thermal liner, with Installer and fire training prop supplier present, to discuss and coordinate scope of work between the two entities. verify completeness of work and coordination of installation process requirements with all disciplines.
- C. Coordinate requirements of adjacent trades and disciplines.
- D. Notify architect of any discrepancies that would affect the proper installation of the thermal lining material. Proceed with installation only after unsatisfactory conditions have been corrected.
- E. Proceed with installation of thermal lining materials only upon verification that all discipline trade work adjacent to area has been completed and will not require removal and re-installation of panels.

3.03 SCHEDULE OF THERMAL LINING LOCATIONS:

- A. **One-Story Strip Mall Training Structure:** Within the strip mall building there exists one (1) existing burn room with wall and ceiling high temperature lining systems to be removed. These products and materials may be reused in noted locations of the multi-story fire training structure listed in 3.02.B.

- B. **Multi-Story Training Tower Structure:** Within the multi-story tower building there exists three (3) existing burn rooms with wall and ceiling high temperature lining systems to be removed. These products and materials may be reused in noted herein.

Room	Walls	Ceilings	Notes
1st Floor Kitchen Fire Prop	North Wall East Wall South Wall	Partial Ceiling Area (Refer to Reflected Ceiling Plan)	
2nd Floor Bedroom Fire Prop	East Wall South Wall Partial West Wall	Partial Ceiling Area (Refer to Reflected Ceiling Plan)	*Refer to interior details for protection at stairwell
2nd Floor Flashover Prop	Partial West Wall	Partial Ceiling Area (Refer to Reflected Ceiling Plan)	*Refer to interior details for protection at stairwell
2nd Floor Exterior BBQ Prop	East Wall South Wall Exterior Face of Wall per plans	Entire Ceiling Area of Balcony	Refer to plans for locations and extent.
3rd Floor Office Fire Prop	East Wall South Wall West Wall New north wall (+72")	Partial Sloping Ceiling Area* (Refer to Reflected Ceiling Plan)	

3.04 INSTALLATION OF HIGH TEMPERATURE WALL LINING

- A. Install wall grid system using metal furring and framing system in strict accordance with the guidelines provided by the product manufacturer.
- B. Install high temperature wall battens to framing in accordance with guidelines provided by the product manufacturer. Direct attachment of panels and battens to the structure is not permitted.
- C. Install trims and accessories including protective wall edges and trims.

3.05 INSTALLATION OF HIGH TEMPERATURE CEILING LINING

- A. Install ceiling grid system using metal furring and framing system in strict accordance with the guidelines provided by the product manufacturer.
- B. Install high temperature ceiling battens to framing in accordance with guidelines provided by the product manufacturer. Direct attachment of panels and battens to the concrete structure is not permitted.
- C. Coordinate installation with live fire prop vendor and trade disciplines for all locations. Coordination to include, but not limited to:
 1. New construction applications
 2. Ceiling fire applications at stairwell
 3. Existing ceilings and openings.
 4. Existing wall and openings.

3.06 INSTALLATION OF HIGH TEMPERATURE WALL & DOOR PROTECTION

- A. For Fixed windows at 2nd floor bedroom fire: Span opening with typical framing materials and install full lining system over window unit creating uniform wall and opening protection.
- B. For Doors affected by live fire heat; Affix single layer of Padgenite material to interior face of door unit. Notch at hardware and at hinge side to allow proper operation. Interior lining system to wrap and protect door frame. Refer to project details.

3.07 CLEANING AND PROTECTION

- A. Upon completion of work, properly dispose of all trash, debris and materials.
- B. Clean all high temperature panels free from markings, dirt and smudges. Use only approved manufacturer cleaning agents on panel surfaces.
- C. Protect all panels in place for the duration of construction. Remove prior to testing and start-up of fire training simulators.

