



ORANGE COUNTY FIRE AUTHORITY

AGENDA

BOARD OF DIRECTORS REGULAR MEETING

Thursday, November 19, 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 Brett Peterson

PLEDGE OF ALLEGIANCE by Director Johnson

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 Human Resources Committee Vice Chair

C. Report from the Fire Chief:

- Silverado & Blue Ridge Fire Wrap-Up
- OCFA Toy Drive

1. PRESENTATIONS

- Recognition GFOA Budget Award
- Recognition of Purchasing Award
- Recognition of CAFR Award

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 October 22, 2020, Regular Meeting of the Board of Directors

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

Recommended Action:

Approve as submitted.

B. 2021 Board Meetings Schedule

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

Recommended Action:

Adopt the proposed Resolution entitled A RESOLUTION OF THE ORANGE COUNTY FIRE AUTHORITY BOARD OF DIRECTORS ESTABLISHING THE REGULAR MEETING DATES FOR CALENDAR YEAR 2021.

C. Audited Financial Reports for the Fiscal Year Ended June 30, 2020

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

Budget and Finance Committee reviewed the proposed agenda item and directed staff to place on the Board of Directors agenda for approval by 7-0 vote (Farias and Rossini absent).

Recommended Actions:

1. Receive and approve the reports.
2. Review the calculations used to determine the fund balance amounts assigned to the capital improvement program and workers' compensation and confirm the calculations' consistency with the OCFA's Assigned Fund Balance Policy.

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:

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 categorically exempt from CEQA.

E. 2019 Homeland Security Grant Program

Submitted by: Shane Sherwood, Division Chief and Jay Barkman, Legislative Analyst

Budget and Finance Committee reviewed the proposed agenda item and directed staff to place on the Board of Directors agenda for approval by 7-0 vote (Farias and Rossini absent).

Recommended Actions:

1. Approve and authorize the Fire Chief to execute any necessary agreement(s) to accept and administer the FY 2019 Homeland Security Grant Program.
2. Approve a budget adjustment to the FY 2020/21 General Fund (121) budget to increase revenues and expenditures by \$180,000 for the grant program award.

F. 2019 Urban Areas Security Initiative Grant Program Agreement to Transfer Property or Funds

Submitted by: Shane Sherwood, Division Chief and Jay Barkman, Legislative Analyst

Budget and Finance Committee reviewed the proposed agenda item and directed staff to place on the Board of Directors agenda for approval by 7-0 vote (Farias and Rossini absent).

Recommended Actions:

1. Approve and authorize the Fire Chief to execute the agreement and any necessary attachments to accept and administer the Urban Area Security Initiative (UASI) Grant Program award.
2. Approve a Budget Adjustment to the FY 2020/21 General Fund (121) budget to increase revenue and expenditures by \$48,600 for the grant program award.

3. DISCUSSION**A. FY 2020/21 Fiscal Update & Snowball Pension Paydown Payment**

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

Budget and Finance Committee reviewed the proposed agenda item and directed staff to place on the Board of Directors agenda for approval by 7-0 vote (Farias and Rossini absent).

Recommended Actions:

1. Receive and file the FY 2020/21 Fiscal Update.
2. Direct staff to remit the FY 2020/21 budgeted Snowball pension paydown payment of \$12.4 million to OCERS prior to December 31, 2020.

4. PUBLIC HEARING

No Items.

BOARD MEMBER COMMENTS**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 - Significant exposure to litigation pursuant to paragraph (2) or (3) of subdivision (d) of Section 54956.9 of the Government Code:
Two (2) Cases

CLOSED SESSION REPORT

ADJOURNMENT – The December 2020 regular meeting is canceled. The next regular meeting of the Orange County Fire Authority Board of Directors is scheduled for Thursday, January 28, 2021, 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
Executive Committee Meeting
Board of Directors Meeting
Human Resources Committee Meeting

Wednesday, January 13, 2021, 12 noon
Thursday, January 28, 2021, 5:30 p.m.
Thursday, January 28, 2021, 6:00 p.m.
Tuesday, February 2, 2021, 12 noon

MINUTES ORANGE COUNTY FIRE AUTHORITY

**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 92602-0125

CALL TO ORDER

A regular meeting of the Orange County Fire Authority Board of Directors was called to order on October 22, 2020, at 6:03 p.m. by Chair Hasselbrink.

INVOCATION

Chaplain Jim Gwaltney offered the invocation.

PLEDGE OF ALLEGIANCE

Director Gamble 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*
Carol Gamble, Rancho Santa Margarita*	Noel Hatch, Laguna Woods*
Dave Harrington, Aliso Viejo*	Gene Hernandez, Yorba Linda*
Robert Johnson, Cypress*	Anthony Kuo, Irvine
Thomas Moore, Seal Beach*	John R. O'Neill, Garden Grove*
Dave Shawver, Stanton*	Don Sedgwick, Laguna Hills*
Michele Steggell, La Palma*	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: Sergio Farias, San Juan Capistrano
Sandy Rains, Laguna Niguel

Joseph Muller, Dana Point
Ed Sachs, Mission Viejo

Also present were:

Fire Chief Brian Fennessy
Deputy Chief Pokey Sanchez
Assistant Chief Randy Black
Assistant Chief Jim Ruane
General Counsel David Kendig
Clerk of the Authority Maria Huizar

Deputy Chief Lori Zeller
Assistant Chief Kenny Dossey
Assistant Chief Robert Cortez
Assistant Chief Lori Smith
Assistant Chief Stephanie Holloman
Dir. of Communications Colleen Windsor

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 Chair Gene Hernandez reported at the October 14, 2020, regular meeting, the Committee voted unanimously to approve and forward the Monthly Investment Reports to the Executive Committee to receive and file the reports. The Committee also voted unanimously to approve and forward the Approval of Annual Statement of Investment Policy, Broker/Dealer List and Investment Authorization to the Board of Directors for approval of the recommended actions. Lastly, Assistant Chief Cortez provided a review of the upcoming November Budget and Finance Committee agenda items.

B. Report from the Fire Chief (FILE 11.14)

Fire Chief Fennessy reported on the extent of the wildfires throughout California, noting more than 4.13 million acres have burned this year; Yorba Linda Water District will be unveiling its Heli-Hydrant, a 2,700-gallon water tank that serves as a remote water source for firefighting helicopters; and reported on an award OCFA received for Internal Communications from the Public Relations Society of America, and invited Director of Communications Colleen Windsor to speak about the award and the work being accomplished in the Communications Department.

1. PRESENTATIONS

No Items.

2. CONSENT CALENDAR

On motion of Director Hernandez and second by Director Johnson, and following a roll call vote, declared passed 21-0 (Directors Farias, Muller, Rains, and Sachs absent) with staff pulling Agenda Item 2D to be presented at the November Board of Directors meeting.

A. Minutes from the September 24, 2020, Regular Meeting of the Board of Directors (FILE 11.06)

Action: Approve as submitted.

B. Approval of Annual Statement of Investment Policy, Broker/Dealer List and Investment Authorization (FILE 11.10D4) (X: 11.10D)

Action:

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 (FILE 20.02A1)

Action:

1. Adopt the Resolution No. 2020-07 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 (FILE 19.07B25)

This item was continued for consideration to the November 19, 2020, Board of Directors meeting.

3. DISCUSSION

No Items.

4. PUBLIC HEARING

No Items.

BOARD MEMBER COMMENTS

The Board Member offered no comments.

CLOSED SESSION (FILE 11.15)

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).

Minutes

OCFA Board of Directors Regular Meeting

October 22, 2020 Page - 3

General Counsel David Kendig reported the Board of Directors would convene to Closed Session to consider the matter on the agenda identified as CS.1. Conference with Legal Counsel – Anticipated Litigation.

Chair Hasselbrink recessed the meeting to Closed Session at 6:15 p.m.

Chair Hasselbrink reconvened the meeting from Closed Session at 8:24 p.m. with all members present.

CLOSED SESSION REPORT (F: 11.15)

General Counsel David Kendig reported there was no reportable action.

ADJOURNMENT – Chair Hasselbrink adjourned the meeting at 8:25 p.m. 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.

Maria D. Huizar, CMC
Clerk of the Authority



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 19, 2020

Agenda Item No. 2B
Consent Calendar

2021 Board Meetings Schedule

Contact(s) for Further Information

Robert Cortez, Assistant Chief robertcortez@ocfa.org 714.573-6012
Business Services Department

Maria D. Huizar, Clerk of the Authority mariahuizar@ocfa.org 714.573.6041

Summary

This item is submitted for approval of the regular meeting schedule for the Board of Directors Meetings for calendar year 2021.

Prior Board/Committee Action

Not applicable.

RECOMMENDED ACTION(S)

Adopt the proposed Resolution entitled A RESOLUTION OF THE ORANGE COUNTY FIRE AUTHORITY BOARD OF DIRECTORS ESTABLISHING THE REGULAR MEETING DATES FOR CALENDAR YEAR 2021.

Impact to Cities/County

Not Applicable.

Fiscal Impact

There are no fiscal impacts associated with this recommended action.

Background

On November 15, 2018, the Board approved expanding its regular meeting schedule to meet monthly for the purpose of the completion of the labor negotiation process with the Orange County Professional Firefighters Association, Local 3631 and the Orange County Fire Authority Managers Association. Those negotiations have concluded; however, the OCFA Management Association's and Orange County Employees Association's (OCEA) contracts will expire on June 24, 2021 and August 22, 2021 respectively and will need to continue meeting on a regular basis to provide direction on labor contract negotiations.

The Board of Directors Rules of Procedure establishes the time and place for regular meetings. Rule 1 expressly sets the fourth Thursday of each odd numbered month at 6:00 p.m. to hold regular meetings but may be modified by resolution. The proposed Resolution allows for the Board to continue to meet every month on the fourth Thursday of the month, apart from the August and December meetings that are canceled and the November meeting that is changed to the third Thursday of the month at 6:00 p.m., due to the Thanksgiving holiday. The schedule will continue the Board's tradition of going dark in the months of August and December. Similarly, all committees with the exception of the Human Resources Committee will also go dark in August and December.

In keeping with the Board Rules of Procedure, the Board Chair has the discretion to cancel any meeting should there be a lack of business. Also, the Brown Act allows special meetings to be called, as needed.

Recommendation

OCFA staff recommends that the Board approve the 2021 Meeting Schedule for the Board of Directors as proposed in attachment.

Attachment(s)

Proposed Resolution

RESOLUTION NO. 2020-XX

**A RESOLUTION OF THE ORANGE COUNTY FIRE
AUTHORITY BOARD OF DIRECTORS ESTABLISHING
THE REGULAR MEETING DATES FOR CALENDAR
YEAR 2021**

WHEREAS, the Orange County Fire Authority and Board of Directors was established on March 1, 1995;

WHEREAS, the Board of Directors approves Rules of Procedure in which the time and place of regular meetings of the Board of Directors are established and provides for changes to be made by resolution;

WHEREAS, on November 21, 2019 the Board of Directors approved the regular meeting calendar for 2020 for the Board of Directors to meet every month on the fourth Thursday of the month at 6:00 p.m., apart from the August and December meetings that were canceled and the November meeting that was held on the third Thursday of the month;

WHEREAS, the Board of Directors wish to continue meeting on a monthly basis with the same exceptions as noted above; and

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Orange County Fire Authority does hereby adopt the attached exhibit establishing meeting dates for calendar year 2021.

PASSED, APPROVED and ADOPTED this ____ day of November 2020.

SHELLY HASSELBRINK, CHAIR
Board of Directors

ATTEST:

MARIA D. HUIZAR, CMC
Clerk of the Authority



ORANGE COUNTY FIRE AUTHORITY

BOARD OF DIRECTORS 2021 MEETING SCHEDULE

MEETING DATE	MEETING TYPE	TIME
January 28	Board of Directors	6:00 pm
February 25	Board of Directors	6:00 pm
March 25	Board of Directors	6:00 pm
April 22	Board of Directors	6:00 pm
May 27	Board of Directors	6:00 pm
June 24	Board of Directors*	6:00 pm
July 22	Board of Directors	6:00 pm
August 26 – Canceled	Board of Directors	
September 23	Board of Directors	6:00 pm
October 28	Board of Directors	6:00 pm
November 18**	Board of Directors	6:00 pm
December 23 – Canceled	Board of Directors	

** Regular Meeting Date Changed due to Thanksgiving Holiday

Meetings held at the Orange County Fire Authority Headquarters, Regional Fire Operations and Training Center (RFOTC), One Fire Authority Road, Irvine, California 92602



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 19, 2020

Agenda Item No. 2C
Consent Calendar

Audited Financial Reports for the Fiscal Year Ended June 30, 2020

Contact(s) for Further Information

Robert Cortez, Assistant Chief Business Services Department	robertcortez@ocfa.org	714.573.6012
Julie Nemes, Finance Manager/Auditor	julienemes@ocfa.org	714.573.6304
Tammie Pickens, General Accounting Manager	tammiepickens@ocfa.org	714.573.6320

Summary

This annual agenda item is submitted to present the OCFA's audited Comprehensive Annual Financial Report (CAFR) and other audited financial reports for the fiscal year ended June 30, 2020, in compliance with the provisions of Section 6505 of the California Government Code and the Amended Joint Powers Agreement.

Prior Board/Committee Action

Budget and Finance Committee reviewed the proposed agenda item and directed staff to place on the Board of Directors meeting agenda for approval by a 7-0 vote (Farias and Rossini absent).

RECOMMENDED ACTION(S)

1. Receive and approve the reports.
2. Review the calculations used to determine the fund balance amounts assigned to the capital improvement program and workers' compensation and confirm the calculations' consistency with the OCFA's Assigned Fund Balance Policy.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

See attached expanded background.

Attachment(s)

1. Comprehensive Annual Financial Report (CAFR) for the Year Ended June 30, 2020
2. Report on Internal Control for the Year Ended June 30, 2020
3. Audit Communication Letter for the Year Ended June 30, 2020
4. Assigned Fund Balance Calculations as of June 30, 2020 for:
 - A. Capital Improvement Program
 - B. Workers Compensation
5. Calculation of Unencumbered Fund Balance as of June 30, 2020

Background

Financial Audit and Reports

Lance, Soll & Lunghard, LLP, Certified Public Accountants (LSL), performed OCFA's annual financial audit for Fiscal Year 2019/20. Their work included an audit of OCFA's Financial Statements in accordance with generally accepted auditing standards (GAAS); a review of internal controls to determine the depth of planned audit procedures; and a Single Audit of federal grant expenditures. The following Fiscal Year 2019/20 audit reports are being submitted for approval:

- **Comprehensive Annual Financial Report (CAFR)** (Attachment 1) – OCFA's Finance Division staff has prepared the CAFR for the fiscal year ended June 30, 2020. This report includes OCFA's audited Financial Statements, as well as additional background and multi-year statistical information covering OCFA's financial trends, revenue and debt capacity, demographic and economic information, and operating information. The auditors issued an unmodified or "clean" opinion, which states that OCFA's Financial Statements are fairly presented, in all material respects, in accordance with generally accepted accounting principles (GAAP).
- **Report on Internal Control** (Attachment 2) – The auditors have reported no significant deficiencies or material weaknesses in their report on internal control over financial reporting, compliance, and other matters.
- **Audit Communication Letter** (Attachment 3) – Professional standards require the auditors to communicate certain information pertaining to the audit directly to those charged with the governance. This letter provides communication in several areas, including qualitative aspects of OCFA's accounting practices, any difficulties encountered while performing the audit, corrected and uncorrected financial statement misstatements, any disagreements with management, management's representations to the auditors, any consultation with other auditors, other audit findings or issues, and various other matters. For Fiscal Year 2019/20, LSL identified the handling of emergency purchases during the COVID-19 pandemic as a matter to bring to the attention of the Board of Directors. LSL is recommending that OCFA re-evaluate its practice of when emergency purchases are provided to the Executive Committee in order to allow for a more timely review of these purchases by the governing body.

The Single Audit includes a review of federal grant funds expended by OCFA during the fiscal year. The major program selected for more in-depth testing during Fiscal Year 2019/20 was the Assistance to Firefighters Grant (AFG) program, which included programs for Fire Ground Survival (FGS) and COVID-19 Supplemental. The federal Office of Management and Budget (OMB) has yet to release specific audit guidance relating to any COVID-19 grants. Even though the majority of Single Audit test work has been completed, LSL is unable to finalize OCFA's results and issue the report until the OMB audit guidance is released. Once finalized, the Single Audit report will be brought forward for separate receipt and approval.

The CAFR will be published electronically on OCFA's website. The CAFR and other audit reports will be filed with the County Auditor-Controller, the State Controller's Office, the State Auditor, the Federal Audit Clearinghouse, and other grant agencies, as applicable. Copies for public review are available at the office of the Clerk of the Authority.

Assigned Fund Balance

The Board of Directors has adopted an *Assigned Fund Balance Policy*, which delegates authority to assign fund balance amounts for the capital improvement program and workers' compensation from the Board of Directors to the Deputy Chief of the Administrative & Support Bureau, or his/her designee, with a final review of the calculation by the Budget and Finance Committee. The Budget and Finance Committee's review of the calculation occurs each year at the time the audited financial statements are approved and confirms the calculation's consistency with the provisions of the policy. OCFA's fund balance as of June 30, 2020, includes assignments for the capital improvement program (\$32,017,913) and workers' compensation (\$98,998,999), with detailed calculations included as Attachments 4A and 4B.

Net Pension Liability vs. Unfunded Actuarial Accrued Liability

OCFA follows GASB Statements No. 68 *Accounting and Financial Reporting for Pensions* and No. 71 *Pension Transition for Contributions Made Subsequent to the Measurement Date*. Under these accounting standards, the **funding** or paying of OCFA's pension liability is disconnected from the **reporting** of the liability and related pension expense in the audited financial statements.

Each year OCFA receives two separate actuarial valuations from the Orange County Employees Retirement System (OCERS) that are used to identify OCFA's annual costs and future obligations pertaining to the retirement plan for its full-time employees. Both actuarial valuations are prepared by Segal Consulting (Segal) on behalf of OCERS using a "measurement date" of December 31.

- **Funding Valuation:** The "funding valuation" is used to determine OCFA's Unfunded Actuarial Accrued Liability (UAAL) and to set required contribution rates for the upcoming fiscal year. The method in which governmental employers fund their UAAL is systematic and assumed to occur over a long period of time. Contributions paid annually over the UAAL's amortization period are intended to accumulate to an amount necessary to fund the UAAL over time. OCFA's UAAL as reported in the December 31, 2019, funding valuation totaled \$435 million.
- **GASB Reporting Valuation:** The "GASB reporting valuation" is used to determine OCFA's Net Pension Liability (NPL), annual pension expense, and related calculations for financial reporting purposes in compliance with GASB Statement No. 68. The actuarial assumptions in this report differ from the "funding valuation" since they must comply with national GASB standards that are consistently applied by all governments. Amounts in this valuation may materially change from one year to the next, creating more volatility in the pension expense recognized in the financial statements (as compared to the required contributions identified in the "funding valuation"). OCFA's NPL for its OCERS pension plan reported in the June 30, 2020, audited financial statements totaled \$354 million. More detailed information regarding this long-term net liability can be found on the Statement of Net Position and in the Notes to the Financial Statements No. 23 (Attachment 1).