END OF SECTION

SECTION 13 00 20

EXTERIOR LIVE FIRE GAS METER PROP

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. General Description: The live fire gas meter prop is to simulate a flange fire atop the gas meter mock-up. The control for the ignition shall be via wireless control independent of other building live fire props.
- B. Work to include the following:
 - 1. Manufacture and install a commercial live fire gas meter training prop at the existing fire training tower where shown on drawings. Prop shall simulate a flange fire erupting from a commercial bank of meters comprised of at least three (3) meter units.
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Natural gas shut-off and piping from point of connection inside existing prop equipment room to prop control.
 - b. Wireless Control device
 - c. Conduit and wire for controls and power: Extend service from within the existing prop control room to shown prop location. Control Room to point of connection at exterior building wall to be verified by prop installer.
 - d. Coordination of installation and infrastructure requirements with discipline trades, including high temperature lining systems.
- C. Work to include full coordination with all adjacent trades. Coordination to include:
 - 1. Installation of exterior prop mock-up.
 - 2. Utility infrastructure provision from point of connection to prop
 - 3. Testing, Start-Up and training
 - 4. Protection of work in place.
- D. Related Sections:
 - 1. Division 16 00 00 General Electrical

1.02 RELATED DOCUMENTS

- A. Approved contract drawings.

1.03 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Complete Operation and Maintenance Manuals.
- C. Product literature
- D. Installation details showing required building modifications and coordination with other trades.

1.04 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of five (5) years after the final system acceptance date. If for any reason, other than misuse and abuse, the system should fail, the training simulator supplier shall provide all labor, materials and replacement parts to the Owner for the duration of the warranty period. The fire training simulator provider shall also provide a customer service telephone number that can be used by the Owner during normal business hours to report system problems.

PART 2 - PRODUCTS**2.01 MANUFACTURERS**

- A. Acceptable manufacturers for the provision and installation of the live fire interior fire trainers are listed below. The Basis-of-Design is the following product model and manufacturer:
1. **FireBlast 451, Inc.** 4131 Tigris Way, Riverside, CA 92503
Telephone (951) 277-8319
Website: <http://www.fireblast.com>
 2. **KFT, Inc.**, 17 Philips Parkway, Montvale, NJ 07645
Telephone (201) 300-8100
Website: www.kiddeft.com
 3. **Bullex® Inc.** 20 Corporate Circle, Albany NY 12203.
Telephone (518) 689-2023.
Website www.bullex.com .
 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to bidding for review and acceptance by the Orange County Fire Authority.

2.02 EQUIPMENT

- A. The burn props shall be constructed of corrosion resistant steel. The prop must be factory tested prior to delivery. The burner must include stainless steel pilot and burner assemblies.
- B. The fuel delivery system shall be installed within a UL approved cabinet. The fuel delivery system shall be equipped with fail-safe, safety shutoff valves that are UL listed and FM approved for gas use. A proof of closure switch and position status shall be included on all prop valves. The gas valve train shall include a secondary safety valve for all operational valves per NFPA 86. All gas pipe installation shall be compliant with NFPA 54 and 58. The fuel delivery system shall utilize stainless steel piping.
- C. All electronic components shall be UL approved for the application in which they are utilized. Control panels shall be designed, manufactured and certified to UL 508A compliancy. The NEC (NFPA 70) shall be utilized for all electrical installations.
- D. Training fires and effect fires shall be instructor controlled. The control system shall, however automatically monitor all trainer safety systems, and shall stop all training fires upon activation of emergency stop.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. The fire training system supplier shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- C. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- D. The fire training system supplier shall provide and extend natural gas supply from the existing shut off connection point within prop equipment room to the terminus point as required for operation of the fire training equipment.
- E. The fire training system supplier shall provide and extend electrical service from the existing junction box power supply within the prop equipment room to the terminus point as required for operation of the fire training equipment. All other power and conduit shall be provided by fire training system installer.
- F. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- G. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- H. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 START-UP AND TESTING

- A. Conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).

- B. Provide a minimum of two (2) 1-day operator's training courses for up to eight Orange County Fire Authority staff personnel. Each 1-Day course shall include at a minimum the following:
 - 1. Overview of each prop system and its functions
 - 2. Review of manuals and Equipment literature
 - 3. Complete Hands-On Live Fire Prop Operation
 - 4. Daily, weekly and monthly maintenance.
 - 5. Basic troubleshooting
 - 6. Equipment replacement such as burners, sensors and devices.
 - 7. What to do when system fails

3.03 TRAINING

- A. Simulator contractor shall provide a minimum of two (2) training sessions with representatives of the Orange County Fire Authority for complete system operation, maintenance and basic troubleshooting Simulator contractor shall provide training of system operation and maintenance.