Currently, the net difference between OCFA's UAAL (funding) and NPL (reporting) is \$81 million, which is the result of different liability and asset values used in measuring these amounts in the separate actuarial valuations. The primary differences are attributed to the NPL being calculated using the plan's current market value of assets, and the UAAL being calculated by adjusting the market value of assets for asset smoothing per the OCERS Actuarial Funding Policy. Differences are also created by timing differences of when actuarial gains and losses are recognized in the liability calculation for financial reporting purposes compared to funding valuation purposes. Segal has provided OCERS with a reconciliation to assist in understanding

the underlying differences between the UAAL and the NPL for the retirement plan as a whole. Following is a recap of the Segal reconciliation including only the rate groups applicable to OCFA:

	Rate Group #8 (Safety)	Rate Group #10 (General)	OCFA Total
Liability Reconciliation			
Actuarial accrued liability (L1)	\$1,912,937,000	\$264,624,000	\$2,177,561,000
Gains (losses) from lower (higher) than expected:			
Salary increases	(6,172,000)	(1,951,000)	(8,123,000)
Cost of living increases	(10,717,000)	(2,285,000)	(13,002,000)
Other experience gain or (loss)	(3,788,000)	(2,907,000)	(6,695,000)
Gain (loss) from rolled forward to actual liabilities	(406,989)	23,904	(383,085)
Total pension liability (L2)	\$1,891,853,011	\$257,504,904	\$2,149,357,915
Asset Reconciliation			
Valuation of assets (A1)	\$1,524,358,000	\$218,521,000	\$1,742,879,000
Adjustment for deferred investment return and non-valuation reserve	45,553,269	6,530,189	52,083,458
Market value of assets (A2)	\$1,569,911,269	\$225,051,189	\$1,794,962,458
Net Reconciliation			
Unfunded Actuarial Accrued Liability (UAAL) (L1-A1)	\$388,579,000	\$46,103,000	\$434,682,000
Net Pension Liability (NPL) (L2-A2)	\$321,941,742	\$32,453,715	\$354,395,457
Net Difference (UAAL – NPL)	\$66,637,258	\$13,649,285	\$80,286,543
Difference in Liabilities	\$21,083,989	\$7,119,096	\$28,203,085
Difference in Assets	\$(45,553,269)	\$(6,530,189)	\$(52,083,458)

Structural Fire Fund

The Amended Joint Powers Agreement gives the Board of Directors the sole discretion to determine if sufficient unencumbered funds from the prior fiscal year are available for OCFA-related services or resource enhancements to over-funded Structural Fire Fund (SFF) members. This determination is made after consideration of the audited Financial Statements and after consideration of the OCFA's financial needs. Based on the audited Financial Statements for the fiscal year ended June 30, 2020, the unencumbered fund balance is \$13,534,587 (Attachment 5), which is 3.00% of the General Operating Fund budget for Fiscal Year 2020/21. Additional information on staff's recommendation for the \$13,534,587 fund balance allocation will be included with the 2020 Long Term Liability Study item tentatively scheduled for January 2021.

CAFR 2020

FISCAL YEAR ENDED JUNE 30



COMPREHENSIVE ANNUAL FINANCIAL REPORT
ORANGE COUNTY FIRE AUTHORITY
ORANGE COUNTY, CALIFORNIA
BUSINESS SERVICES DEPARTMENT / FINANCE DIVISION



Orange County Fire Authority Comprehensive Annual Financial Report Year ended June 30, 2020

Board of Directors As of June 2020

Shelley Hasselbrink, Chair

City of Los Alamitos
(Board Member Since 2015)

Vince Rossini, Vice Chair

City of Villa Park
(Board Member Since 2017)

Dave Harrington
City of Aliso Viejo
(Board Member Since 2017)

Michele Steggell
City of La Palma
(Board Member Since 2015)

Carol Gamble
City of Rancho Santa
Margarita
(Board Member Since 2011)

Letitia Clark
City of Tustin
(Board Member Since 2019)

Elizabeth Swift
City of Buena Park
(Board Member Since 2011)

Don Sedgwick
City of Laguna Hills
(Board Member Since 2015)

Kathy Ward
City of San Clemente
(Board Member Since 2019)

Tri Ta
City of Westminster
(Board Member Since 2009)

Rob Johnson
City of Cypress
(Board Member Since 2013)

Sandy Rains
City of Laguna Niguel
(Board Member Since 2019)

Sergio Farias
City of San Juan Capistrano
(Board Member Since 2017)

Gene Hernandez
City of Yorba Linda
(Board Member Since 2013)

Joseph Muller
City of Dana Point
(Board Member Since 2015)

Noel Hatch
City of Laguna Woods
(Board Member Since 2013)

Juan Villegas
City of Santa Ana
(Board Member Since 2016)

Lisa Bartlett
County of Orange
(Board Member Since 2015)

John R. O'Neill
City of Garden Grove
(Board Member Since 2019)

Mark Tettemer
City of Lake Forest
(Board Member Since 2020)

Thomas Moore
City of Seal Beach
(Board Member Since 2019)

Donald Wagner
County of Orange
(Board Member Since 2019)

Anthony Kuo
City of Irvine
(Board Member Since 2020)

Ed Sachs
City of Mission Viejo
(Board Member Since 2015)

David Shawver
City of Stanton
(Board Member Since 1995)

Brian Fennessy Fire Chief

Prepared by OCFA Finance Division

Photos provided by OCFA Multimedia

Orange County Fire Authority



Mission Statement

We proudly serve the changing needs of our communities by providing exceptional emergency and support services. We pledge a commitment to preserving the quality of life."

Vision Statement

We are dedicated to protecting lives and property with first class public safety and emergency services through courage, compassion, and competency.

Values Statement and Service Principles

We rely on our PEOPLE and our Service Principles as we carry out our mission with:

- Professionalism
- Enthusiasm
- Organizational Integrity
- Pride
- Leadership
- Effectiveness

Service Principles guide our relationships with each other and with our customers:

- | | | |
|----------------------------|---------------------------|------------------------|
| • Safety | • Excellence | • Honesty and Fairness |
| • Financial Responsibility | • Ethics | • Reliability |
| • Teamwork | • Personal Accountability | • Diversity |
| • Trust | • Care and Respect | • Integrity |

Motto

In service of others!

ORANGE COUNTY FIRE AUTHORITY
Comprehensive Annual Financial Report
Year ended June 30, 2020

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Introductory Section



Academy 48 Graduation
November 23, 2019



ORANGE COUNTY FIRE AUTHORITY

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

(714) 573-6000

www.ocfa.org

October 8, 2020

The Board of Directors
Orange County Fire Authority
1 Fire Authority Road
Irvine, California 92602

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Orange County Fire Authority (OCFA) for the fiscal year ended June 30, 2020. This report consists of management's representations concerning the finances of the OCFA and is presented using the financial reporting model outlined in statements issued by the Governmental Accounting Standards Board (GASB). Consequently, management assumes full responsibility for the completeness and reliability of all of the information presented in this report. As management, we assert that this financial report is complete and reliable in all material respects, to the best of our knowledge and belief.

To provide a reasonable basis for making its representations, OCFA management has established a comprehensive internal control framework. This framework is designed to provide reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition and that accounting transactions are executed in accordance with management's authorization and properly recorded so that the financial statements can be prepared in conformity with generally accepted accounting principles (GAAP). Because the cost of a control should not exceed the benefits to be derived, the objective of the internal control framework is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. The design and operation of internal controls also ensures that federal and state financial assistance funds are expended in compliance with applicable laws and regulations related to those programs.

OCFA's financial statements have been audited by Lance, Soll & Lunghard, LLP, a firm of certified public accountants. The independent auditor concluded, based upon the audit, that there was a reasonable basis for rendering an unmodified opinion that the OCFA's financial statements for the fiscal year ended June 30, 2020, are fairly presented in conformity with GAAP. The independent auditors' report is presented as the first component of the financial section of this report.

The Management's Discussion and Analysis (MD&A) narrative provides "financial highlights" and interprets the financial reports by analyzing trends and by explaining changes, fluctuations, and variances in the financial data. The MD&A is also intended to disclose any known significant events or decisions that affect the financial condition of the OCFA. The MD&A complements, and should be read in conjunction with, this letter of transmittal.

Background Information on the OCFA

OCFA was formed on March 1, 1995, transitioning from the Orange County Fire Department to a joint powers authority (JPA) as allowed by California State Government Code 6500 et seq. OCFA is an independent entity similar to a special district. The service area includes twenty-three member cities and the unincorporated areas of Orange County. A twenty-five member Board of Directors governs the OCFA, including an elected official appointed to represent each member city and two representatives from the County Board of Supervisors. OCFA is managed by an appointed Fire Chief who reports to the Board of Directors.

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

The appropriated budget is allocated by fund and department. Department Chiefs may make transfers of appropriations within a department. Transfers of appropriations between departments require the approval of Executive Management, and transfers between funds require the approval of the Board. Budget-to-actual comparisons are provided in this report for each individual governmental fund for which an appropriated annual budget has been adopted. A Budgetary Comparison Statement for the General Fund is presented in the governmental funds section of the accompanying financial statements. Budgetary Comparison Schedules for all remaining governmental funds with appropriated annual budgets are presented in the supplementary schedules section of the accompanying financial statements.

The information presented in the financial statements is best understood when it is considered from the broader perspective of the local economic environment within which OCFA operates.

Orange County is located along the southern coast of California, with Los Angeles County to the north; San Diego County to the south; and Riverside and San Bernardino counties to the east. Orange County covers an area of 799 square miles, with 42 miles of coastline along the Pacific Ocean, and is home to nearly 3.2 million people.¹

Economic Overview:

The onset of the coronavirus (COVID-19) pandemic and “stay-at-home” shutdown of March 2020 has decimated the U.S. economy. The federal response to combat the current recession through fiscal policy and stimulus has been much more rapid when compared to the previous Great Recession. However, the economic future is still uncertain as each state re-opens its economy at a different pace. The threat of new surges in COVID-19 cases may lead to slower re-openings or new economic shutdowns in the coming months.²

Before the COVID-19 shutdown, the state and local economy were growing at a slow but steady rate. Orange County's unemployment rate was 2.8% in February 2020 but jumped to 13.7% by June 2020³. Most pandemic-related job losses and furloughs have been concentrated in lower-paying retail, leisure, and hospitality areas. Orange County has a diverse economy with its largest employment sectors in business/professional services (20%), trade/transportation/utility services (15%), education/health services (14%), and leisure/hospitality services (14%)⁴. This diversity, along with a resilient construction sector, may help to soften the overall economic blow as the county re-opens and begins to recover.⁵

¹ California Department of Finance, <http://www.dof.ca.gov/forecasting/demographics/estimates>, Table E-5 *Population and Housing Estimates for Cities, Counties, and the State, January 2012-2020*

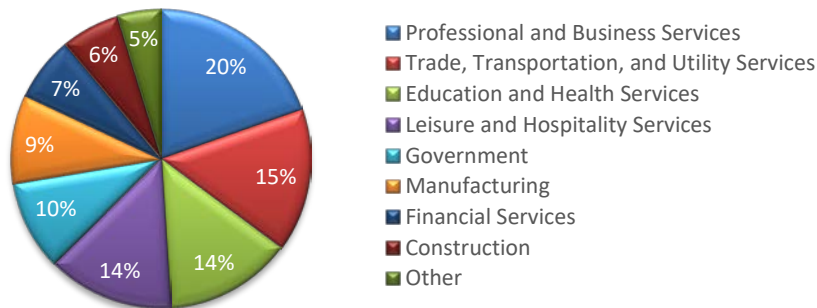
² Chapman University, *Economic & Business Review*, June 2020, *The COVID-19 Recession: How Quickly Will It End?*

³ Bureau of Labor Statistics, https://www.bls.gov/eag/eag.ca_santaana_md.htm, Local Area Unemployment Statistics, Anaheim-Santa Ana-Irvine, CA Metropolitan Division

⁴ Chapman University, *Economic & Business Review*, June 2020, Table 11 *Orange County Variables, Annual History and Forecasts: 2015-2020*

⁵ Chapman University, *Economic & Business Review*, June 2020, *Orange County Feels the Pain: But Its Economic Diversity Lessens It*

**Orange County, California
2019 Payroll Employment by Sector**



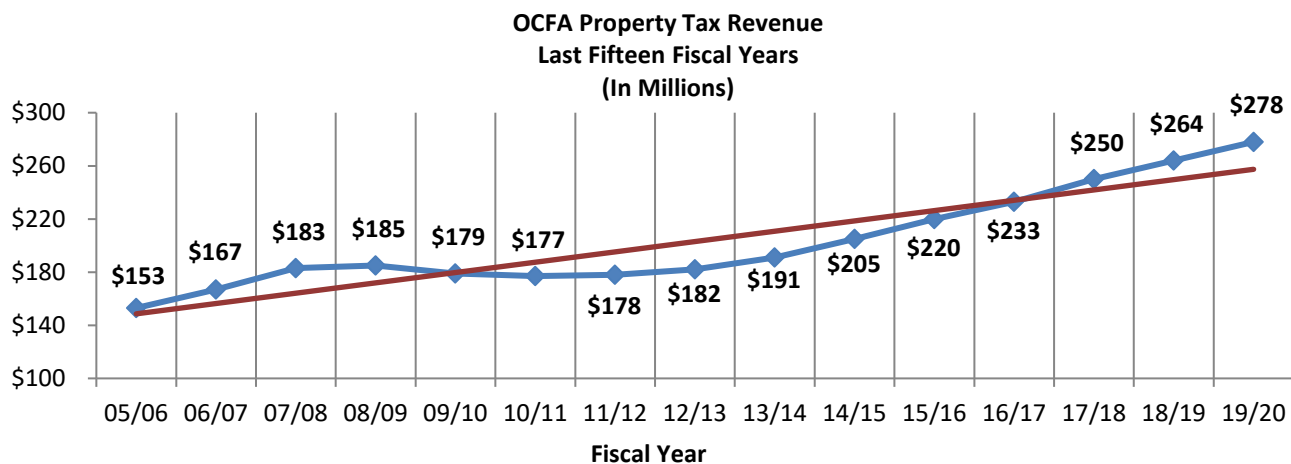
Income and Housing Affordability:

Households in Orange County have a median annual income of \$89,759, which exceeds state and national levels.⁶ However, the county has long experienced a high cost of living and a shortage of affordable housing for its residents. Salaries have not kept up with rising home prices and there has not been enough stock of single-family and multi-family residences available to meet demand. Over the last year, changes in the housing market have produced some modest improvements in housing affordability.

The median price for a single-family home in Orange County was \$822,662 in 2019, an increase of 0.9% over the prior year. At the same time, the number of residential building permits issued in the last year has increased 21.1% – from 8,105 permits in 2018 to 9,816 permits in 2019. As home values have increased at a slower rate and mortgage rates have dropped, the number of Orange County households that can afford to purchase a home has improved. The affordability index for a median priced, single-family home increased from 63.6% in 2018 to 71.2% in 2019.⁷

Property Taxes:

The most significant local economic factor impacting OCFA is Orange County's housing market, including fluctuations in new construction activities and housing prices. Property taxes derived from these activities comprised 59.1% of the OCFA's total governmental funds revenues in Fiscal Year 2019/20. As previously described, new construction remains active and home prices continue to rise. OCFA's property tax revenues have steadily increased over the last eight fiscal years since the Great Recession, as shown in the chart below. The current median, single-family home price of \$822,662 well exceeds the pre-recession price peak of \$747,260 from April 2007.



⁶ Data USA, <https://datausa.io/profile/geo/orange-county-ca/#economy/>

⁷ Chapman University, *Economic & Business Review*, June 2020, *Orange County Feels the Pain: But Its Economic Diversity Lessens It*; Table 11 *Orange County Variables, Annual History and Forecasts: 2015-2020*

Long-term Financial Planning

Since its formation in 1995, OCFA has been preparing multi-year projections of its revenues and expenditures. A firm of property tax consultants has been retained to assist in the projection of the OCFA's single largest revenue source – property taxes. With these projections and a collection of conservative assumptions, OCFA forecasts its financial condition five years into the future. Various scenarios can be developed from the forecast to assess the impact of proposed or impending changes to the budget, the economy or the underlying assumptions. As a result, this tool provides an early warning of potential financial difficulties. The consultant's method of projecting property tax revenue is to increase the value of existing structures by the 2% constitutional maximum (if CPI is 2% or greater); increase values to account for re-sales; add in the value of any new development; account for assessment appeals and reassessments in a recession; and account for value restoration post-recession.

Relevant Financial Policies

The OCFA Board of Directors has adopted the following formal budgetary and fiscal policies:

Financial Stability Budget Policy: This policy is intended to guide OCFA budget actions toward maintaining long-term financial stability and to establish fund balance levels and annual funding targets for the General Fund and Capital Improvement Program (CIP). The policy also includes guidance on facilitating the accelerated payment of OCFA's unfunded liabilities for improved fiscal health.

Fiscal Health Plan: The purpose of this plan is to establish a framework for ensuring an ongoing focus on fiscal health and a general process to ensure timely and appropriate response to adverse fiscal circumstances. The cornerstones of this plan are a set of strong fiscal policies and a comprehensive system for monitoring OCFA's fiscal performance. Financial indicators are monitored through frequent updates of OCFA's five-year financial forecast to evaluate stability, strength, or weaknesses of OCFA's finances.

Investment Policy: This policy is updated annually to reflect changes in legislation and the changing needs of the OCFA. It specifies the types of investments allowed in the OCFA portfolio, as well as the diversification and maturity requirements for investments.

Roles/Responsibilities/Authorities for the OCFA: This document identifies those roles and responsibilities that have been retained by the Board, as well as responsibilities that have been delegated. All authority rests with the Board unless it is delegated by statute or Board action. When delegated, these authorities are further defined by contracts, resolutions, policies and/or other Board actions.

Accounts Receivable Write-off Policy for Uncollectible Accounts: This policy establishes the criteria and procedures for requesting uncollectible amounts to be written off.

Short-term Debt Policy: This policy establishes guidelines for managing the OCFA's cash flow position in a fiscally conservative manner through the issuance of short-term debt.

Emergency Appropriations Policy: This policy establishes guidelines for increasing appropriations in the event of extraordinary fire or emergency activity following the last Board meeting of the fiscal year.

Assigned Fund Balance Policy: This policy establishes the authority by which OCFA may set aside cumulative resources in fund balance for an intended future use.

Grants Management Policy: This policy establishes an overall framework for guiding OCFA's use and management of grant resources.

Capital Projects Fund Policy: This policy defines the types of allowable activities that may be accounted for in OCFA's capital projects funds, as defined by Governmental Accounting Standard Board (GASB) Statement No. 54.

Major Initiatives Expected to Affect Future Financial Position

Highlights of select initiatives that have the potential to impact OCFA's future financial position are described below.

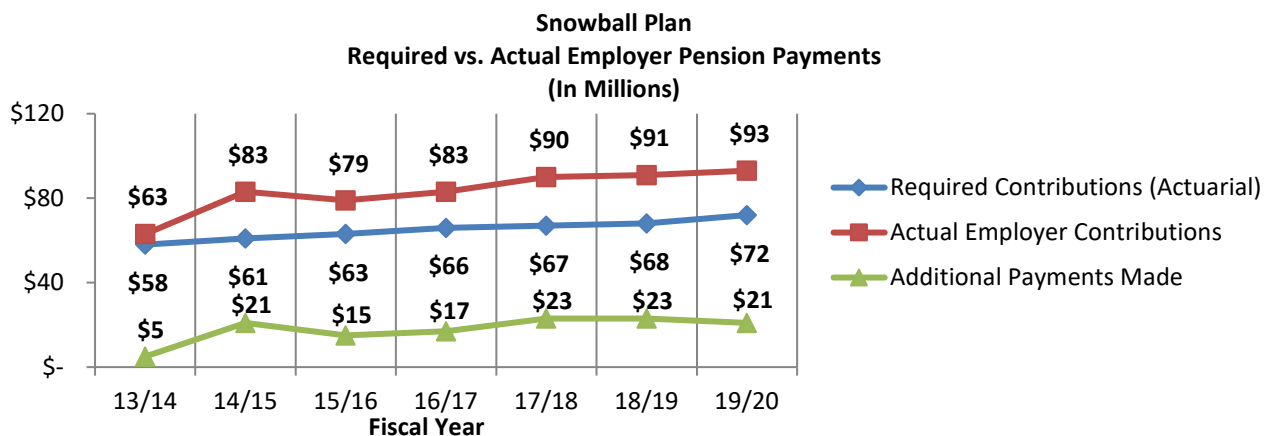
Accelerated Pay-Down of Pension Liability with the Orange County Employees Retirement System: OCFA continues its policy efforts and Board actions to reduce its unfunded liabilities, thereby improving the sustainability of services. In September 2013, the Board approved several strategies to accelerate funding OCFA's Unfunded Actuarial Accrued Liability (UAAL) with the Orange County

Employees Retirement System (OCERS). Those strategies, referred to as the “Snowball Plan,” currently include the following:

- (A) Use unencumbered fund balance available at the close of each fiscal year to make annual lump sum payments, estimated at an average amount of \$3 million annually;
- (B) Include savings from reduced retirement rates resulting from the implementation of the Public Employees’ Pension Reform Act;
- (C) Budget an additional \$1 million beginning in Fiscal Year 2016/17, and increase by \$2 million each subsequent fiscal year until reaching an annual amount of \$15 million;
- (D) Contribute \$1 million annually for five years, beginning in Fiscal Year 2016/17, from surplus fund balance available from the General Fund’s fund balance assignment for workers’ compensation; and
- (E) Contribute 50% of General Fund surplus, if any, annually beginning in Fiscal Year 2017/18 in accordance with the Financial Stability Budget Policy.
- (F) Contribute \$500,000 annually beginning in Fiscal Year 2020/21 until the liability is 85% funded in accordance with the Irvine Settlement Agreement.

In November 2016, the Board of Directors also authorized modifications of the “Snowball Plan” to (1) alter the funding target from 100% to 85%; and (2) to redirect expedited payments from the UAAL to the OCFA’s unfunded liability for the Retiree Medical Plan after achieving that 85% target. OCFA has been making additional payments toward its UAAL annually since Fiscal Year 2013/14, with additional payments made during Fiscal Year 2019/20 totaling \$21.0 million. The Board of Directors is updated annually on the status of the pay-down plan. As of November 2019, estimates received from the OCERS actuary indicated that these accelerated payments have saved OCFA \$24.6 million in interest, and that OCFA will achieve 85% funding by December 31, 2022, and 100% funding by December 31, 2028. Below is a summary of additional payments made toward the UAAL under the “Snowball Plan” since Fiscal Year 2013/14, followed by a comparison of required versus actual employer pension contributions made during that same time period.

	Part A	Part B	Part C	Part D	Part E			
Fiscal Year	Available Fund Balance	Annual PEPPRA Savings	Annual Budget Increases	Budget Increases from Workers Comp Assignment	50% of General Fund Surplus	Total Snowball Plan Payments	Other UAAL Rate Savings Payments	Total Additional Payments Toward the UAAL
2013/14	\$ 3,000,000	\$ 2,235,753	\$ -	\$ -	\$ -	\$ 5,235,753	\$ -	\$ 5,235,753
2014/15	21,290,238	86,061	-	-	-	21,376,299	-	21,376,299
2015/16	12,609,380	2,802,122	-	-	-	15,411,502	-	15,411,502
2016/17	9,814,477	1,653,114	1,000,000	1,000,000	-	13,467,591	3,128,369	16,595,960
2017/18	13,174,516	1,886,420	3,000,000	1,000,000	870,041	19,930,977	3,164,819	23,095,796
2018/19	10,000,000	3,167,397	5,000,000	1,000,000	-	19,167,397	3,665,549	22,832,946
2019/20	4,030,172	1,648,658	7,000,000	1,000,000	-	13,678,830	7,324,607	21,003,437
Total	\$73,918,783	\$13,479,525	\$16,000,000	\$4,000,000	\$870,041	\$108,268,349	\$17,283,344	\$125,551,693



Service Level Assessments: OCFA has been working with Citygate Associates, LLC, since January 2019 to conduct organizational Service Level Assessments (SLA's) in five key areas of the organization – field deployment, emergency medical services, emergency command center, fleet services, and executive leadership. The intent of each SLA is to accomplish the same objectives as a strategic plan but in smaller pieces, and to allow for progress to be made on objectives while other portions of the organization are still being assessed. These five SLA's are nearing completion and transitioning into the final report and briefing phase of the process. As the project moves into new areas of review, OCFA will continue to use the SLA findings to guide improvements throughout the organization.

Ongoing Response to COVID-19 Pandemic: This year's CAFR was prepared during a significant disruption to the global economy and healthcare system. In March 2020, the World Health Organization declared COVID-19 a global pandemic. This was followed by a state-wide "stay at home" order issued by California Governor Gavin Newsom. In response to that order, OCFA closed its Regional Fire Operations and Training Center (RFOTC) to the public and a portion of the professional staff began working remotely or with staggered office schedules. Fire stations also closed to visits from the public at that time; however, they continued to house suppression personnel responding to the 24/7 needs of the community. OCFA established a cross-functional "Incident Management Team" to coordinate internal communications and to acquire the resources needed to support OCFA's internal operations and its emergency response for Orange County's residents.

Beginning June 1, 2020, professional staff returned to working at the RFOTC facility. Due to the ongoing threat of the COVID-19 pandemic, OCFA continues its proactive measures to minimize the potential for exposure to OCFA's workforce. Decisions and actions taken are based on state and federal guidelines. Extended measures include, but are not limited to, facility closures to the general public (except for Community Risk Reduction customers at the RFOTC), employee health screenings, enhanced security services, extra facility cleaning, sanitation stations, and providing facemasks to employees. Even in these challenging times, OCFA is committed to providing exceptional emergency and support services with both courage and compassion.

Awards and Acknowledgments

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the OCFA for its Fiscal Year 2018/19 Comprehensive Annual Financial Report (CAFR), the twenty-second consecutive year OCFA has received this prestigious award. In order to be awarded this certificate, a government must publish an easily readable and efficiently organized CAFR that satisfies both GAAP and applicable legal requirements. The certificate is valid for a period of one year. We believe our Fiscal Year 2019/20 CAFR continues to meet the program's requirements, and we are submitting it to the GFOA to determine its eligibility for this year's award.

The timely preparation of the CAFR was made possible by the dedicated efforts of the staff of the Finance Division. We acknowledge the support and direction provided to OCFA staff by the accounting firm of Lance, Soll & Lunghard, LLP. We would also like to express our appreciation to the Board of Directors and Budget and Finance Committee for their leadership and support in planning and conducting the financial operations of the OCFA in a responsible and progressive manner.

Respectfully submitted,

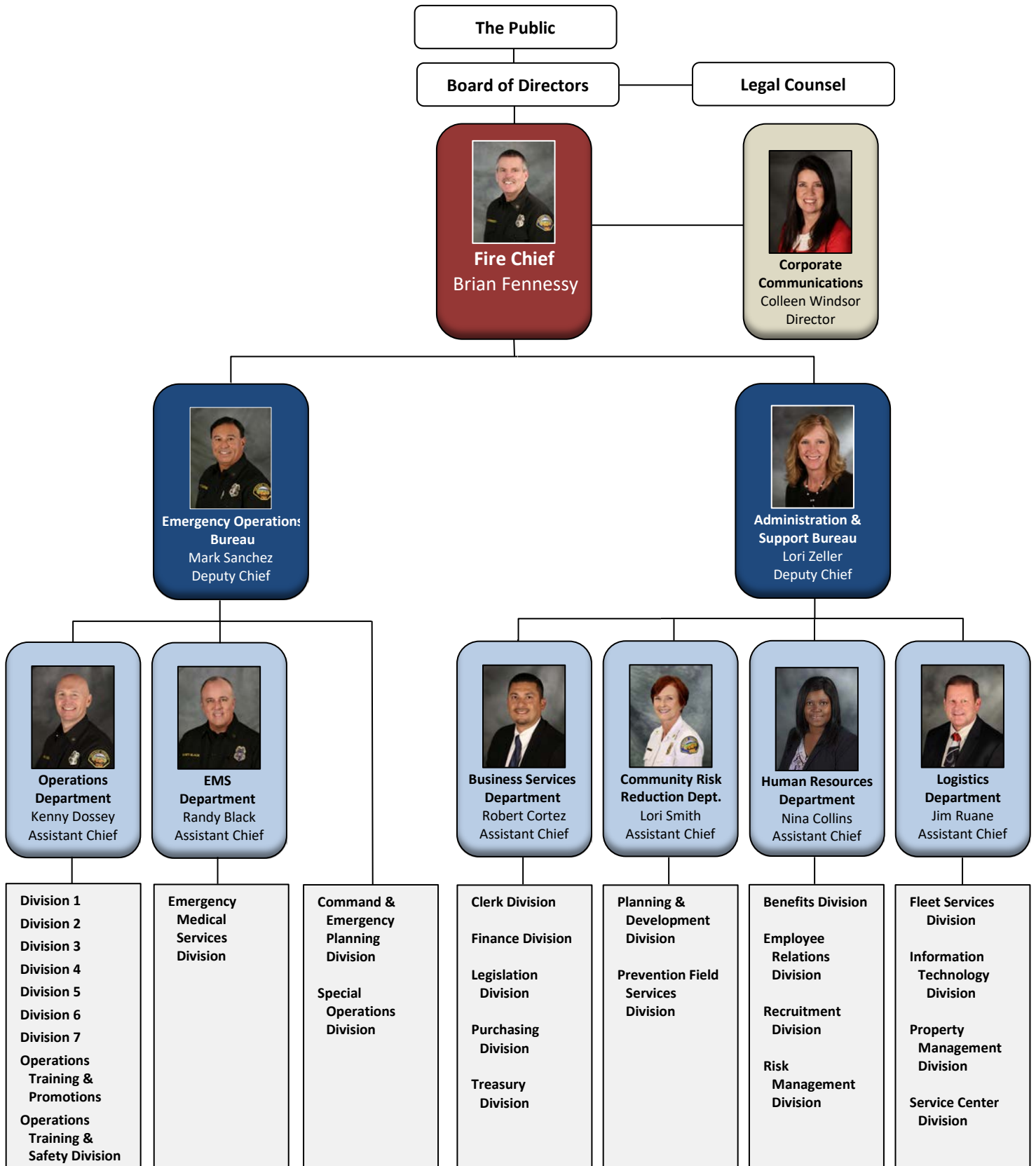


Brian Fennessy
Fire Chief



Robert Cortez
Assistant Chief, Business Services Department

ORANGE COUNTY FIRE AUTHORITY
Organization Chart
As of June 30, 2020



ORANGE COUNTY FIRE AUTHORITY
Management Staff and Appointed Officials
As of June 30, 2020

Executive Management

Fire Chief

Brian Fennessy

Deputy Chiefs

Mark Sanchez	Emergency Operations
Lori Zeller	Administration & Support

Assistant Chiefs

Kenny Dossey	Operations
Randy Black	EMS
Robert Cortez	Business Services
Lori Smith	Community Risk Reduction
Nina Collins	Human Resources
Jim Ruane	Logistics

Directors

Colleen Windsor	Corporate Communications
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Appointed Officials

Patricia Jakubiak	Treasurer
Julie Nemes	Auditor
Maria D. Huizar	Clerk of the Authority

Legal Counsel

Woodruff, Spradlin & Smart	General Counsel
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ORANGE COUNTY FIRE AUTHORITY
Organization of Board of Directors
As of June 30, 2020

The Orange County Fire Authority Board of Directors has twenty-five members as of June 30, 2020. Twenty-three of the members represent member cities and two members represent the county unincorporated area. The Board of Directors meets monthly. Following are descriptions of each committee that has been established by the Board of Directors:

The **Executive Committee** conducts all business of the OCFA, with the exception of policy issues, including labor relations, budget issues, and other matters specifically retained by the Board of Directors. The Executive Committee consists of no more than nine members of the Board of Directors. The committee membership is comprised of the following designated positions: the Chair and Vice Chair of the Board of Directors, the immediate past Chair of the Board, and the Chair of the Budget and Finance Committee. In addition, the Chair appoints five at-large members, subject to the approval of the Board of Directors. At least one member of the Board of Supervisors serves on this committee. In addition, the ratio of committee members representing cash contract cities to the total committee membership will be as close as reasonably possible to the ratio of the number of cash contract cities to total member agencies. The Chair of the City Managers Technical Advisory Committee serves as an ex officio non-voting member of the Executive Committee.

The **Budget and Finance Committee** advises staff and makes recommendations to the Board of Directors on matters related to financial and budget policies, development of budgets for the General Fund and capital expenditures, assignment of fund balances, budget balancing measures, evaluation and development of plans to meet long-term financing needs, investment oversight, and purchasing policies. The Chair of the Board makes appointments to the Committee on an annual or as-needed basis. The Chair of the City Manager Budget and Finance Committee serves as an ex officio non-voting member of this committee. The Budget and Finance Committee is also designated to serve as OCFA's audit oversight committee.

The **Human Resources Committee** advises OCFA staff and makes recommendations to the Board of Directors on matters regarding human resources policies; job class specifications; compensation programs; benefit changes and renewals; staff training, development and recognition programs; succession planning; risk management and workers' compensation policies; and development of management/performance evaluation and information systems. The committee consists of five members of the Board of Directors, all of which are appointed by the Chair of the Board.



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**Orange County Fire Authority
California**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morill

Executive Director/CEO

Financial Section



Academy 49 Graduation
November 23, 2019



INDEPENDENT AUDITORS' REPORT

To the Board of Directors
Orange County Fire Authority
Irvine, California

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the discretely presented component unit, each major fund, the aggregate remaining fund information, and the budgetary comparison for the general fund of Orange County Fire Authority, (the "Authority") as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the discretely presented component unit, each major fund, and the aggregate remaining fund information of the Orange County Fire Authority, as of June 30, 2020, and the respective changes in financial position and budgetary comparison for the general fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of proportionate share of the net pension liability, the schedules of plan contributions, the schedule of changes in the net pension liability and related ratios, the schedules of money weighted rate of return, and the schedule of changes in net other post-employment benefits liability and related ratios be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Prior Year Comparative Information

The financial statements include summarized prior-year comparative information. Such information does not include all of the information required or sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the government's financial statements for the year ended June 30, 2019, from which such partial information was derived.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Authority's basic financial statements. The introductory section, combining and individual fund financial statements and schedules, and the statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The combining and individual fund financial statements and schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the



To the Board of Directors
Orange County Fire Authority
Irvine, California

United States of America. In our opinion, the combining and individual fund financial statements and schedules are fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 8, 2020, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

Lance, Soll & Loughard, LLP

Brea, California
October 8, 2020



Orange County Fire Authority Safety Message

2-1-1 Helpline (Part 1 of 3)



2-1-1 is a nonprofit organization that provides information and referrals for thousands of services, including shelter, health care, and job placement.

Safety Tips

If you need help finding non-emergency services in your area, 2-1-1 Orange County is available 24 hours a day. 2-1-1 is fast, free, confidential, and available in more than 150 languages. In addition to calling 2-1-1, you can also visit their website at www.211oc.org.

2-1-1 Programs and Services

Specially trained 2-1-1 operators connect callers with more than 2,000 local government and nonprofit organizations. These agencies have programs dedicated to many personal and family needs, including:

- | | |
|------------------------------|-------------------------|
| ✓ Food | ✓ Prenatal Care |
| ✓ Affordable Housing | ✓ Child Development |
| ✓ Rent/Mortgage Assistance | ✓ After School Programs |
| ✓ Domestic Violence Shelters | ✓ Senior Services |

(Continued on Page 23)

Management's Discussion and Analysis



Air Operations Press Conferences
July 9 and September 23, 2019

ORANGE COUNTY FIRE AUTHORITY
Management's Discussion and Analysis
Year ended June 30, 2020

As management of the Orange County Fire Authority (OCFA), we offer readers of the financial statements this overview and analysis of OCFA's financial activities for the fiscal year ended June 30, 2020.

Financial Highlights

Governmental Activities: OCFA's liabilities and deferred inflows of resources exceeded assets and deferred outflows of resources by \$274,664,798 at June 30, 2020. Net position consisted of investment in capital assets totaling \$217,317,435; amounts restricted for capital and other projects totaling \$6,660,176; and an unrestricted deficit totaling \$498,642,409. Net position increased by \$23,405,516 as the result of current year operations.

Governmental Funds: OCFA's governmental fund balances totaled \$233,435,621 at June 30, 2020, an increase of \$19,228,854 over the prior fiscal year. Approximately 14.7% was available for funding future operational needs.

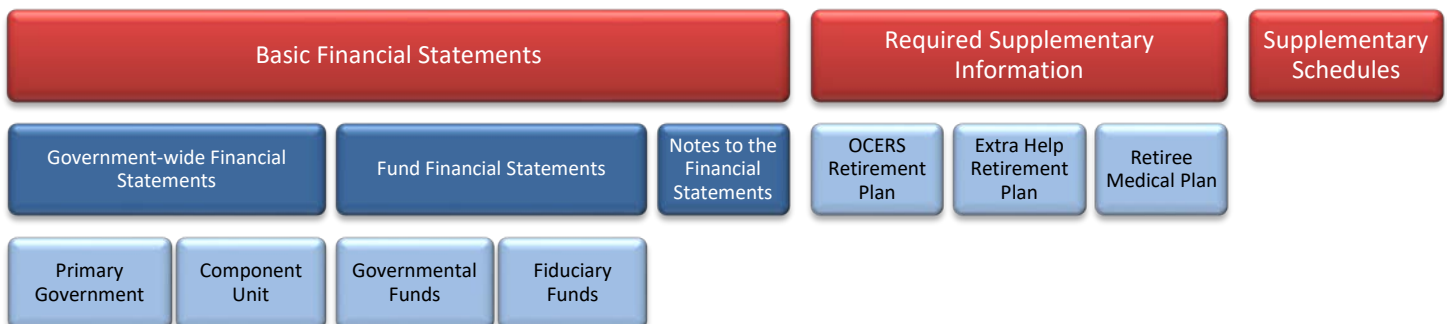
General Fund: Fund balance in the General Fund was categorized as follows at June 30, 2020:

➤ Nonspendable	\$ 42,700,572
➤ Restricted	6,268,699
➤ Committed	1,288,272
➤ Assigned	105,976,775
➤ Unassigned	<u>34,353,935</u>
Fund balance of the General Fund as of June 30, 2020	<u>\$190,588,253</u>

Events with Significant Financial Impact: On August 16, 2019, the City of Garden Grove became the newest member of OCFA and subject to all provisions, benefits, obligations, and liabilities set forth in the JPA Agreement. OCFA now provides all fire suppression, prevention, emergency medical, and related services within the city. The overall increase to OCFA's revenues and expenditures/expenses during Fiscal Year 2019/20 is attributed in large part to this transition of services and suppression employees from the City of Garden Grove.