END OF SECTION

SECTION 13 00 25

EXTERIOR GAS METER PROP LEAK SIMULATOR

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. General Description: The gas meter leak trainer shall provide training in the safe approach, of an exterior leaking commercial gas meter.
- B. Work to include the following:
 - 1. Manufacture and install a commercial gas meter training prop at existing Strip Mall where shown on drawings. Prop shall simulate a typical commercial bank of meters comprised of at least four (4) meter units.
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Air compressor for pressurizing system
 - b. Wireless Control device
 - c. Conduit and wire for air and power: Extend service from inside existing Prop Equipment Room to point of connection at exterior building prop installer.
 - d. Coordination of installation and infrastructure requirements.
- C. Work to include full coordination with all adjacent trades. Coordination to include:
 - 1. Exterior wall construction
 - 2. Utility infrastructure provision and location
 - 3. Testing, Start-Up and Training
 - 4. Protection of new work in place

1.02 RELATED DOCUMENTS

- A. Approved contract drawings for the Strip Mall Building

1.03 SUMMARY

- A. General Description: The gas meter leak trainer shall provide training in the safe approach, of an exterior leaking commercial gas meter.
- B. Work to include the following:
 - 1. Manufacture and install a commercial gas meter training prop at existing Strip Mall where shown on drawings. Prop shall simulate a typical commercial bank of meters comprised of at least four (4) meter units.
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Air compressor for pressurizing system
 - b. Wireless Control device
 - c. Conduit and wire for air and power: Extend service at exterior of building from Control Room to point of connection at exterior building wall to be verified by prop installer.
 - d. Coordination of installation and infrastructure requirements with discipline trades.

- C. Work to include full coordination with all adjacent trades. Coordination to include:
 - 1. Exterior wall construction
 - 2. Utility infrastructure provision and location
 - 3. Protection of work in place.
- D. Related Sections:
 - 1. Division 16 00 00 General Electrical

1.04 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Complete Operation and Maintenance Manuals.
- C. Product literature
- D. Installation details showing required building modifications and coordination with other trades.

1.05 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of five (5) years after the final system acceptance date. If for any reason, other than misuse and abuse, the system should fail, the training simulator supplier shall provide all labor, materials and replacement parts to the Owner for the duration of the warranty period. The fire training simulator provider shall also provide a customer service telephone number that can be used by the Owner during normal business hours to report system problems.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable manufacturers for the provision and installation of the live fire interior fire trainers are listed below. The Basis-of-Design is the following product model and manufacturer:
 - 1. **FireBlast 451, Inc.** 4131 Tigris Way, Riverside, CA 92503
Telephone (951) 277-8319
Website: <http://www.fireblast.com>
 - 2. **KFT, Inc.**, 17 Philips Parkway, Montvale, NJ 07645
Telephone (201) 300-8100
Website: www.kiddeft.com
 - 3. **BullEx® Inc.** 20 Corporate Circle, Albany NY 12203.
Telephone (518) 689-2023.
Website www.bullex.com.
 - 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to bidding for review and acceptance by the Orange County Fire Authority.

2.02 EQUIPMENT

- A. Air Compressor: Small 110/208v, or compressed air tanks, with remote activation capability.
- B. Gas Meter mockup complete with simulated pipe fittings.

2.03 PERFORMANCE REQUIREMENTS

- A. The mockup shall consist of a gas piping assembly with an integrated commercial gas meter. The structure shall be designed to position the gas meter prop approximately 5 feet above the surface of the training area. The gas piping, near the body of the gas meter, shall be charged with air to create the simulated gas leak effect. The piping near the gas meter shall continue to leak until the operator commands the gas leak to cease in response to correct trainee techniques.

PART 3 - EXECUTION**3.01 GENERAL REQUIREMENTS**

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. The fire training system supplier shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- C. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- D. The fire training system supplier shall provide and extend electrical service from noted points of connection to terminus points as required for operation of the fire training equipment. Conduit between electrical panel and system PLC unit shall be provided by electrical contractor. All other power and conduit shall be provided by fire training system installer, unless otherwise noted on Drawings.
- E. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- F. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- G. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof. The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 INSTALLATION

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. Simulator shall be installed in accordance with manufacturer's specifications and guidelines.

3.03 START-UP AND TESTING

- A. Upon completion of installation, simulator contractor shall test system and operation.

3.04 TRAINING

- A. Simulator contractor shall provide a minimum of two (2) training sessions with representatives of the Orange County Fire Authority for complete system operation, maintenance and basic troubleshooting Simulator contractor shall provide training of system operation and maintenance.