Overview of the Financial Statements

This discussion and analysis serves as an introduction to OCFA's basic financial statements. The basic financial statements include: (1) government-wide financial statements, (2) fund financial statements, and (3) notes to the financial statements. In addition, the financial section of this report contains required supplementary information and supplementary schedules.



Government-wide Financial Statements: The government-wide financial statements provide a broad overview of OCFA's and the OCFA Foundation's finances in a manner like private-sector business. Public safety activities are reported as governmental activities, because they are principally supported by taxes and intergovernmental revenues. The government-wide financial statements can be found on pages 24-25.

Statement of Net Position: The statement of net position presents information on assets, deferred outflows of resources, liabilities, and deferred inflows of resources. The differences between these items are reported as “net position”. Over time, increases or decreases in net position serve as an indicator of whether the financial position is improving or deteriorating.

Statement of Activities: The statement of activities shows how net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows.

Fund Financial Statements: A fund is a grouping of related accounts used to maintain control over resources that have been segregated for specific activities. Like other state and local governments, OCFA uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. OCFA’s funds can be divided into two categories – governmental and fiduciary.

Governmental Funds: Governmental funds account for essentially the same functions as those reported in the government-wide financial statements as “governmental activities.” However, governmental fund financial statements focus on near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. This information is useful in evaluating a government’s near-term financing requirements. Because the focus of government funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of near-term financial decisions. Reconciliations are provided to facilitate this comparison for the governmental funds balance sheet and the governmental funds statement of revenues, expenditures and changes in fund balances.

OCFA reports four governmental funds. Information for each governmental fund is presented separately in the fund financial statements, because OCFA has elected to classify all governmental funds as major funds. OCFA adopts an annual appropriated budget for each governmental fund. Budgetary comparison statements or schedules are provided for the governmental funds to demonstrate compliance with this budget. The basic governmental fund financial statements can be found on pages 28-32.

Fiduciary Funds: Fiduciary funds account for resources held for the benefit of parties outside the government. Fiduciary funds are not reflected in the government-wide financial statements because the resources of those funds are not available to support OCFA’s own programs. Combined basic fiduciary fund financial statements can be found on pages 33-34.

Notes to the Financial Statements and Required Supplementary Information (RSI): The notes to the financial statements and RSI provide additional information that is essential to fully understanding the data provided in the government-wide and fund financial statements, including information about OCFA’s retirement and other postemployment benefit plans. RSI, while not a part of the basic financial statements, is considered to be an essential part of the financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. The notes to the financial statements can be found on pages 35-82 and RSI can be found on pages 83-95.

Supplementary Schedules: The budgetary schedules referred to earlier in connection with governmental funds are presented in the supplementary schedules section. Combining and individual fund schedules can be found on pages 97-109.

Government-wide Financial Analysis

Net Position: As noted earlier, the change in net position over time serves as a useful indicator of a government's financial position. In the case of OCFA, net position totaled a deficit of \$274,664,798 at the end of the most recent fiscal year, a 7.9% change from the prior fiscal year. Following is a summary of OCFA's net position as of June 30, 2020 and 2019:

ORANGE COUNTY FIRE AUTHORITY's Net Position				
<u>Governmental Activities</u>	<u>June 30, 2020</u>	<u>June 30, 2019</u>	<u>Increase (Decrease)</u> <u>Amount</u>	<u>%</u>
Assets:				
Current and other assets	\$ 231,040,916	\$ 216,331,420	\$14,709,496	6.8%
Restricted assets	2,121,417	-	2,121,417	n/a
Capital assets, net	217,317,435	218,642,679	(1,325,244)	-0.6%
Total assets	450,479,768	434,974,099	15,505,669	3.6%
Deferred outflows of resources:				
Related to pensions/OPEB	127,422,203	159,936,990	(32,514,787)	-20.4%
Total deferred outflows of resources	127,422,203	159,936,990	(32,514,787)	-20.4%
Liabilities:				
Long-term liabilities	722,904,449	790,687,641	(67,783,192)	-8.6%
Other liabilities	17,391,109	17,541,839	(150,730)	-0.9%
Total liabilities	740,295,558	808,229,480	(67,933,922)	-8.4%
Deferred inflows of resources:				
Related to pensions/OPEB	112,271,211	84,751,923	27,519,288	32.5%
Total deferred inflows of resources	112,271,211	84,751,923	27,519,288	32.5%
Net position:				
Investment in capital assets	217,317,435	218,642,679	(1,325,244)	-0.6%
Restricted for capital projects	391,477	403,489	(12,012)	-3.0%
Restricted for drought augmentation activities	956,880	1,950,806	(993,926)	-51.0%
Restricted for greenhouse gas reduction activities	1,354,680	677,340	677,340	100.0%
Restricted for Section 115 pension trust	2,120,383	-	2,120,383	n/a
Restricted for grants, donations, and other programs	1,836,756	1,246,669	590,087	47.4%
Unrestricted	(498,642,409)	(520,991,297)	22,348,888	4.3%
Total net position (deficit)	\$(274,664,798)	\$(298,070,314)	\$23,405,516	7.9%

Investment in Capital Assets: At June 30, 2020, the largest portion of OCFA's net position is its investment in capital assets. OCFA uses capital assets to provide services to citizens; consequently, these assets are not available for future spending. It should be noted that the repayment of any debt issued to acquire capital assets must be from other sources. OCFA cannot sell the assets to obtain funding.

Net Position Restricted for Capital Projects and Other Purposes: An additional portion of OCFA's net position includes resources that are subject to external restrictions on how they may be used. As of June 30, 2020, restricted net position relates to CALFIRE contract revenues that are legally restricted for fire station development or improvements; state funding restricted for drought augmentation and greenhouse gas reduction activities; amounts set aside in a Section 115 pension trust per contractual requirements; donations received for specific programs; and unperformed purchase orders for grant-funded programs.

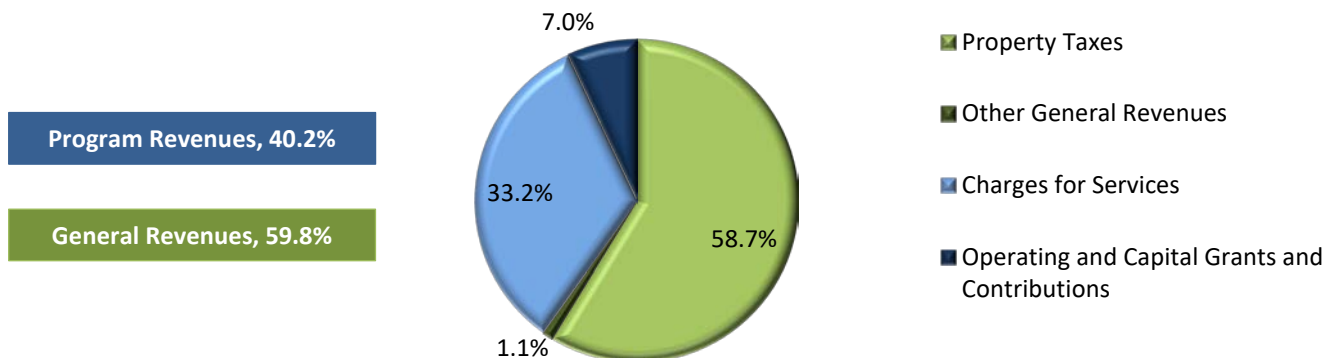
Unrestricted Net Position: The remaining balance of net position is considered unrestricted. A positive unrestricted balance would represent amounts that may be used to meet OCFA's ongoing obligations to citizens and creditors. A deficit unrestricted balance, as reported on June 30, 2020 and June 30, 2019, indicates that OCFA's obligations currently exceed its resources. This deficit is due to the implementation of Governmental Accounting Standards Board (GASB) Statements No. 68 and No. 75 during Fiscal Year 2014/15 and Fiscal Year 2017/18, respectively. These statements required OCFA to begin reporting its net pension liabilities and the full amount of its net other postemployment benefit liabilities (OPEB) on the Statement of Net Position.

Changes in Net Position: Net position of OCFA's governmental activities increased by \$23,405,416 during the most recent fiscal year, an indication that OCFA's financial position has improved. As previously noted, changes in financial reporting requirements under GASB Statements No. 68 and No. 75 are the reason why OCFA reports an overall deficit in its net position.

Governmental activities are divided into two categories – program and general. Program revenues are those derived directly from a government program itself, or from parties outside the government's taxpayers, and thus reduce the net cost of providing that program. Any program expenses that are not offset by program revenues must essentially be financed by general revenues, such as taxes and investment earnings. Following is a summary of the changes in OCFA's net position for Fiscal Year 2019/20 and Fiscal Year 2018/19, followed by explanations for the increases or decreases in revenues and expenses between fiscal years.

ORANGE COUNTY FIRE AUTHORITY's Changes in Net Position				
Governmental Activities	June 30, 2020	June 30, 2019	Increase (Decrease) Amount	%
Program revenues:				
Charges for services	\$ 156,740,363	\$ 128,320,646	\$28,419,717	22.1%
Operating grants and contributions	29,275,482	15,454,060	13,821,422	89.4%
Capital grants and contributions	3,850,481	454,200	3,396,281	747.8%
Total program revenues	189,866,326	144,228,906	45,637,420	31.6%
General revenues:				
Property taxes	277,721,815	264,267,387	13,454,428	5.1%
Investment income	3,302,632	4,236,800	(934,168)	-22.0%
Gain on disposal of capital assets	12,641	-	12,641	n/a
Miscellaneous	1,813,085	1,320,364	492,721	37.3%
Total general revenues	282,850,173	269,824,551	13,025,622	4.8%
Total revenues	472,716,499	414,053,457	58,663,042	14.2%
Public safety expenses:				
Salaries and benefits	352,573,221	339,249,853	13,323,368	3.9%
Services and supplies	84,600,263	62,877,930	21,722,333	34.5%
Depreciation and amortization	12,137,499	10,531,098	1,606,401	15.3%
Total public safety expenses	449,310,983	412,658,881	36,652,102	8.9%
Interest on long-term debt	-	11,444	(11,444)	-100.0%
Total expenses	449,310,983	412,670,325	36,640,658	8.9%
Change in net position	23,405,516	1,383,132	22,022,384	
Net position (deficit), beginning of year	(298,070,314)	(299,453,446)	1,383,132	
Net position (deficit), end of year	\$(274,664,798)	\$(298,070,314)	\$23,405,516	7.9%

Revenues of Governmental Activities - By Source
Fiscal Year 2019/20



Program Revenues: Program revenues, which totaled \$189,866,326 for Fiscal Year 2019/20 and accounted for 40.2% of total revenues, increased by \$45,637,420 over the prior fiscal year.

Charges for Services include amounts received from those who purchase, use, or directly benefit from or are affected by a program. These revenues increased by \$28,419,717 over the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
+\$27,080,000	Fire service contract revenues increased due to cash contract city charges per terms of the Joint Powers Agreement (+\$5,500,000) and the addition of the City of Garden Grove (+\$20,160,000); OCFA's contract with California Department of Forestry (CALFIRE) for protection of State Responsibility Area (SRA) lands (+\$1,220,000); and the Airport Rescue Firefighting (ARFF) Services contract with John Wayne Airport (+\$200,000). The City of Garden Grove joined as OCFA's newest member in August 2019 and was the most significant event contributing to OCFA's overall revenue increase in Fiscal Year 2019/20.
+\$4,245,000	In Fiscal Year 2019/20, OCFA recognized a public assistance reimbursement claim from the Federal Emergency Management Agency (FEMA) for costs incurred during the COVID-19 pandemic. It is anticipated that OCFA will receive reimbursement for approximately 75% of its eligible costs, which included personnel overtime (+\$3,575,000), materials and supplies (+\$2,080,000), and administration (+\$5,000).
-\$1,690,000	Reimbursements for state and federal incidents vary depending on fire and emergency response activity. Reimbursements from CALFIRE, the California Emergency Management Agency (CAL EMA), and the Cleveland National Forest decreased by \$175,000. There were several significant incidents in Fiscal Year 2019/20, including in-county pre-position, the Getty Fire, and the Saddleridge Fire in October 2019. However, overall activity was lower. OCFA responded to only sixty incidents in the current year as compared to eighty-seven in the prior year. Federal responses to national emergency incidents also decreased by \$1,515,000. Activity was higher in the prior year due to the Holy Fire in August 2018 and Hurricane Florence in September 2018.
-\$1,300,000	Fee-based fire prevention revenues for inspections, planning and development, and false alarm events decreased due to lower activity in Fiscal Year 2019/20. The number of inspections and construction plan reviews performed in the last four months of the fiscal year dropped due to the COVID-19 pandemic. In addition, there was a one-time project at John Wayne Airport in Fiscal Year 2018/19 that further attributed to the decline in planning and development fees by approximately \$130,000. False alarm instances are billed at increasingly higher rates for each occurrence. There was an overall decline in the number of customers billed in Fiscal Year 2019/20, including several who had incurred over ten occurrences each in the prior year.
+\$170,000	Revenues for ambulance transport and supplies reimbursement were higher in Fiscal Year 2019/20 primarily due to an increase in transport activity from the City of Garden Grove as a new OCFA member city.
-\$85,000	Road maintenance, fuel reduction, and other contract revenues generated by the hand crew decreased because less work was completed for Southern California Edison.
+\$28,420,000	Program Revenues: Charges for Services – Net Increase

Operating Grants and Contributions include grants, contributions, donations, and similar items that are restricted to one or more specific program. These revenues increased by \$13,821,422 over the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
+\$7,495,000	Federal and state operating grants increased due to new state funding for the Fire Integrated Real-Time Intelligence System (FIRIS) Pilot Program; a federal grant for additional firefighter positions; a supplemental federal grant to purchase COVID-19 personal protective equipment; and a new federal grant for fireground survival training.
+\$4,890,000	During Fiscal Year 2019/20, OCFA received a one-time \$4,890,000 donation from Southern California Edison to fund the 150-day Next Generation Aerial Operations Based Pilot Program.
+\$1,435,000	Tax increment passed through from members increased by \$1,435,000. The State of California dissolved its sixty-year-old redevelopment program in Fiscal Year 2011/12. City redevelopment agencies were replaced with successor agencies to manage the wind-down of the program. Property tax increment from this program was deposited into a Redevelopment Property Tax Trust Fund from which the County of Orange Auditor/Controller makes disbursements.
+\$13,820,000	Program Revenues: Operating Grants and Contributions – Net Increase

Capital Grants and Contributions include grants, contributions, donations, and similar items that are restricted to one or more specific capital-related programs. These revenues increased by \$3,396,281 over the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
+\$3,170,000	Capital assets contributed to OCFA increased by \$3,170,000 due to the acquisition of various fire apparatus, vehicles, and equipment from the City of Garden Grove.
+\$225,000	Revenues from developers increased per the terms of various Secured Fire Protection Agreements. Contributions varied between the prior and current year because of construction projects in the cities of Irvine and Lake Forest. The individual project having the greatest impact on developer revenue was the Portola Center in Lake Forest.
+\$3,395,000	Program Revenues: Capital Grants and Contributions – Net Increase

General Revenues: General revenues, which totaled \$282,850,173 for Fiscal Year 2019/20 and accounted for 59.8% of total revenues, increased by \$13,025,622 over the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
+\$13,455,000	Property taxes increased by \$13,455,000 over the prior year primarily due to increases in secured property taxes. Secured property taxes increased by 5.9%, which is consistent with a corresponding 6.0% increase in the assessed property values for jurisdictions within OCFA’s structural fire fund.
-\$930,000	Investment income decreased by \$930,000. OCFA’s year-to-date effective rate of return on its investment portfolio was 1.63% at June 30, 2020, as compared to 2.35% at June 30, 2019. This decline in the annual rate of return generated an \$870,000 decrease to overall portfolio earnings. However, OCFA adjusts its investments to market value as of June 30 each year. This resulted in an overall investment gain in Fiscal Year 2019/20 and generated a \$195,000 decrease in total investment income as compared to the prior fiscal year’s market value gain. The market value adjustment is a “paper only” transaction since OCFA typically holds its investments to maturity. These components of investment income, including interest earned from the County of Orange on property taxes and the Section 115 pension trust, are summarized below:
	</



Public Safety Expenses: Total public safety expenses increased by \$36,652,102 from the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease																
+\$25,905,000	Reasons for increases and decreases to the following categories of salaries and benefits are further explained in the Major Governmental Funds – General Fund portion of this Management’s Discussion and Analysis: regular pay, FICA, and Medicare (+\$16,240,000); employee health insurance and other benefits (+\$4,410,000); overtime costs (+\$3,850,000); other pay (+\$2,070,000); vacation and sick leave payouts (-\$515,000); and temporary “extra help” salaries (-\$150,000).																
-\$16,485,000	Retirement contributions remitted to the Orange County Employees Retirement System (OCERS) increased by \$2,175,000. Reasons for the increase in actual plan contributions are further explained in the Major Governmental Funds – General Fund portion of this Management’s Discussion and Analysis. In addition, under the requirements of GASB Statement No. 68, the amount of pension expense recognized during Fiscal Year 2019/20 to fully capture OCFA’s share of the net pension liability in its governmental activities was \$18,660,000 less than the prior year.																
+\$2,560,000	Under the requirements of GASB Statement No. 75, the amount of OPEB expense recognized during Fiscal Year 2019/20 in order to fully capture OCFA’s net OPEB liability in its governmental activities was \$2,560,000 more than the prior year.																
+\$1,345,000	The net change in long-term liabilities for various employee leave balances increased by \$1,345,000 as compared to the prior year and is recognized as an expense (credit) in the governmental activities.																
+\$13,325,000	Subtotal for Public Safety Salaries and Benefits – Net Increase																
+\$17,070,000	Reasons for increases and decreases to the following categories of services and supplies are further explained in the Major Governmental Funds – General Fund portion of this Management’s Discussion and Analysis: professional services other than workers’ compensation (+\$9,690,000); the COVID-19 pandemic (+\$2,805,000); special department expenses (+\$1,370,000); clothing and personal supplies (+\$620,000); facility maintenance (+500,000); office expenses (+\$440,000); equipment and vehicle maintenance (+\$405,000); medical and pharmaceuticals (+\$245,000); insurance (+\$240,000); communications (+\$220,000); City of Garden Grove start-up costs (+\$165,000); travel, training, and meetings (-\$135,000); utilities (+\$125,000); and various other services and supplies (+\$380,000).																
+\$4,420,000	OCFA’s long-term liability for workers’ compensation reflects the present value of estimated outstanding losses, as determined by an actuarial valuation and the “confidence level” set by the Board of Directors. The change in the actuarial liability estimate, plus actual cash claims paid, is recognized as an expense. <table><tr><td></td><td>FY 2019/20</td><td>FY 2018/19</td><td>Increase (Decrease)</td></tr><tr><td>Actual claims paid</td><td>\$12,340,000</td><td>\$11,960,000</td><td>\$ 380,000</td></tr><tr><td>Change in actuarial estimate</td><td>17,320,000</td><td>13,280,000</td><td>4,040,000</td></tr><tr><td>Total fiscal year expense</td><td>\$29,660,000</td><td>\$25,240,000</td><td>\$4,420,000</td></tr></table>		FY 2019/20	FY 2018/19	Increase (Decrease)	Actual claims paid	\$12,340,000	\$11,960,000	\$ 380,000	Change in actuarial estimate	17,320,000	13,280,000	4,040,000	Total fiscal year expense	\$29,660,000	\$25,240,000	\$4,420,000
	FY 2019/20	FY 2018/19	Increase (Decrease)														
Actual claims paid	\$12,340,000	\$11,960,000	\$ 380,000														
Change in actuarial estimate	17,320,000	13,280,000	4,040,000														
Total fiscal year expense	\$29,660,000	\$25,240,000	\$4,420,000														
+\$330,000	Services and supplies relating to capital improvement projects vary each year based on the timing of one-time projects. The most significant Fiscal Year 2019/20 project was the site stabilization project at Fire Station No. 42 (Portola Hills), which incurred various non-capitalized engineering and construction expenses.																
-\$100,000	There was a \$100,000 loss on disposal of capital assets during Fiscal Year 2018/19. Various equipment items were sold or traded in at amounts less than their net book value, including extrication tools and a cardiac monitor. In addition, OCFA’s modular building that was used as a temporary site for Fire Station No. 61 (Buena Park) was donated to the Centralia School District after the new permanent fire station was placed into service. That modular building had a net book value of \$35,000 and was the single largest component of the prior year’s overall loss. Capital assets disposed during Fiscal Year 2019/20 were reported at an overall net gain, which is reported as a general revenue in the governmental activities.																
+\$21,720,000	Subtotal for Public Safety Services and Supplies – Net Increase																
+\$1,605,000	Public Safety Depreciation and Amortization Expense , which had no impact on OCFA’s cash balances, increased by \$1,605,000, and pertained primarily to depreciation on vehicles. Fiscal Year 2019/20 was the first full year of depreciation expense on six 100’ tractor drawn aerials and ten type one engines that were placed into service during the prior year.																
+\$36,650,000	Total Public Safety Expenses – Net Increase																

OCFA Foundation: OCFA reports the financial activities of the OCFA Foundation as a discretely presented component unit in its government-wide financial statements. The OCFA Foundation also issues separate, component-unit financial statements that may be obtained through written request from the OCFA Finance Division at 1 Fire Authority Road, Irvine, California, 92602. The net position of the OCFA Foundation totaled \$173,990 at June 30, 2020, a 20.8% increase over the prior year. Following is a summary of the OCFA Foundation's net position as of and for the changes thereof for the fiscal years ending June 30, 2020 and 2019:

OCFA FOUNDATION's Condensed Financial Activity					
Component Unit	June 30, 2020	June 30, 2019	Increase (Decrease)		
			Amount	%	
Assets:					
Current and other assets	\$160,475	\$139,209	\$21,266	15.3%	
Capital assets, net	13,515	14,314	(799)	-5.6%	
Total assets	173,990	153,523	20,467	13.4%	
Liabilities:					
Other liabilities	-	9,399	(9,399)	-100.0%	
Total liabilities	-	9,399	(9,399)	-100.0%	
Net position:					
Investment in capital assets	13,515	14,314	(799)	-5.6%	
Restricted for grants, donations, and other programs	39,490	33,525	5,965	17.8%	
Unrestricted	120,985	96,285	24,700	25.7%	
Total net position	\$173,990	\$144,124	\$29,866	20.8%	
Program revenues:					
Operating grants and contributions	\$130,382	\$ 57,203	\$73,179	128.0%	
Total revenues	130,382	57,203	73,179	128.0%	
Public safety expenses:					
Services and supplies	99,717	51,503	48,214	93.6%	
Depreciation and amortization	799	799	-	n/a	
Total expenses	100,516	52,302	48,214	92.2%	
Change in net position	29,866	4,901	24,965		
Net position, beginning of year	144,124	139,223	4,901		
Net position, end of year	\$173,990	\$144,124	\$29,866	20.8%	

Net Position: At June 30, 2020, a portion of OCFA Foundation's net position reflects its investment in capital assets, which are used to provide services to citizens and are not available for future spending. An additional portion of net position represents resources that are subject to external donor-imposed restrictions that will be met through the actions of the Foundation or the passage of time. As of June 30, 2020, restricted net position related to unspent amounts received for programs, including the Smoke Alarm Outreach Program, Drowning Prevention, the Fire Exploring Academy, the September 11th Memorial Project, Girls Empowerment Camp, and the Best & Bravest Awards Event. The remaining balance and largest portion of the OCFA Foundation's net position is considered unrestricted and may be used to meet the ongoing obligations to citizens and creditors.

Changes in Net Position: During Fiscal Year 2019/20, operating grants and contributions included \$40,785 in general contributions and \$89,597 in donations and other revenues restricted for various OCFA Foundation programs. Services and supplies expenses included \$3,569 in administrative costs, with the balance relating to various OCFA Foundation programs.

Financial Analysis of OCFA's Governmental Funds

Governmental Funds: OCFA uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. The focus of OCFA's governmental funds is on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the OCFA's financing requirements. Fund balance is divided into the following five categories:

- **Nonspendable:** Not in a spendable form, or legally or contractually required to remain intact
- **Restricted:** Subject to externally enforceable legal restrictions
- **Committed:** Use is constrained by specific limitations that the Board of Directors imposes upon itself by a formal action
- **Assigned:** Intended to be used by the government for specific purposes, subject to change, as established by the governing body itself or by management officials who have been delegated authority by the governing body

- **Unassigned:** Residual amounts in the General Fund available for any purpose (may serve as a useful measure of a government's net resources available for funding future operational needs)

At the end of Fiscal Year 2019/20, OCFA's governmental funds reported combined ending fund balances of \$233,435,621, an increase of \$19,228,854 in comparison with the prior year. Approximately 14.7% constitutes unassigned fund balance, which is available for spending for any purpose. The remaining 85.3% of fund balance is not available for spending on any new purpose, because it has already been restricted, committed, or assigned for specific purposes, or it is in a nonspendable form.

Major Governmental Funds: If the assets, liabilities, revenues, or expenditures of a governmental fund exceed 10% of the total of all governmental funds, that fund is reported as a major governmental fund in the fund financial statements. OCFA has elected to classify all four of its governmental funds as major, regardless of the calculation. Following is a description of the changes in each fund's revenues, expenditures, and transfers from the prior to the current fiscal year, and how those changes impacted net fund balance.

Increases to revenues and transfers in impact fund balance positively, while increases to expenditures and transfers out impact fund balance negatively.



The **General Fund** is the chief operating fund of OCFA. At the end of Fiscal Year 2019/20, the General Fund's fund balance totaled \$190,588,253. Unassigned fund balance totaling \$34,353,935 (18.0%) is available for future spending. The remaining \$156,234,318 (82.0%) is not available for spending on any new purpose, because it has already been restricted, committed or assigned for specific purposes, or is in a nonspendable form. Total fund balance of OCFA's General Fund increased by \$21,863,627 during the current fiscal year. The prior fiscal year's fund balance increased by \$10,623,336, a difference of \$11,240,291. The significant reason(s) for that net difference are identified in the following table.

Impact on Fund Balance (Rounded)	Description
+\$24,620,000	Charges for Services. The most significant increase in charges for services was over \$25.6 million for operating and facilities charges to cash contract cities per terms of the Joint Powers Agreement and the addition of the City of Garden Grove as a member in August 2019. Other increases included the Airport Rescue Firefighting (ARFF) Services contract with John Wayne Airport, and private ambulance transport and supplies reimbursements. The most significant decrease in charges for services was \$955,000 for inspection fees. The number of inspections and construction plan reviews performed in the last four months of Fiscal Year 2019/20 dropped due to the COVID-19 pandemic. Revenue also decreased for false alarm fees, other planning and development fees, and contract work generated by the hand crew.
+\$13,455,000	Taxes. Revenue from property taxes increased primarily due to secured property taxes, which were 5.9% higher than the prior year. The increase in secured property taxes is related to a rise in assessed property values for jurisdictions within OCFA's structural fire fund.
+\$12,735,000	Intergovernmental. The increase in intergovernmental revenue related to \$5.0 million in federal grant and public assistance funding for the COVID-19 pandemic; \$3.9 million in new state funding received for the Fire Integrated Real-Time Intelligence System (FIRIS) Pilot Program; \$2.9 million in other state and federal grants; \$1.4 million in tax increment passed through from member cities and the County of Orange; and \$1.2 million in contract revenues and augmentation funds for the protection of the State Responsibility Area. These increases were offset by a \$1.7 million decline in state and federal "assistance by hire" revenues for emergency response activity and federal reimbursements relating to hurricanes and other disasters. These types of emergency response activities were significantly higher in Fiscal Year 2018/19 as compared to the current year
+\$4,825,000	Miscellaneous. The increase in miscellaneous revenue is related to a one-time \$4.9 million donation from Southern California Edison to fund the 150-day Next Generation Aerial Operations Based Pilot Program. This was partially offset by a decline in rental revenue generated by leased hangar spaces at Fire Station No. 41 (Fullerton Airport). All tenant hangar leases were terminated and not renewed during Fiscal Year 2019/20.
-\$465,000	Use of Money and Property. The portion of investment portfolio earnings and a net market value gain allocated to the fund decreased (-\$600,000) but was partially offset by interest earnings related to property taxes (+\$95,000). In addition, OCFA's new Section 115 pension trust generated +\$40,000 in interest earnings during Fiscal Year 2019/20.
+\$55,170,000	Subtotal – Impact of Revenues

(Continued)

(Continued)

Impact on Fund Balance (Rounded)	Description																
-\$16,240,000	<p>Regular Pay. Regular pay and related costs such as FICA and Medicare increased by \$16.2 million in Fiscal Year 2019/20.</p> <ul style="list-style-type: none"> ➤ There were three firefighter academies held in Fiscal Year 2019/20, as compared to only one in the prior year. In addition, the City of Garden Grove joined OCFA as a member in August 2019. These personnel changes resulted in a net addition of approximately 140 new OCFA employees. ➤ Scheduled pay increases went into effect per negotiated labor contracts, including chief officers (2.16% effective July 2019), general and supervisory units (2.00% effective August 2019), administrative managers (2.00% effective August 2019), and firefighters (1.25% effective September 2019). ➤ In response to the COVID-19 pandemic, sick leave claimed by employees for a portion of Fiscal Year 2019/20 was not deducted from their leave banks and was converted to “leave with pay.” This conversion process produced \$1.9 million in paid employee leave during a ten-week period in late Fiscal Year 2019/20. ➤ There was a \$1.6 million increase in the net year-end estimate for accrued but unpaid payroll costs. The year-end estimates vary each year depending on the timing of the bi-weekly pay period calendar. 																
-\$4,410,000	<p>Health Insurance. Employee health insurance and other benefits increased primarily due to firefighter health insurance premiums. OCFA contributes toward the cost of firefighter health insurance premiums at a contractual rate per month, per employee. In addition to an increase in the number of firefighters from Garden Grove, the monthly rate increased from \$1,995 to \$2,095 per month in January 2020.</p>																
-\$3,850,000	<p>Overtime. Overtime costs increased by over \$3.8 million, including overtime for emergencies and backfill for suppression personnel utilizing leave balances or on workers’ compensation. There were more in-county emergency events generating overtime in Fiscal Year 2019/20, most notably the upstaffing of strike teams and support staff during the October 2019 wind events and the activation of an OCFA Incident Management Team to oversee the COVID-19 pandemic in Spring 2020. These increases were offset by declines in overtime response for out-of-county emergencies. There were fewer out-of-county incidents to which OCFA provided state “assistance by hire” in Fiscal Year 2019/20 as compared to the prior year.</p>																
-\$2,175,000	<p>Retirement. One-time employer pension contributions decreased by \$1.8 million in accordance with OCFA’s “snowball” plan to expedite the paydown of its net unfunded pension liability. Actuarially required pension contributions based on employee compensation, net of savings achieved by pre-paying a portion of the subsequent fiscal year’s contribution to OCERS, increased by \$4.0 million. That increase is due in part to corresponding increases in employee compensation.</p>																
-\$2,070,000	<p>Other Pay. Other pay – which includes pay to employees on workers’ compensation, educational incentives, paramedic/EMT bonuses, bilingual pay, and other specialty pay – increased or decreased as follows:</p> <table> <tr> <td>➤ Paramedic specialty pay</td><td style="text-align: right;">+\$785,000</td></tr> <tr> <td>➤ Special assignment pay for other safety specialties</td><td style="text-align: right;">+\$540,000</td></tr> <tr> <td>➤ Emergency medical technician (EMT) pay</td><td style="text-align: right;">+\$455,000</td></tr> <tr> <td>Subtotal – increase in specialty pay for safety employees</td><td style="text-align: right;">+\$1,780,000</td></tr> <tr> <td>➤ Education incentives</td><td style="text-align: right;">+\$675,000</td></tr> <tr> <td>➤ Workers’ compensation pay</td><td style="text-align: right;">-\$575,000</td></tr> <tr> <td>➤ Other miscellaneous taxable and nontaxable pay</td><td style="text-align: right;">+\$190,000</td></tr> <tr> <td>Total – net increase in expenditures</td><td style="text-align: right;"><u>+\$2,070,000</u></td></tr> </table> <p>Specialty pay for safety employees was the most significant contributor to the overall increase. These amounts are typically calculated as a percentage of regular pay, which increased during Fiscal Year 2019/20 due to an increase in the number of safety employees and scheduled pay increases for chief officers and firefighters.</p>	➤ Paramedic specialty pay	+\$785,000	➤ Special assignment pay for other safety specialties	+\$540,000	➤ Emergency medical technician (EMT) pay	+\$455,000	Subtotal – increase in specialty pay for safety employees	+\$1,780,000	➤ Education incentives	+\$675,000	➤ Workers’ compensation pay	-\$575,000	➤ Other miscellaneous taxable and nontaxable pay	+\$190,000	Total – net increase in expenditures	<u>+\$2,070,000</u>
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➤ Other miscellaneous taxable and nontaxable pay	+\$190,000																
Total – net increase in expenditures	<u>+\$2,070,000</u>																
+\$515,000	<p>Vacation and Sick Leave Payouts. Vacation and sick leave payouts decreased primarily due to the retirement of an individual, long-term employee with significant balances during Fiscal Year 2018/19.</p>																

(Continued)

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Impact on Fund Balance (Rounded)	Description
+\$150,000	Extra Help. Salary costs for temporary, “extra help” employees vary each year as projects and short-term vacancies arise. The net decrease was primarily due to an employee hired in the prior year to oversee the development of the City of Garden Grove fire service proposal, as well as an overall decrease in reserve firefighter stipend payments.
-\$28,080,000	Subtotal – Impact of Salaries and Benefits
-\$10,070,000	<p>Professional Services. The most significant increase in professional services pertained to the Next Generation Aerial Operations Based Pilot Program, a 150-day program to enhance regional wildfire aerial response. Professional service costs included the operation of two helicopters by Coulson Aviation (USA), Inc. and various Air Tactical Group Supervisors. Another significant increase was the Fire Integrated Real-Time Intelligence System (FIRIS) Pilot Program, a program designed to enhance regional wildfire situational awareness for first responders. Professional service costs included operation of fixed wing aircraft by Courtney Aviation, Air Tactical Group Supervisors, and fire modeling and mapping services. Below is a summary of these and other net increases and decreases in Fiscal Year 2019/20 professional service expenditures:</p> <ul style="list-style-type: none"> ➤ Next Generation Aerial Operations Based Pilot Program +\$5,290,000 ➤ Fire Integrated Real-Time Intelligence System (FIRIS) Pilot Program +\$3,940,000 ➤ Workers’ compensation claims paid +\$380,000 ➤ Contracted information technology personnel -\$340,000 ➤ Station “First-In Alerting System” upgrades and other professional support +\$210,000 ➤ Design and project management for RFOTC fiber optic network project +\$140,000 ➤ Lexipol online fire policy manual and integrated daily training bulletin services -\$140,000 ➤ Internal investigations +\$135,000 ➤ Legal fees +\$110,000 ➤ Other professional services +\$345,000 Total – net increase in professional service expenditures <u>+\$10,070,000</u>
-\$2,805,000	<p>COVID-19 Pandemic. OCFA purchased services and supplies totaling over \$2.8 million in response to the global COVID-19 pandemic, including:</p> <ul style="list-style-type: none"> ➤ Employee personal protective equipment (PPE) such as masks, gowns, hand sanitizer, filters, goggles, and gloves +\$1,515,000 ➤ Patient medical supplies and inhalers +\$290,000 ➤ Laptops for telecommuting, office supplies, and printing +\$265,000 ➤ Food and meals for the Incident Management Team (IMT) +\$245,000 ➤ Additional RFOTC security and facility decontamination services +\$165,000 ➤ Enhanced RFOTC janitorial services, HVAC modifications, partition screens, health screening and security sheds, and other facility maintenance +\$130,000 ➤ Various specialty items, such as board room audio visual upgrades, fit test machines and supplies, employee lodging, and storage racks to house additional supplies +\$90,000 ➤ Various rentals, including scissor lifts and banquet rooms for the fire captain academy and strategic planning team +\$75,000 ➤ Household items such as disinfecting wipes, an air purifying machine, and air filters +\$20,000 ➤ Hazardous materials truck rental +\$10,000 Total Fiscal Year 2019/20 COVID-19 services and supplies <u>+\$2,805,000</u>
-\$1,370,000	Special Department Expenditures. Increases in special department expenditures pertained primarily to payments made to the City of Irvine totaling \$618,000 per terms of the Settlement Agreement. Other increases included lumber used in firefighter academy training, and replenishment of various Service Center supplies such as self-contained breathing apparatus carbon air cylinders, valve assemblies, and air bottles.
-\$620,000	Clothing and Personal Supplies. Clothing and personal supply costs increased primarily due to the purchase of more firefighter turnouts as compared to the prior year. Firefighters are issued two sets of turnouts to improve cancer safety. Purchases are made to replenish turnout stock, as needed, due to routine wear and tear.