END OF SECTION

SECTION 13 00 40

ELECTRICAL PANEL FIRE SIMULATOR

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. General Description: The electrical panel fire simulator shall consist of two (2) primary enclosures located in close proximity as indicated on Construction Documents and specified in this section.
- B. Work to include, but not limited to the following:
 - 1. Manufacture and install a simulated commercial electrical service fire training prop at Building 43, "Apartment".
 - 2. Provide and install supporting equipment and infrastructure for proper operation including but not limited to:
 - a. Primary control enclosure for equipment and smoke generation
 - b. Secondary control enclosure for service distribution prop simulation
 - c. Wireless Control device
 - d. Conduit and wire for power: Extend service at exterior of building from Prop Equipment Room #110 to point of connection at exterior building wall to be determined by owner.
 - e. Coordination of installation and infrastructure requirements with discipline trades.
- C. Related Sections:
 - 1. Division 16 00 00 General Electrical

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
 - 1. Refer to drawings for exterior location at Strip Mall Building
 - 2. Refer to drawings for exterior location at Training Tower Building

1.03 SUBMITTALS

- A. General: Submittals shall be prepared by the contractor as described herein and be submitted to Orange County Fire Authority (OCFA) for review and approval by the architect and/or engineer of record prior to the beginning of work.
- B. Complete Operation and Maintenance Manuals.
- C. Product literature
- D. Installation details showing required building modifications and coordination with other trades.

1.04 WARRANTY

- A. Warrant the system to be free from defects in material and workmanship for a period of five (5) years after the final system acceptance date. If for any reason, other than misuse and abuse, a part supplied should fail, the training simulator supplier shall supply a replacement part to the Owner. The contractor will provide a toll-free customer service telephone number that can be used by the Owner during normal business hours to report system problems.

PART 2 - PRODUCTS**2.01 MANUFACTURERS**

- A. Acceptable manufacturers for the provision and installation of the Electrical Panel Fire Simulator are listed below. The Basis-of-Design is the following product model and manufacturer:
1. Structural Fire Trainer Model "Raven" as manufacturer by:
FireBlast451, Inc., 545 Monica circle, Corona CA 92880
 Telephone (800) 716-1977
 Website: www.fireblast.com
 2. Structural Fire Trainer Model "T-1000" as manufacturer by:
KFT, Inc., 17 Philips Parkway, Montvale, NJ 07645
 Telephone (201) 300-8100
 Website: www.kiddeft.com
 3. **Bullex® Inc.** 20 Corporate Circle, Albany NY 12203.
 Telephone (518) 689-2023.
 Website www.bullex.com .
 4. Approved Equivalent.
NOTE: Equivalent providers to provide qualifications, certifications and references described within this specification section a minimum of ten (10) days prior to bidding for review and acceptance by the Orange County Fire Authority.

2.02 EQUIPMENT

- A. Enclosure 1 shall represent a mockup of a commercial electrical load center that is approximately 32-inches wide by 74-inches high by 9-inches deep. The commercial electrical load center shall contain the following built-in components:
1. Speakers: Produce intermittent electrical arcing and burning sounds associated with a class C fire effect.
 2. Multiple Strobe Lamps: Simulate the visual effects of electrical arcing and fire.
 3. Agent Sensor: Detect the application of water.
 4. Ventilation Louvers: Serve as smoke outlet ports.
- B. Enclosure 2 shall represent a safety disconnect switch panel that is approximately 38-inches wide by 48-inches high by 12-inches deep. This panel shall be National Electrical Manufacturer's Association (NEMA) 4 rated and shall contain the following components
1. Power Indicator: Indicates that power (120 VAC, 20 AMPS) has been applied to the simulator.
 2. Two-Position, Safety Disconnect Switch – Works in conjunction with a position sensor. The disconnect switch shall be used as an active training device to secure simulated "POWER" to the commercial load center.
 3. Smoke Generator Assembly: Capable of a minimal smoke output of 500 CFM.
 4. Sound Generator Control System: Generate various sound effects.
 5. Wireless Control System: Used to operate the training simulator.

2.03 PERFORMANCE REQUIREMENTS

- A. The simulator shall start and stop using a small wireless transmitter.
 - 1. When started the simulator shall produce, in response to trainee action, the following visual and audio effects using multi-colored strobe lamps and sound generator:
 - 2. Simulated electrical arcing when the disconnect switch is closed. Effects shall be generated using random, intermittent activation of appropriately colored and paired strobe lamps in synchronization with sound generator.
 - 3. Simulated flame state when the disconnect switch is opened. Effects shall be generated using random, intermittent activation of appropriately colored and paired strobe lamps in synchronization with sound generator.
 - 4. Simulated audible alarm effect when agent is applied with the disconnect switch closed.
- B. Smoke shall be produced and present when the simulator is started and cease when the simulator is turned off by the operator.
- C. Simulator visual and audio effects shall change automatically in response to trainee action.