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(Continued)

Impact on Fund Balance (Rounded)	Description
-\$500,000	Facility Maintenance. Increases in facility maintenance related primarily to the addition of seven new stations in the City of Garden Grove beginning in August 2019, including various repairs to the HVAC systems, doors, and gates. In addition, there was an overall increase in plumbing maintenance in Fiscal Year 2019/20, mostly due to work completed at Fire Station No. 18 (Trabuco).
-\$440,000	Office Expenditures. Office supply expenditures increased in Fiscal Year 2019/20, including various costs for phone, alarm, and network systems at OCFA's fire stations.
-\$405,000	Equipment and Vehicle Maintenance. Vehicle maintenance was higher in Fiscal Year 2019/20 due to general vehicle parts, tires, and repairs.
-\$245,000	Medical and Pharmaceuticals. More medical and pharmaceutical supplies were purchased in Fiscal Year 2019/20, including AED supplies, diagnostic kits, needles, airway bags, and various items needed to operate the new automatic chest compression devices acquired in September 2019. Additionally, in Fiscal Year 2019/20 OCFA purchased forty AED Plus units as compared to only ten in the prior year.
-\$240,000	Insurance. Fiscal Year 2019/20 insurance premiums increased for excess workers' compensation, aviation, and general liability. More out-of-pocket deductibles and payments were made for vehicle and property damage.
-\$220,000	Communications. The increase in communications charges related to monthly services with Verizon and AT&T for cell phone broadband services, fax, phone, alarm, 911 boxes, and data circuits.
-\$165,000	Garden Grove Start-Up Costs. OCFA incurred \$655,000 of reimbursable services and supplies costs relating to the transition of fire and emergency medical services from the City of Garden Grove in Fiscal Year 2019/20, as compared to \$490,000 in the prior year.
+\$135,000	Travel, Training, and Meetings. Out-of-county employee travel for training and meetings decreased by \$245,000 in Fiscal Year 2019/20. Travel from March through June 2020 was restricted due to the COVID-19 pandemic. Incident-related also decreased by \$50,000, as there was less "assistance by hire" activity in Fiscal Year 2019/20 as compared to the prior year. However, the cost of in-county training did increase by \$160,000 due to a new federal grant for fireground survival training. Two "train-the-trainer" courses were completed in Fiscal Year 2019/20.
-\$125,000	Utilities. Utility costs increased during Fiscal Year 2019/20, primarily due to the addition of seven new stations in the City of Garden Grove beginning in August 2019.
-\$380,000	Other Services and Supplies. Other services and supply costs increased in Fiscal Year 2019/20 relating to small tools and instruments (+\$100,000), equipment rent (+\$100,000), food (+\$70,000), household items (+\$65,000), and transportation (+\$45,000).
-\$17,450,000	Subtotal – Impact of Services and Supplies
+\$125,000	Garden Grove Start-Up Costs. Fiscal Year 2018/19 capital outlay included the purchase of four cardiac monitors as part of the transition of fire and emergency medical services from the City of Garden Grove.
-\$1,340,000	Other Capital Outlay. Capital outlay varies each year based on organizational needs for new and replacement equipment. The most significant equipment purchase in Fiscal Year 2018/19 was for forty-five 800 MHz portable radios (-\$265,000). The most significant equipment purchase in Fiscal Year 2019/20 was for ninety-five automatic chest compression devices (+\$1.4 million).
-\$1,215,000	Subtotal – Impact of Capital Outlay
-\$46,745,000	Subtotal – Impact of Expenditures
+\$2,150,000	Interfund Transfers. Transfers made from the General Fund to the capital projects funds for projects in the Capital Improvement Program totaled \$2,150,000 in Fiscal Year 2018/19. No transfers out were made in the current year.
+\$545,000	Insurance Recoveries. Insurance recoveries increased in Fiscal Year 2019/20 due to proceeds from OCFA's excess workers' compensation policy for a long-term case, as well as various recoveries received for vehicle accidents.
+\$120,000	Sale of Capital Assets. There was an increase in the proceeds from sale of capital assets, because more vehicles and miscellaneous equipment were sold in Fiscal Year 2019/20 as compared to the prior year.
+\$2,815,000	Subtotal – Impact of Other Financing Sources and Uses
+\$11,240,000	General Fund – Net Impact on Fund Balance



The **Communications and Information Systems Fund** had total fund balance of \$6,228,913 at the end of Fiscal Year 2019/20. Fund balance was assigned to the Capital Improvement Program (\$6,121,588) and communications and information technologies projects (\$103,078). The remaining \$4,247 is not available for spending on any new purpose, because it is in a nonspendable form. Total fund balance decreased by \$1,678,800 during the current fiscal year. The prior fiscal year's fund balance decreased by \$3,158,490, a difference of \$1,479,690. The significant reason(s) for that net difference are identified in the following table.

Impact on Fund Balance (Rounded)	Description												
+\$1,745,000	<p>Dispatch Consoles. Expenditures for services and supplies and capital outlay decreased due to a multi-year 800 MHz Countywide-Coordinated Communications (CCCS) System capital improvement project. The CCCS System is administered by the Orange County Sheriff's Department. The upgrade and replacement of the original system was implemented in phases beginning in Fiscal Year 2016/17. Participating agencies were responsible for purchasing their own radios and dispatch consoles that are compatible with the new system. OCFA's costs decreased in Fiscal Year 2019/20, because most of the work to upgrade its dispatch consoles was completed during the prior year (-\$1,745,000). The project was finalized in June 2020 at a four-year cost just over \$10.5 million.</p> <table> <tr> <th>Type of Costs Incurred</th><th>Amount</th></tr> <tr> <td>➤ Fiscal Year 2016/17: Purchase over 1,500 encrypted portable, mobile, and base station 800 MHz radios, along with accessories such as chargers, batteries, and speaker microphones</td><td>\$ 6,715,000</td></tr> <tr> <td>➤ Fiscal Year 2017/18: Third-party vendors configure, install, and deploy 800 MHz radios</td><td>530,000</td></tr> <tr> <td>➤ Fiscal Year 2018/19: Begin upgrade of dispatch consoles</td><td>2,520,000</td></tr> <tr> <td>➤ Fiscal Year 2019/20: Complete upgrade of dispatch consoles</td><td>775,000</td></tr> <tr> <td>Cumulative CCCS System project costs</td><td><u>\$10,540,000</u></td></tr> </table>	Type of Costs Incurred	Amount	➤ Fiscal Year 2016/17: Purchase over 1,500 encrypted portable, mobile, and base station 800 MHz radios, along with accessories such as chargers, batteries, and speaker microphones	\$ 6,715,000	➤ Fiscal Year 2017/18: Third-party vendors configure, install, and deploy 800 MHz radios	530,000	➤ Fiscal Year 2018/19: Begin upgrade of dispatch consoles	2,520,000	➤ Fiscal Year 2019/20: Complete upgrade of dispatch consoles	775,000	Cumulative CCCS System project costs	<u>\$10,540,000</u>
Type of Costs Incurred	Amount												
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➤ Fiscal Year 2019/20: Complete upgrade of dispatch consoles	775,000												
Cumulative CCCS System project costs	<u>\$10,540,000</u>												
-\$150,000	Interfund Transfers. Transfers in from the General Fund for projects in the Capital Improvement Program totaled \$150,000 in Fiscal Year 2018/19. No amounts were transferred in the current year.												
-\$115,000	Use of Money and Property. The portion of investment portfolio earnings and a net market value gain allocated to the fund decreased.												
+\$1,480,000	Communications and Information Systems Fund – Net Impact on Fund Balance												



The **Fire Apparatus Fund** had total fund balance of \$18,990,529 at the end of Fiscal Year 2019/20. Fund balance was assigned to the Capital Improvement Program (\$4,149,456) and purchase of fire apparatus and vehicles (\$14,841,073). Total fund balance increased by \$7,358,706 during the current fiscal year. The prior fiscal year's fund balance decreased by \$11,959,500, a difference of \$19,318,206. The significant reason(s) for that net difference are identified in the following table.

Impact on Fund Balance (Rounded)	Description
+\$11,820,000	Apparatus and Vehicles. Expenditures to purchase and outfit vehicles vary each year based on organizational needs for new and replacement vehicles. Expenditures were higher in the prior year due to the purchase of six 100' tractor drawn aerials and nine type one engines.
+\$6,000,000	Interfund Transfers. Transfers in from other funds for projects in the Capital Improvement Program increased by \$6,000,000 as compared to the amount transferred the prior year.
+\$1,265,000	Debt Service. Principal and interest on long-term debt decreased because the final debt service payment on OCFA's aircraft lease liability was made in the prior year.
+\$305,000	Charges for Services. Cash contract city vehicle charges increased in accordance with the terms of the Joint Powers Agreement. Charges received from the City of Garden Grove, OCFA's newest member effective August 2019, were the primary reason for the overall increase in revenues.
-\$70,000	Use of Money and Property. The portion of investment portfolio earnings and a net market value gain allocated to the fund decreased (-\$65,000). Interfund borrowing interest earned from the General Fund also decreased due to a decline in the total amount borrowed and the average daily interest rate (-\$5,000).
+\$19,320,000	Fire Apparatus Fund – Net Impact on Fund Balance



The **Fire Stations and Facilities Fund** had total fund balance of \$17,627,926 at the end of Fiscal Year 2019/20. Amounts pertaining to CALFIRE revenues received for future fire station construction (\$391,477) were classified as restricted. Remaining amounts were assigned to the Capital Improvement Program (\$16,623,745) and construction projects (\$612,704). Total fund balance decreased by \$8,314,679 during the current fiscal year. The prior fiscal year's fund balance increased by \$116,905, a difference of \$8,431,584. The significant reason(s) for that net difference are identified in the following table.

Impact on Fund Balance (Rounded)	Description
-\$8,000,000	Interfund Transfers. Transfers out to the Fire Apparatus Fund for projects in the Capital Improvement Program totaled \$8,000,000 in Fiscal Year 2019/20. No amounts were transferred out in the prior year.
-\$380,000	Capital Projects. Expenditures increased by \$380,000 due to multi-year capital improvement projects as follows: <ul style="list-style-type: none"> ➤ During Fiscal Year 2019/20, OCFA commenced its project to replace Fire Station No. 10 (Yorba Linda). In anticipation of two fire stations transitioning back to the City of Placentia on July 1, 2020, OCFA identified an immediate need to acquire multiple portable buildings to house the displaced units (+\$270,000). The remainder of the Fire Station No. 10 replacement project is expected to be completed in Fiscal Year 2020/21. ➤ During Fiscal Year 2017/18, OCFA began a project to stabilize the property and foundation caused by long-term soil erosion at Fire Station No. 42 (Portola Hills). Project costs included permits, geotechnical engineering services, and construction, with most work completed during Fiscal Year 2019/20 (+\$250,000). The project was finalized in November 2019 at a three-year cost of just over \$1 million. ➤ During Fiscal Year 2018/19, OCFA constructed a carport at Fire Station No. 18 (Trabuco) to house various vehicles. The project was completed and went into service in June 2019 (-\$140,000).
-\$275,000	Use of Money and Property. The portion of investment portfolio earnings and a net market value gain allocated to the fund decreased (-\$285,000). Interfund borrowing interest earned from the General Fund increased due to an increase in the total number of days principal was outstanding during the year (+\$10,000).
+\$225,000	Developer Contributions. Contributions generated by Secured Fire Protection Agreements with developers vary each fiscal year based on housing development projects being completed throughout the county. Increases in developer activity primarily related to projects in the City of Lake Forest that were completed in Fiscal Year 2019/20.
-\$8,430,000	Fire Stations and Facilities Fund – Net Impact on Fund Balance

General Fund Budgetary Highlights

The following table summarizes the changes in General Fund appropriations, as well as the variance between the final budget and actual amounts for Fiscal Year 2019/20.

	Original Budget	Increase (Decrease)	Final Budget	Variance Positive (Negative)	Actual Amounts
Salaries and benefits	\$367,957,717	\$13,089,214	\$381,046,931	\$ 6,014,784	\$375,032,147
Services and supplies	54,216,901	27,364,904	81,581,805	15,645,029	65,936,776
Capital outlay	5,010,386	4,454,745	9,465,131	6,222,391	3,242,740
Interest and fiscal charges	9,334	316,306	325,640	-	325,640
	<u>\$427,194,338</u>	<u>\$45,225,169</u>	<u>\$472,419,507</u>	<u>\$27,882,204</u>	<u>\$444,537,303</u>

Adjustments to Appropriations: Budgeted General Fund appropriations increased by \$45,225,169 from the time the original budget was adopted until the end of the fiscal year. Adjustments typically pertained to activities that occurred throughout the year but were either unknown or for which reliable estimates could not be determined at the time of the original budget adoption. Significant adjustments are listed below:

Reason for Adjustment to Original Budget	Increase (Decrease) (Rounded)
Grant activities	\$ 9,090,000
COVID-19 pandemic overtime, services, and supplies	5,410,000
Next Generation Aerial Operations Based Pilot Program	5,365,000
Overtime and backfill for response to out-of-county and other incidents	4,700,000
Fire Integrated Real-Time Intelligence System Pilot Program	4,500,000
Contributions toward unfunded pension liability	4,030,000
Various equipment and vehicles	3,425,000
Firefighter academies	2,430,000
Various Capital Improvement Program projects	1,945,000
Staffing changes, reconfigurations, and service enhancements	(1,335,000)
Employee training	930,000
Helicopter program	695,000
Various professional services	495,000
City of Garden Grove start-up costs	395,000
Vehicle maintenance	370,000
Structural Fire Entitlement projects	330,000
Interest on interfund borrowing	315,000
Information Technology Division maintenance and support	270,000
Facility maintenance	180,000
Workers compensation	140,000
Various other appropriations	1,545,000
Total adjustments	\$45,225,000

Variance Between Final Budget and Actual Amounts: Final, budgeted General Fund expenditures exceeded actual amounts, resulting in a positive budget variance totaling \$27,882,204. Over \$15.6 million of this variance related to various operating costs, projects, and other purchases for services and supplies that were budgeted but not completed during Fiscal Year 2019/20. In some cases, uncompleted projects were delayed due to project complexity or time requirements and will be re-budgeted, if needed, to Fiscal Year 2020/21. Individually significant services and supplies variances are summarized below:

Description of Budget/Actual Variance	Amount (Rounded)
In October 2018, OCFA was awarded a \$5.4 million state grant passed through CALFIRE for invasive tree pest mitigation. A balance of \$5.1 million remains unspent on services and supplies as of June 30, 2020.	\$ 5,140,000
OCFA and the City of Irvine entered into a Settlement Agreement with various provisions that enhance services throughout OCFA's jurisdiction. All projects identified in the agreement were budgeted during Fiscal Year 2019/20; however, the city did not submit any reimbursement requests for the Joint Police-Fire Training Facility or bi-directional amplifiers.	1,550,000
The entire balance of funds committed for Structural Fire Fund projects was budgeted during Fiscal Year 2019/20; however, eligible cities submitted reimbursement requests only for those projects completed.	1,225,000
During Fiscal year 2019/20, amounts budgeted to operate, fuel, and maintain OCFA's helicopter fleet exceeded actual expenditures by \$985,000.	985,000
The amount budgeted for workers' compensation is based on an actuarially-determined estimate. Actual case activity typically occurs over multiple years, which attributes to a difference between budgeted costs and actual expenditures during any given fiscal year. During Fiscal Year 2019/20, actual claims paid from the General Fund were more than the actuarial estimate, creating a negative budget variance.	(740,000)
During Fiscal Year 2019/20, OCFA began a bathroom gender accommodation project at Fire Stations No. 14 (Silverado), No. 16 (Modjeska) and No. 32 (Yorba Linda). The project is expected to take place over multiple fiscal years. Of the \$640,000 budgeted amount, a balance of \$630,000 remains unspent as of June 30, 2020. Contracts have been awarded for nearly \$400,000 of the unspent balance.	630,000

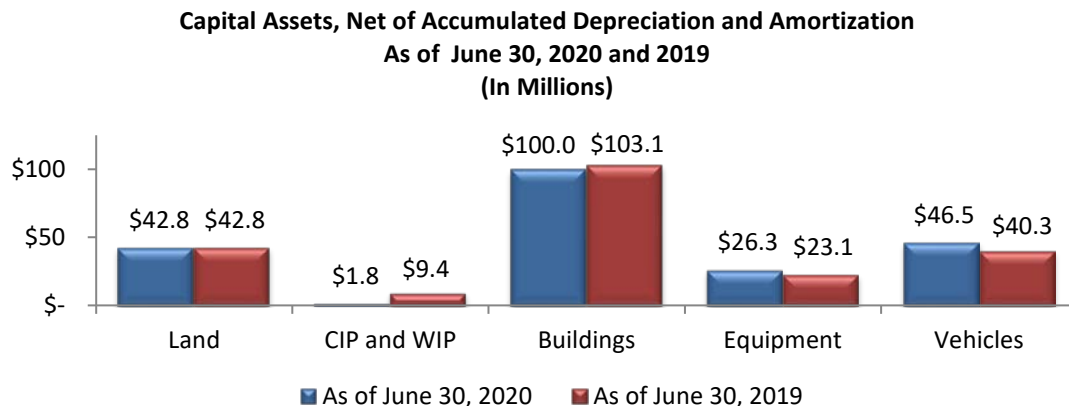
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(Continued)

Description of Budget/Actual Variance	Amount (Rounded)
During Fiscal Year 2019/20, amounts budgeted for recruitment services such as pre-employment background checks, physicals, and psychological assessments exceeded actual expenditures. Some planned activities, such as a volunteer outreach team and marketing for a "Girls Empowerment Weekend," were postponed due to COVID-19.	620,000
In August 2019, OCFA was awarded a \$4.5 million state grant for the Fire Integrated Real-Time Intelligence System (FIRIS) Pilot Program. A balance of nearly \$600,000 remains unspent on services and supplies as of June 30, 2020. It is anticipated that the remaining grant funds will be used during Fiscal Year 2020/21 for the FIRIS 2.0 Program.	560,000
Starting in March 2020, firefighter WEFIT health exams were put on hold due to the COVID-19 pandemic, resulting in budgeted savings for professional services.	430,000
Other variances combined	5,245,000
Total services and supplies variance	\$15,645,000

Capital Assets and Debt Administration

Capital Assets: OCFA's investment in capital assets for its government activities at the end of Fiscal Year 2019/20 totaled \$217,317,435 (net of accumulated depreciation and amortization). This investment in capital assets includes land, buildings, equipment, vehicles, work in progress and construction in progress. No capital-related debt was outstanding as of June 30, 2020. Net capital assets decreased from the prior fiscal year by \$1,325,244 (-0.6%). Following is a summary of net capital assets by type for the current and prior fiscal years.



Land and Buildings: Land and building additions totaled \$350,000 during Fiscal Year 2019/20. The most significant addition was for additional classroom and office spaces at the USAR warehouse, which were transferred in from CIP.

Construction in Progress (CIP) and Work in Progress (WIP): Construction projects completed over the span of multiple fiscal years are classified as CIP at year-end if they are not yet completed and placed into service. Fire engines, trucks, and other vehicles, are classified as WIP at year-end if they are in the process of being outfitted for operation and will be completed over the span of multiple fiscal years. WIP also includes multi-year communications and information systems projects.

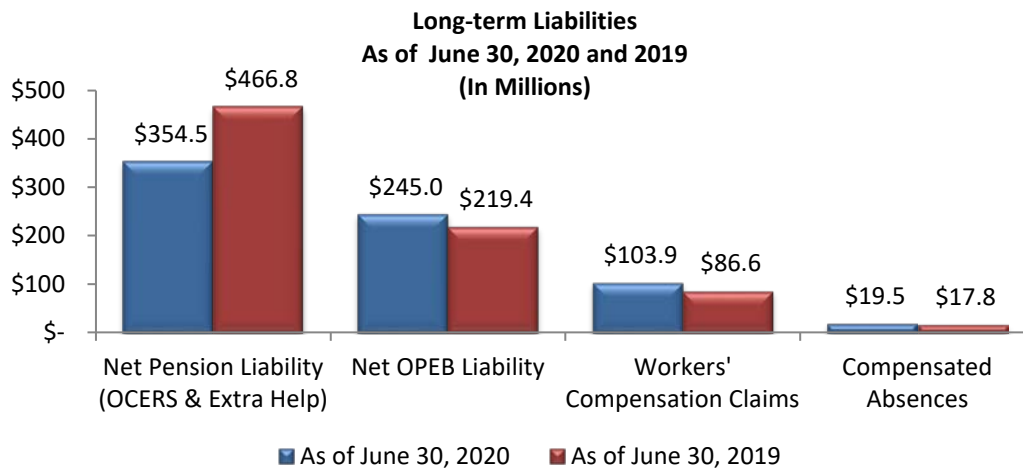
- CIP additions totaling \$350,000 related to additional classroom and office spaces at the USAR warehouse, expansion of the RFOTC training grounds, and dormitory improvements at Fire Station No. 41 (Fullerton Airport). All projects remained in progress at fiscal year-end, except for the USAR warehouse improvements that were placed into service in November 2019.
- WIP additions totaled nearly \$1.4 million during Fiscal Year 2019/20, including costs pertaining to an incident reporting system and dispatcher console upgrades. As of June 30, 2020, sixteen individual WIP projects were placed into service and fourteen were still in progress.

Equipment: Equipment additions totaled nearly \$6.4 million for 206 items placed into service during Fiscal Year 2019/20. The most individually significant additions included the dispatcher console upgrades transferred in from WIP (\$2.2 million); the purchase of ninety-five automatic chest compression devices (\$1.4 million); and an incident reporting system transferred in from WIP (\$660,000).

Vehicles: Vehicle additions totaled over \$11.8 million for 68 items placed into service during Fiscal Year 2019/20. The most individually significant additions included one 100' tractor drawn aerial (\$1.4 million); seven type one engines (\$4.1 million); and three transport tractors (\$585,000). Forty-six vehicles were removed from OCFA's fleet during Fiscal Year 2019/20 as part of OCFA's ongoing vehicle replacement plan. Three of these were returned to the City of Santa Ana. Two support vehicles were in accidents and deemed total losses by OCFA's insurance provider. The remaining vehicles were sold at public auction.

Additional information pertaining to OCFA's capital assets can be found in Note 8 of the accompanying Notes to the Financial Statements.

Long-term Debt: Total long-term liabilities decreased by net \$67,783,192 (-8.5%) during Fiscal Year 2019/20.



The most significant change to long-term liabilities pertained to the net pension liability for the Orange County Employees Retirement System (OCERS) pension plan. As of June 30, 2020, OCFA's share of the plan's net pension liability at OCERS totaled \$354.4 million, as determined by an actuarial valuation for the plan as a whole. This was a net \$112.3 million decrease from the prior fiscal year. The increases and decreases reported for the long-term pension liability are reported using an "accounting-based approach" to fully capture OCFA's net liability and related pension expense incurred during each fiscal year. This differs from the "funding-based approach" used to calculate annual retirement rates and the amount of required employer and employee contributions due from OCFA to OCERS. Net pension liability represents the amount of the total pension liability that exceeds the market value of assets as of June 30. The following table summarizes the changes in the components of the OCERS net pension liability from June 30, 2020 to June 30, 2019.

Component of OCERS			Increase (Decrease)	
Net Pension Liability	As of June 30, 2020	As of June 30, 2019	Amount	%
Safety:				
Total pension liability	\$1,891,853,011	\$1,752,985,666	\$ 138,867,345	7.9%
Market value of assets	<u>1,569,911,269</u>	<u>1,342,090,781</u>	<u>227,820,488</u>	16.9%
Net pension liability - safety	<u>\$ 321,941,742</u>	<u>\$ 410,894,885</u>	<u>\$ (88,953,143)</u>	-22.6%
General:				
Total pension liability	\$ 257,504,904	\$ 243,895,544	\$ 13,609,360	5.5%
Market value of assets	<u>225,051,189</u>	<u>188,058,903</u>	<u>36,992,286</u>	19.6%
Net pension liability - general	<u>\$ 32,453,715</u>	<u>\$ 55,836,641</u>	<u>\$ (23,382,926)</u>	-41.8%
Total:				
Total pension liability	\$2,149,357,915	\$1,996,881,210	\$ 152,476,705	7.6%
Market value of assets	<u>1,794,962,458</u>	<u>1,530,149,684</u>	<u>264,812,774</u>	17.3%
Net pension liability - total	<u>\$ 354,395,457</u>	<u>\$ 466,731,526</u>	<u>\$ (112,336,069)</u>	-24.0%

Additional information on the OCFA's long-term liabilities can be found in Note 19 of the accompanying Notes to the Financial Statements.

Next Year's Budget

The Fiscal Year 2020/21 General Operating Fund adopted expenditure budget is approximately \$415.4 million, which is a net increase of \$8.2 million (2.0%) from the final Fiscal Year 2019/20 General Operating Fund budget totaling \$407.2 million. (These amounts exclude one-time and grant-related items, as well as unspent, encumbered appropriations from the prior fiscal year that are effectually re-appropriated in the ensuing year's budget). Highlights of the Fiscal Year 2020/21 General Operating Fund Budget are as follow:

- Budgeted salaries and benefits increased by \$7.0 million. The budget reflects annual salary costs in accordance with approved Memorandums of Understanding with all labor groups. The retirement budget for Fiscal Year 2020/21 is based on rates provided by the Orange County Employees Retirement System (OCERS).
- Budgeted services and supplies and capital outlay increased by \$1.2 million. Overall, budgets were held flat as compared to Fiscal Year 2019/20, with any increases identified by OCFA management on a case-by-case basis. In general, the base Fiscal Year 2020/21 budget excludes one-time, grant-related, and assistance by hire expenditures at the time of adoption, as these projects will be budgeted as-needed throughout the upcoming fiscal year.

Requests for Information

This financial report is designed to provide a general overview of OCFA's and the OCFA Foundation's finances for all those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Finance Manager, Orange County Fire Authority, 1 Fire Authority Road, Irvine, California 92602.

Government-wide Financial Statements



Fire Exploring Academy
July 18, 2019



Orange County Fire Authority Safety Message

2-1-1 Helpline (Part 2 of 3)

(Continued from Page 4)



2-1-1 is a nonprofit organization that provides information and referrals for thousands of services, including shelter, health care, and job placement.

Safety Tips

If you need help finding non-emergency services in your area, 2-1-1 Orange County is available 24 hours a day. 2-1-1 is fast, free, confidential, and available in more than 150 languages. In addition to calling 2-1-1, you can also visit their website at www.211oc.org.

2-1-1 Programs and Services, (Continued)

Specially trained 2-1-1 operators connect callers with more than 2,000 local government and nonprofit organizations. These agencies have programs dedicated to many personal and family needs, including:

- | | |
|----------------------------|--------------------|
| ✓ Healthcare and Insurance | ✓ Substance Abuse |
| ✓ Job Training | ✓ Funeral Services |
| ✓ Transportation | |

(Continued on Page 26)

ORANGE COUNTY FIRE AUTHORITY
Statement of Net Position
June 30, 2020
(With Comparative Data for Prior Year)

	Primary Government		Component Unit	
	Governmental Activities		OCFA Foundation	
	2020	2019	2020	2019
Assets:				
Cash and investments (Note 4)	\$ 187,297,857	\$ 179,712,898	\$ 160,475	\$ 139,105
Accounts receivable, net (Note 5)	2,566,137	3,875,095	-	-
Accrued interest receivable	376,640	539,528	-	-
Prepaid costs and other assets (Note 6)	24,034,974	20,704,660	-	104
Due from other governments, net (Note 7)	16,765,308	11,499,239	-	-
Restricted cash and investments (Note 4)	2,121,417	-	-	-
Capital assets (Note 8):				
Land	42,757,850	42,757,850	-	-
Construction in progress	338,554	294,365	-	-
Work in progress	1,462,545	9,104,582	-	-
Capital assets, net of accumulated depreciation/amortization	172,758,486	166,485,882	13,515	14,314
Total assets	<u>450,479,768</u>	<u>434,974,099</u>	<u>173,990</u>	<u>153,523</u>
Deferred outflows of resources:				
Deferred outflows of resources related to pensions/OPEB (Note 22)	127,422,203	159,936,990	-	-
Total deferred outflows of resources	<u>127,422,203</u>	<u>159,936,990</u>	<u>-</u>	<u>-</u>
Liabilities:				
Accounts payable	5,730,979	7,031,219	-	8,199
Accrued liabilities	10,980,091	10,183,314	-	-
Unearned revenue (Note 9)	574,002	29,120	-	1,200
Due to other governments (Note 10)	106,037	298,186	-	-
Compensated absences due within one year (Note 19)	4,486,981	3,674,575	-	-
Claims and judgments due within one year (Note 19)	14,808,917	14,128,312	-	-
Noncurrent liabilities due in more than one year:				
Compensated absences due in more than one year (Note 19)	15,036,102	14,113,156	-	-
Claims and judgments due in more than one year (Note 19)	89,136,878	72,488,674	-	-
Net OPEB liability (Notes 19)	244,964,263	219,437,807	-	-
Proportionate share net pension liability (Notes 19)	354,471,308	466,845,117	-	-
Total liabilities	<u>740,295,558</u>	<u>808,229,480</u>	<u>-</u>	<u>9,399</u>
Deferred inflows of resources:				
Deferred inflows of resources related to pensions/OPEB (Note 22)	112,271,211	84,751,923	-	-
Total deferred outflows of resources	<u>112,271,211</u>	<u>84,751,923</u>	<u>-</u>	<u>-</u>
Net position:				
Investment in capital assets (Note 8b)	217,317,435	218,642,679	13,515	14,314
Restricted for capital projects	391,477	403,489	-	-
Restricted for drought augmentation activities	956,880	1,950,806	-	-
Restricted for greenhouse gas reduction activities	1,354,680	677,340	-	-
Restricted for Section 115 pension trust	2,120,383	-	-	-
Restricted for grants, donations, and other programs	1,836,756	1,246,669	39,490	33,525
Unrestricted	(498,642,409)	(520,991,297)	120,985	96,285
Total net position	<u>\$ (274,664,798)</u>	<u>\$ (298,070,314)</u>	<u>\$ 173,990</u>	<u>\$ 144,124</u>

See Notes to the Financial Statements

ORANGE COUNTY FIRE AUTHORITY
Statement of Activities
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	Primary Government		Component Unit	
	Governmental Activities		OCFA Foundation	
	2020	2019	2020	2019
Expenses:				
Public safety:				
Salaries and benefits	\$ 352,573,221	\$ 339,249,853	\$ -	\$ -
Services and supplies	84,600,263	62,877,930	99,717	51,503
Depreciation and amortization (Note 8c)	12,137,499	10,531,098	799	799
Interest on long-term debt	-	11,444	-	-
Total program expenses	<u>449,310,983</u>	<u>412,670,325</u>	<u>100,516</u>	<u>52,302</u>
Program revenues:				
Public safety:				
Charges for services	156,740,363	128,320,646	-	-
Operating grants and contributions	29,275,482	15,454,060	130,382	57,203
Capital grants and contributions	<u>3,850,481</u>	<u>454,200</u>	<u>-</u>	<u>-</u>
Total program revenues	<u>189,866,326</u>	<u>144,228,906</u>	<u>130,382</u>	<u>57,203</u>
Net program (expenses) revenues	<u>(259,444,657)</u>	<u>(268,441,419)</u>	<u>29,866</u>	<u>4,901</u>
General revenues:				
Property taxes	277,721,815	264,267,387	-	-
Investment income	3,302,632	4,236,800	-	-
Gain on disposal of capital assets	12,641	-	-	-
Miscellaneous	<u>1,813,085</u>	<u>1,320,364</u>	<u>-</u>	<u>-</u>
Total general revenues	<u>282,850,173</u>	<u>269,824,551</u>	<u>-</u>	<u>-</u>
Change in net position	<u>23,405,516</u>	<u>1,383,132</u>	<u>29,866</u>	<u>4,901</u>
Net position at beginning of year	<u>(298,070,314)</u>	<u>(299,453,446)</u>	<u>144,124</u>	<u>139,223</u>
Net position at end of year	<u>\$ (274,664,798)</u>	<u>\$ (298,070,314)</u>	<u>\$ 173,990</u>	<u>\$ 144,124</u>

See Notes to the Financial Statements



Orange County Fire Authority Safety Message

2-1-1 Helpline (Part 3 of 3)

(Continued from Page 23)



2-1-1 is a nonprofit organization that provides information and referrals for thousands of services, including shelter, health care, and job placement.

Safety Tips

If you need help finding non-emergency services in your area, 2-1-1 Orange County is available 24 hours a day. 2-1-1 is fast, free, confidential, and available in more than 150 languages. In addition to calling 2-1-1, you can also visit their website at www.211oc.org.

Calling 2-1-1 During Emergencies

2-1-1 also serves as a public information system during disasters or local emergencies, providing information on road closures, emergency shelters, and evacuation.

Fund Financial Statements



Garden Grove Badge Presentation
August 13, 2019



Orange County Fire Authority Safety Message

Burn Safety (Part 1 of 3)



In 2018, roughly 70,000 people went to the emergency room because of contact burns. About one-third of these patients were children under the age of 5.

Safety Tips

A burn is damage to the skin caused by heat. Burns and scalds can occur from certain tools, appliances, hot water, or the sun. Every 60 seconds, someone in the United States sustains a burn serious enough to require treatment.

Types of Burns

First Degree (Minor)

- ✓ First degree burns usually result in redness and mild pain.

Second Degree (Moderate)

- ✓ Second degree burns are usually bright red with a moist or blistered appearance.

Third Degree (Severe)

- ✓ Third degree burns usually appear charred or ashen and are black or brown in color. These burns can result in devastating injury including the loss of function, loss of limbs, disfigurement, reoccurring infection, and sometimes death.

(Continued on Page 36)

ORANGE COUNTY FIRE AUTHORITY
Governmental Funds
Balance Sheet
June 30, 2020
(With Comparative Data for Prior Year)

		Capital Projects Funds			Total Governmental Funds	
		Communications and Information Systems	Fire Apparatus	Fire Stations and Facilities	2020	2019
	General Fund					
Assets:						
Cash and investments (Note 4)	\$ 144,154,508	\$ 6,491,998	\$ 18,976,632	\$ 17,674,719	\$ 187,297,857	\$ 179,712,898
Accounts receivable, net (Note 5)	2,566,137	-	-	-	2,566,137	3,875,095
Accrued interest receivable	237,707	17,833	34,354	86,746	376,640	539,528
Prepaid costs and other assets (Note 6)	42,717,727	4,247	-	-	42,721,974	36,772,660
Due from other governments, net (Note 7)	16,765,308	-	-	-	16,765,308	11,499,239
Restricted cash and investments (Note 4)	2,121,417	-	-	-	2,121,417	-
Total assets	\$ 208,562,804	\$ 6,514,078	\$ 19,010,986	\$ 17,761,465	\$ 251,849,333	\$ 232,399,420
Liabilities:						
Accounts payable	\$ 5,291,818	\$ 285,165	\$ 20,457	\$ 133,539	\$ 5,730,979	\$ 7,031,219
Accrued liabilities	10,980,091	-	-	-	10,980,091	10,183,314
Unearned revenue (Note 9)	574,002	-	-	-	574,002	29,120
Due to other governments (Note 10)	106,037	-	-	-	106,037	298,186
Total liabilities	16,951,948	285,165	20,457	133,539	17,391,109	17,541,839
Deferred inflows of resources:						
Unavailable revenue (Note 9)	1,022,603	-	-	-	1,022,603	650,814
Total deferred inflows of resources	1,022,603	-	-	-	1,022,603	650,814
Fund balances:						
Nonspendable prepaid costs (Note 6)	42,700,572	4,247	-	-	42,704,819	36,746,110
Restricted (Note 11):						
Capital improvement program	-	-	-	391,477	391,477	391,477
Various departments	4,148,316	-	-	-	4,148,316	3,874,815
Communications/IT projects	-	-	-	-	-	12,012
Section 115 pension trust	2,120,383	-	-	-	2,120,383	-
Committed to SFF cities (Note 12)	1,288,272	-	-	-	1,288,272	1,338,850
Assigned (Note 13):						
Capital improvement program	5,123,124	6,121,588	4,149,456	16,623,745	32,017,913	43,739,218
Workers' compensation	98,998,999	-	-	-	98,998,999	88,772,530
Various departments	739,400	-	-	-	739,400	1,391,734
Facilities projects	83,568	-	-	-	83,568	216,020
Communications/IT projects	359,144	103,078	-	-	462,222	995,936
Fire apparatus and vehicles	-	-	14,841,073	-	14,841,073	3,379,756
Construction projects	672,540	-	-	612,704	1,285,244	667,639
Unassigned (Note 14)	34,353,935	-	-	-	34,353,935	32,680,670
Total fund balances	190,588,253	6,228,913	18,990,529	17,627,926	233,435,621	214,206,767
Total liabilities, deferred inflows of resources, and fund balances	\$ 208,562,804	\$ 6,514,078	\$ 19,010,986	\$ 17,761,465	\$ 251,849,333	\$ 232,399,420

See Notes to the Financial Statements

ORANGE COUNTY FIRE AUTHORITY
Reconciliation of the Balance Sheet of Governmental Funds to the Statement of Net Position
June 30, 2020
(With Comparative Data for Prior Year)

	2020	2019
Fund balances of governmental funds	\$ 233,435,621	\$ 214,206,767
<u>Capital Assets</u>		
The cost of capital assets used in governmental activities are recorded as expenditures in governmental funds when purchased or constructed. The Statement of Net Position includes those capital assets among the assets of OCFA as a whole, net of accumulated depreciation/amortization.		
Capital assets	372,248,496	366,465,122
Accumulated depreciation/amortization	(154,931,061)	(147,822,443)
<u>Long-term Liabilities</u>		
Long-term liabilities applicable to governmental activities are not due and payable in the current period and are not reported as governmental fund liabilities. All liabilities, both current and long-term, are reported in the Statement of Net Position.		
OCERS pension plan:		
Net pension liability	(354,395,457)	(466,731,526)
Pension contributions	(18,687,000)	(16,068,000)
Deferred outflows of resources	112,123,798	157,497,646
Deferred inflows of resources	(97,996,328)	(59,178,911)
Extra Help pension plan:		
Net pension liability	(75,851)	(113,591)
Deferred outflows of resources	874	18,646
Deferred inflows of resources	-	(12,234)
Other postemployment benefits (OPEB):		
Net OPEB liability	(244,964,263)	(219,437,807)
Deferred outflows of resources	15,297,531	2,420,698
Deferred inflows of resources	(14,274,883)	(25,560,778)
Accrued claims and judgments	(103,945,795)	(86,616,986)
Compensated absences	(19,523,083)	(17,787,731)
<u>Unavailable Revenues</u>		
Unavailable revenues are reported in the governmental funds if not collected or expected to be collected within OCFA's availability period. Amounts relating to unavailable revenues are not reported in the Statement of Net Position since revenue recognition is not based upon measurable and available criteria.		
Due from other governments - Garden Grove start-up costs	1,022,603	650,814
Net position of governmental activities	<u>\$ (274,664,798)</u>	<u>\$ (298,070,314)</u>

See Notes to the Financial Statements

ORANGE COUNTY FIRE AUTHORITY
Governmental Funds
Statement of Revenues, Expenditures and Changes in Fund Balances
Year ended June 30, 2020
(With Comparative Data for Prior Year)