PART 3 - EXECUTION**3.01 GENERAL REQUIREMENTS**

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. The fire training system supplier shall manufacture, provide, install, integrate and test the live fire training system defined in this specification.
- C. Prior to shipping the system and equipment to the site, an inspection team from the fire training equipment supplier shall perform a final site inspection to determine the readiness of the work to accept the system. The fire training system supplier shall be responsible for all costs associated with shipping and storage of their equipment.
- D. The fire training system supplier shall provide and extend electrical service from noted points of connection to terminus points as required for operation of the fire training equipment. Conduit between electrical panel and system PLC unit shall be provided by electrical contractor. All other power and conduit shall be provided by fire training system installer, unless otherwise noted on Drawings.
- E. The fire training system supplier shall provide five (5) copies of an Operator and Maintenance Manual to the Owner. The manual shall fully describe the delivered system and shall include sections on system operation, troubleshooting and maintenance, associated diagrams and drawings, and replaceable spare parts listing.
- F. The fire training system supplier shall conduct an operational readiness test with facility personnel in observance. The goal of this test shall be to show reliable operation of the system. Once this test has been completed the system shall be signed off by the Owner and be officially designated ready for training (RFT).
- G. All on-site work shall be performed by qualified personnel licensed in the State of California for the applicable work discipline. Qualified personnel shall also be licensed and insured per both Orange County Fire Authority and the City of Irvine's requirements and provide proof thereof.

The contractor shall furnish workers who perform quality work and who are experienced and knowledgeable in regards to the project scope of work.

3.02 INSTALLATION

- A. Examine areas and conditions with installer present for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected
- B. Simulator shall be installed in accordance with manufacturer's specifications and guidelines.

3.03 START-UP AND TESTING

- A. Upon completion of installation, simulator contractor shall test system and operation.

3.04 TRAINING

- A. Simulator contractor shall provide a minimum of two (2) training sessions with representatives of the Orange County Fire Authority for complete system operation, maintenance and basic troubleshooting. Simulator contractor shall provide training of system operation and maintenance.

END OF SECTION

SECTION 16 00 00

GENERAL ELECTRICAL

GENERAL 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 affect 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 Agency.
- 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 Agency.
- 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.
- B. In general, the electrical work as referred to herein shall consist of, but not be limited to, the items listed as follows:
 - 1. Lighting and power panels.
 - 2. Lighting power and control conduit/raceway systems.
 - 3. All conduit wiring, connections, and testing for work specified in Section 16000 of these specifications.
 - 4. Furnish and Install a 480v Distribution Panel Board.
 - 5. Furnish and Install all Required concrete footings.
 - 6. Furnish and Install all conduit and cable shown on drawings.

1.03 CODES AND STANDARDS

- A. All the equipment and materials shall conform to the latest revision of the following standards:
 - 1. American National Standards Institute (ANSI)
 - 2. Institute of Electrical and Electronic Engineers (IEEE)
 - 3. National Electrical Manufacturers Association (NEMA)
 - 4. Underwriters' Laboratories (UL)
 - 5. Insulated Power Cable Engineers Association (IPCEA)
 - 6. American Society for Testing and Materials (ASTM)
 - 7. National Electrical Code (NEC)
- 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.

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 Agency 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 COORDINATION OF THE ELECTRICAL SYSTEM

- A. The Contractor shall verify all actual equipment Protection settings with Electrical Engineer.

1.06 UTILITY COMPANY REQUIREMENTS

- A. All work for electrical power shall be performed in accordance with the requirements of the respective serving utility companies.
- B. Immediately after the award of the contract, the Contractor shall notify the serving utilities that the project is under construction and provide them with all pertinent information, including the dates on which the services will be required.
- C. The Contractor shall coordinate details and timing of and arrange for service entrance installation with the utility, provide all required temporary service, and include all utility connection fees for temporary service in his proposal. The Agency will pay for all permanent electrical services.

1.07 PERMITS AND INSPECTIONS

- A. 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 Agency, properly executed, all required certificates of final inspection and approval before the work will be accepted as complete.

1.08 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 Agency.

1.09 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.
- C. All locations exposed to weather are classified as wet locations. In this area classification, raceway shall be PVC coated rigid steel conduit; entrances shall be threaded; fittings shall have gasketed covers located at a low point to drain the fitting or conduit system. Threaded hardware shall be stainless steel. Mounting brackets shall be galvanized after fabrication. Instruments and control cabinets, panels, switchboards, and motor control centers located outdoors shall be "weatherproof." Enclosures shall be mounted with a 1/4 inch air space from walls unless otherwise noted on the plans.

1.10 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 as-built drawings are received by the Agency.
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 stub-outs 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 Agency's operating personnel for normal operational condition and utilizing names of controls as they appear on nameplates.
 - b. Calibration and maintenance instructions.
 - 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.

1.11 GROUNDING

- A. 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.

1.12 WARNING SIGNS

- A. Warning signs shall be 7 inches high by 10 inches wide, colored yellow and black, on not less than 18 gauge vitreous enameling stock.

CAUTION HIGH VOLTAGE

- 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.

1.13 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 Agency.
- 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 Agency.
- 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

- 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 which, 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.

1.14 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.

1.15 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 which are discovered during the time of this guaranty shall be repaired or replaced at no cost to the Agency. 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.

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. Jacketed 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 which corresponds with the labeled conduits in the facility.

2.03 CONDUIT FITTINGS, OUTLET AND PULLBOXES

- A. Conduit fittings shall be cast or malleable of a nonferrous metal.
- B. Jacketed 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 case of non-ferrous metal 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 smaller 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 LIGHTING FIXTURES AND LAMPS

- A. Fluorescent lighting fixtures shall be equipped with high power factor Class "P", ETL and CBM approved, sound-rated ballast. Voltage shall be as indicated.
- B. High intensity discharge fixtures shall be equipped with high power factor, constant wattage ballast and shall be fused. Voltage shall be as indicated.
- C. Fluorescent lamps shall be standard cool white except as noted. Incandescent lamps shall be extended service type, rated for 125 volts. High intensity discharge lamps shall be color corrected.

2.08 PANELBOARDS

- A. Lighting and power panelboards shall be mounted as indicated on the plans with quantity an size of thermalmagnetic molded case circuit breakers inducted 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.

2.09 RELAYS AND TIME SWITCHES

- A. Relays: Magnetically held relays shall have convertible contacts, and all relays shall be provided with one spare contract. 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.

2.10 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 indicated 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. Liquid tight, 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.

Phase	120/208 volts	277/480 volts
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 LIGHTING FIXTURES

- A. All lighting fixtures shall be cleaned and any damaged parts including lens, burned out lamps or noisy ballasts shall be replaced prior to final acceptance. All fixtures shall be properly mounted and securely supported. Pendant or suspended fixtures shall be mounted and secured in an approved manner to withstand earthquake damage. Lighting fixtures shall be effectively grounded.

3.06 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.

3.07 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.

3.08 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.

3.09 EARTHWORK

- A. Excavation and backfill necessary for proper installation of the electrical work shall conform to the provisions of the Section of earthwork in these specifications.

3.10 CUTTING AND REPAIRING

- A. 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 demolitions 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.

3.11 DISSIMILAR METALS

- A. 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.

PART 4 - FIXTURES

4.01 GENERAL

- A. The Contractor shall furnish, install and connect all fixtures in accordance with the fixture schedule, the drawings and as hereinafter specified. All fixtures shall be installed complete with lamps, all fittings and accessories, wiring and connections necessary for their complete installation and correct operation and control. All labels shall be removed from sight when viewed from below.

4.02 BALLASTS

- A. All fluorescent fixtures shall be equipped with energy saving advance Mark III Kool Koil, high-power-factor ballasts. All ballasts shall be equipped with non-resetting thermal cutouts. After installation is completed, any ballasts which are judged to be excessively noisy by the Agency shall be removed and replaced at no extra charge.

4.03 LAMPS

- A. All lamps shall be General Electric, Westinghouse or Sylvania. Type of lamp and wattage as shown on fixture schedule, on drawings or as required by the specified fixture. Incandescent lamps shall be 130 volt.

END OF SECTION

Please contact the
OCFA Clerk of the Authority Office
during regular business hours
at 714 573-6040
to obtain copies of the Plans
referenced in this attachment.