		Capital Projects Funds			Total Governmental Funds	
		Communications and Information Systems	Fire Apparatus	Fire Stations and Facilities	2020	2019
	General Fund					
Revenues:						
Taxes	\$ 277,721,815	\$ -	\$ -	\$ -	\$ 277,721,815	\$ 264,267,387
Intergovernmental	41,258,003	-	-	-	41,258,003	28,521,605
Charges for services	136,890,975	-	1,750,537	-	138,641,512	113,719,047
Use of money and property	2,811,361	132,392	339,613	344,906	3,628,272	4,558,041
Miscellaneous	6,256,568	-	-	-	6,256,568	1,428,134
Developer contributions	-	-	-	679,800	679,800	454,200
Total revenues	<u>464,938,722</u>	<u>132,392</u>	<u>2,090,150</u>	<u>1,024,706</u>	<u>468,185,970</u>	<u>412,948,414</u>
Expenditures:						
Current - public safety:						
Salaries and benefits	375,032,147	-	-	-	375,032,147	346,953,705
Services and supplies	65,936,776	573,225	-	761,453	67,271,454	49,488,301
Capital outlay	3,242,740	1,237,967	2,731,444	577,932	7,790,083	20,095,072
Debt service:						
Principal retirement	-	-	-	-	-	1,253,718
Interest and fiscal charges	325,640	-	-	-	325,640	333,385
Total expenditures	<u>444,537,303</u>	<u>1,811,192</u>	<u>2,731,444</u>	<u>1,339,385</u>	<u>450,419,324</u>	<u>418,124,181</u>
Excess (deficiency) of revenues over (under) expenditures	<u>20,401,419</u>	<u>(1,678,800)</u>	<u>(641,294)</u>	<u>(314,679)</u>	<u>17,766,646</u>	<u>(5,175,767)</u>
Other financing sources (uses):						
Transfers in (Note 16)	-	-	8,000,000	-	8,000,000	2,150,000
Transfers out (Note 16)	-	-	-	(8,000,000)	(8,000,000)	(2,150,000)
Sale of capital assets	142,044	-	-	-	142,044	22,548
Insurance recoveries	1,320,164	-	-	-	1,320,164	775,470
Total other financing sources (uses)	<u>1,462,208</u>	<u>-</u>	<u>8,000,000</u>	<u>(8,000,000)</u>	<u>1,462,208</u>	<u>798,018</u>
Net change in fund balances	<u>21,863,627</u>	<u>(1,678,800)</u>	<u>7,358,706</u>	<u>(8,314,679)</u>	<u>19,228,854</u>	<u>(4,377,749)</u>
Fund balances, beginning of year	<u>168,724,626</u>	<u>7,907,713</u>	<u>11,631,823</u>	<u>25,942,605</u>	<u>214,206,767</u>	<u>218,584,516</u>
Fund balances, end of year	<u>\$ 190,588,253</u>	<u>\$ 6,228,913</u>	<u>\$ 18,990,529</u>	<u>\$ 17,627,926</u>	<u>\$ 233,435,621</u>	<u>\$ 214,206,767</u>

See Notes to the Financial Statements

ORANGE COUNTY FIRE AUTHORITY
Reconciliation of the Statement of Revenues, Expenditures and Changes in
Fund Balances of Governmental Funds to the Statement of Activities
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	2020	2019
Net change in fund balances - total governmental funds	\$ 19,228,854	\$ (4,377,749)
<u>Capital Assets</u>		
Governmental funds report capital outlays as expenditures. The cost of those assets is allocated over their estimated useful lives as depreciation/amortization expense in the Statement of Activities.		
Capital outlay	7,790,083	20,095,072
Depreciation/amortization expense	(12,137,499)	(10,531,098)
Capital assets received through grant or donation are recognized as revenue in the Statement of Activities at their estimated acquisition value at time of receipt.		
From new member agencies	2,947,511	-
From developers, grantors, and donors	223,170	-
Governmental funds report proceeds from disposal of capital assets as other financing sources. In the Statement of Activities, those proceeds are offset by the net book value of the assets, resulting in a gain or loss on the sale.		
Capital asset disposals	(5,177,390)	(1,542,415)
Accumulated depreciation/amortization on disposals	5,028,881	1,415,580
<u>Long-term Liabilities</u>		
Repayment of principal on the capital lease purchase agreement is reported as an expenditure in governmental funds. Principal payments reduce the long-term liability in the Statement of Net Position.		
	-	1,253,718
Other long-term liabilities are reported in the Statement of Net Position. The net annual change in the liability is recognized as an expense in the Statement of Activities. Long-term liabilities do not require the use of current financial resources and are not reported as expenditures in the governmental funds.		
OCERS pension plan	25,525,804	6,888,755
Extra Help pension plan	32,202	7,375
Other postemployment benefits (OPEB)	(1,363,728)	1,197,382
Accrued claims and judgments - workers' compensation	(17,328,809)	(13,285,342)
Compensated absences - other leave balances	(1,735,352)	(389,660)
<u>Accrued Interest</u>		
Interest expenditures are reported when paid in the governmental funds, while the net change in accrued interest incurred for the period is recognized as interest expense in the Statement of Activities.		
	-	700
<u>Unavailable Revenues</u>		
Certain receivables that have been accrued but not collected are reflected as unavailable revenue in the governmental funds. All earned revenue is recognized in the Statement of Activities regardless of when collected.		
Charges for services - Garden Grove start-up costs	371,789	650,814
<u>Interfund Transactions</u>		
Transactions between governmental funds are eliminated for presentation in the government-wide financial statements.		
Transfers in	(8,000,000)	(2,150,000)
Transfers out	8,000,000	2,150,000
Use of money and property	(325,640)	(321,241)
Interest and fiscal charges	325,640	321,241
Change in net position of governmental activities	<u>\$ 23,405,516</u>	<u>\$ 1,383,132</u>

See Notes to the Financial Statements

ORANGE COUNTY FIRE AUTHORITY
General Fund
Budgetary Comparison Statement
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	2020			2019
	Budget Amounts		Variance with Final Budget Positive (Negative)	Actual Amounts
	Original	Final	Amounts	
Budgetary fund balance, July 1	\$ 168,724,626	\$ 168,724,626	\$ 168,724,626	\$ -
Resources (inflows):				
Taxes	272,047,362	274,312,362	277,721,815	3,409,453
Intergovernmental	19,961,585	45,809,560	41,258,003	(4,551,557)
Charges for services	136,507,014	136,033,917	136,890,975	857,058
Use of money and property	3,603,958	2,216,116	2,811,361	595,245
Miscellaneous	980,758	6,336,757	6,256,568	(80,189)
Sale of capital assets	48,027	48,027	142,044	94,017
Insurance recoveries	-	996,183	1,320,164	323,981
Total resources (inflows)	433,148,704	465,752,922	466,400,930	648,008
Amounts available for appropriations	601,873,330	634,477,548	635,125,556	648,008
Charges to appropriation (outflows):				
Salaries and benefits	367,957,717	381,046,931	375,032,147	6,014,784
Services and supplies	54,216,901	81,581,805	65,936,776	15,645,029
Capital outlay	5,010,386	9,465,131	3,242,740	6,222,391
Interest and fiscal charges	9,334	325,640	325,640	-
Transfers out	-	-	-	-
Total charges to appropriations	427,194,338	472,419,507	444,537,303	27,882,204
Budgetary fund balance, June 30	\$ 174,678,992	\$ 162,058,041	\$ 190,588,253	\$ 28,530,212

See Notes to the Financial Statements

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Statement of Fiduciary Net Position
June 30, 2020
(With Comparative Data for Prior Year)

	Pension and Other Employee Benefit Trust Funds	Total Fiduciary Funds	
		2020	2019
Assets:			
Cash and investments (Note 4):			
Local Agency Investment Fund:			
Domestic fixed income	\$ 46,934	\$ 46,934	\$ 57,548
Pooled amounts held in trust with OCERS	42,242,955	42,242,955	39,397,934
Total cash and investments	42,289,889	42,289,889	39,455,482
Receivables:			
Other receivables	12,302	12,302	8,423
Total assets	42,302,191	42,302,191	39,463,905
Liabilities:			
Accrued liabilities	850,367	850,367	375,019
Total liabilities	850,367	850,367	375,019
Net position restricted for:			
Pensions	46,934	46,934	57,548
Postemployment benefits other than pensions	41,404,890	41,404,890	39,031,338
Total net position	<u>\$ 41,451,824</u>	<u>\$ 41,451,824</u>	<u>\$ 39,088,886</u>

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Statement of Changes in Fiduciary Net Position
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	Pension and Other Employee Benefit Trust Funds	Total Fiduciary Funds	
		2020	2019
Additions:			
Contributions:			
Employer	\$ 2,222,636	\$ 2,222,636	\$ 4,003,199
Plan members	2,112,049	2,112,049	2,268,990
Total contributions	4,334,685	4,334,685	6,272,189
Net investment income:			
Total investment income	5,566,977	5,566,977	(455,999)
Investment fees and expenses	(264,395)	(264,395)	(270,315)
Total net investment income	5,302,582	5,302,582	(726,314)
Total additions	9,637,267	9,637,267	5,545,875
Deductions:			
Benefits and refunds paid to plan members and beneficiaries	7,253,089	7,253,089	6,820,071
Administrative expenses	21,240	21,240	30,304
Total deductions	7,274,329	7,274,329	6,850,375
Change in net position	2,362,938	2,362,938	(1,304,500)
Net position, beginning of year	39,088,886	39,088,886	40,393,386
Net position, end of year	\$ 41,451,824	\$ 41,451,824	\$ 39,088,886

See Notes to the Financial Statements

Notes to the Financial Statements



9/11 Memorial and Remembrance
September 11, 2019

ORANGE COUNTY FIRE AUTHORITY
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Year ended June 30, 2020

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Orange County Fire Authority Safety Message

Burn Safety (Part 2 of 3)

(Continued from Page 27)



In 2018, roughly 70,000 people went to the emergency room because of contact burns. About one-third of these patients were children under the age of 5.

Safety Tips

A burn is damage to the skin caused by heat. Burns and scalds can occur from certain tools, appliances, hot water, or the sun. Every 60 seconds, someone in the United States sustains a burn serious enough to require treatment.

How to Treat a Burn

- ✓ Turn off the heat source and make sure the surroundings are safe.
- ✓ Remove clothing and jewelry near a burn, but do not peel off clothing stuck to the burn.
- ✓ Run cool water (not cold or icy) on the burn for 5-10 minutes until the pain subsides.
- ✓ Apply an antibiotic ointment or dressing to the burn to keep it moist. Do not use creams or greasy substances like butter, toothpaste, or eggs. These can cause infection.
- ✓ Call 9-1-1 if you have a burn that affects your mobility or sensation, for any burn larger than your hand, or if the burn affects the feet, face, eyes, or genitalia.

(Continued on Page 96)

ORANGE COUNTY FIRE AUTHORITY
Notes to the Financial Statements
Year ended June 30, 2020

(1) Summary of Significant Accounting Policies

(a) Description of the Reporting Entity

Effective March 1, 1995, the County of Orange (County) and the cities of Buena Park, Cypress, Dana Point, Irvine, Laguna Hills, Laguna Niguel, Lake Forest, La Palma, Los Alamitos, Mission Viejo, Placentia, San Clemente, San Juan Capistrano, Seal Beach, Stanton, Tustin, Villa Park, and Yorba Linda entered into a Joint Powers Agreement (JPA) to create the Orange County Fire Authority (OCFA). Since the creation of the OCFA, the cities of Aliso Viejo, Garden Grove, Laguna Woods, Rancho Santa Margarita, Santa Ana, and Westminster have also joined as members.

The purpose of OCFA is to provide fire protection, prevention, suppression, and related and incidental services including, but not limited to, emergency medical and transport services and hazardous materials regulation, as well as providing facilities and personnel for such services. OCFA's governing board consists of one representative from each member city, except for the City of Placentia, and two from the County. As of June 30, 2020, a representative from the City of Placentia no longer serves on the governing board in accordance with the provisions of the JPA because the city issued notice of withdrawal from OCFA. Issuance of the notice of withdrawal (1) does not become effective until July 1, 2020; (2) can be rescinded by the member agency at any time before July 1, 2020, upon approval by the OCFA Board of Directors; and (3) results in removal of the member agency's representative from the OCFA Board of Directors until the notice is rescinded.

OCFA's operations are funded with a portion of property taxes collected by the County (Structural Fire Fund) for the unincorporated area and on behalf of all member cities except for the cities of Buena Park, Garden Grove, Placentia, San Clemente, Santa Ana, Seal Beach, Stanton, Tustin, and Westminster, which are considered cash contract cities. The County pays all Structural Fire Fund taxes it collects to OCFA. Cash contract cities make cash contributions based on OCFA's annual budget. Upon dissolution, all surplus money and property of OCFA will be conveyed or distributed to each member in proportion to all funds provided to OCFA by that member or by the County on behalf of that member during its membership. Each member must execute any instruments of conveyance necessary to effectuate such distribution or transfer.

As required by generally accepted accounting principles, these financial statements present OCFA as the primary government, as well as any of its component units. A component unit is an entity for which a primary government entity is considered financially accountable.

- The primary government is considered financially accountable for an organization if it appoints a voting majority of that organization's governing body, and (1) if the primary government is able to impose its will on that organization or (2) there is a potential for that organization to provide specific financial benefits to or impose specific financial burdens on the primary government.
- The primary government may also be considered financially accountable for an organization if that organization is fiscally dependent on the primary government (i.e., the organization is unable to approve or modify its budget, levy taxes or set rates/charges, or issue bonded debt without approval from the primary government).
- In certain cases, other organizations are included as component units if the nature and significance of their relationship with the primary government are such that their exclusion would cause the primary government's financial statements to be misleading or incomplete, even though the primary government is not considered financially accountable for that organization under the criteria previously described. A legally separate, tax exempt organization is reported as a component unit if (1) the economic resources received or held by the organization are entirely or almost entirely for the direct benefit of the primary government or its constituents; (2) the primary government is entitled to or has the ability otherwise access a majority of the economic resources received or held by the organization; and (3) the economic resources received or held by the organization are significant to the primary government.

Component units must be classified as either “blended” or “discrete” in the primary government’s financial statements. A component unit is “blended” if the governing boards of the two organizations are substantially the same, or if the component unit provides services entirely or almost entirely to the primary government. Because of the closeness of its relationship with the primary government, a “blended” component unit is presented as though it is part of the primary government and, therefore, is included in both the government-wide and fund financial statements. Component units that do not meet either of these two criteria are considered “discrete” and are reported only in the government-wide financial statements.

A brief description of OCFA’s discretely presented component unit is as follows:

- The **OCFA Foundation** (“Foundation”) was established by the OCFA Board of Directors in July 2010, and qualifies as a nonprofit corporation under Section 501(c)(3) of the Internal Revenue Code and Section 23701(d) of the California Revenue and Taxation Code. The purpose of the Foundation is to support OCFA with the additional resources needed to provide an enhanced level of fire prevention, suppression, and emergency medical services to the citizens of Orange County. The Foundation assists OCFA by conducting fundraising activities and securing non-government grant funds, services, materials, and contributions that support OCFA’s mission. OCFA provided \$50,000 from the General Fund as start-up funding for the Foundation. The tax-exempt status of the Foundation was approved by the Internal Revenue Service on February 23, 2011, and the inaugural meeting of the Foundation Board was April 28, 2011.

The Foundation’s Board of Directors consists of no less than three and no more than seven members, the exact number determined by resolution of the Foundation Board. Foundation Board members must have been active in or had significant prior experience in governmental or community organizations, or the fire service. The Foundation Board may consist of any combination of members of the public, OCFA employees, and/or past or current OCFA Board members. Initially, the Chair of OCFA’s Board appointed the first three Foundation Directors. As of June 30, 2020, there were five non-OCFA Board members on the Foundation’s Board. Additional members may be appointed by the Foundation Board at a future date via a simple majority vote.

The Foundation is considered a component unit of OCFA, because the nature and significance of its relationship with OCFA is such that its exclusion would cause OCFA’s financial statements to be misleading or incomplete. Within these financial statements, the Foundation is reported as a discrete component unit in the government-wide financial statements. The Foundation also issues separate, component unit financial statements that may be obtained through written request from the OCFA Finance Division at 1 Fire Authority Road, Irvine, California 92602.

OCFA reports the Extra Help Retirement Plan and the Retiree Medical Plan, single-employer pension and other post-employment benefits plans, respectively, as fiduciary component units in the Pension and Other Post-Employment Benefits Trust Funds. These plans are administered by OCFA, with the OCFA Board serving as the governing body of the plans and approving plan provisions. Plan assets are held in trust in a fiduciary capacity for the purpose of providing pension and other post-employment benefits to OCFA’s retirees. As such, these component units are not reported as part of the OCFA’s reporting entity, but rather as fiduciary activities in accordance with GASB Statement No. 84.

(b) Measurement Focus and Basis of Accounting

Government-wide Financial Statements

The government-wide financial statements (i.e., the Statement of Net Position and the Statement of Activities), report information about OCFA as a whole, excluding its fiduciary activities. As a general rule, the effect of interfund activity has been eliminated from the government-wide financial statements. During the course of operations, OCFA has activity between its governmental funds for various purposes. Residual balances at the end of the fiscal year, interfund transfers, and other transactions between governmental funds, if any, are eliminated in the preparation of the government-wide financial statements.

The Statement of Activities demonstrates the degree to which the direct expenses of the given function are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function. Program revenues include (1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function and (2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function. Taxes and other items not properly included among program revenues are reported instead as general revenues.

The government-wide financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting*. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenues in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Fund Financial Statements

Separate financial statements are provided for governmental funds and fiduciary funds, even though the latter are excluded from the government-wide financial statements. Major individual governmental funds are reported as separate columns in the fund financial statements.

Governmental fund financial statements are reported using the *current financial resources measurement focus* and the *modified accrual basis of accounting*. Revenues are recognized when they are both measurable and available. Revenues are considered available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. OCFA considers revenues to be available if they are typically collected within 180 days of the end of the current fiscal period, with the exception of property taxes, which are considered available if they are typically collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred under the accrual basis of accounting. However, debt service expenditures, as well as expenditures related to compensated absences and claims and judgments, are recorded only when payment is due.

Property taxes, charges for services, and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items are considered to be measurable and available only when cash is received by OCFA.

Fiduciary fund financial statements are reported using the same *economic resources measurement focus* and the *accrual basis of accounting* described for the government-wide financial statements.

(c) Major Funds and Other Fund Types

Major Governmental Funds

Major funds are those whose revenues, expenditures, assets, or liabilities are at least 10% of corresponding totals for all governmental funds. The General Fund is always a major fund. OCFA has elected to report all of its governmental funds as major funds.

- The **General Fund** is the primary operating fund of OCFA and is used to account for all financial resources not accounted for and reported in another fund. The General Fund accounts for the financial activities of providing fire suppression, protection, prevention, and related services to OCFA's member cities and unincorporated areas. The primary sources of revenue are property taxes for fire protection (Structural Fire Fund), cash contracts, intergovernmental reimbursements, and various user fees.
- The **Communications and Information Systems Fund** is a capital projects fund used to account for the significant acquisition, improvement, or replacement of specialized communications and information technology systems and/or equipment.

- The **Fire Apparatus Fund** is a capital projects fund used to account for the significant acquisition, improvement, or replacement of fire apparatus, including vehicles, trailers, and helicopters.
- The **Fire Stations and Facilities Fund** is a capital projects fund used to account for the significant acquisition, improvement, replacement, or construction of fire stations and facilities.

Fiduciary Fund Types

- **Pension and Other Employee Benefit Trust Funds** are used to report resources that are required to be held in trust for the members and beneficiaries of defined benefit pension plans, defined contribution plans, other postemployment benefit plans, or other employee benefit plans. OCFA's pension and other employee benefit trust funds account for the extra help postemployment defined benefit retirement plan, and a postemployment health care plan trust established under Internal Revenue Code section 401(h) to pay health allowances to eligible retired members of the OCFA. The postemployment healthcare plan is presented in accordance with the plan year-end of December 31.

(d) Cash and Investments

OCFA's cash and cash equivalents are considered to be cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition. For financial statement presentation purposes, cash and cash equivalents are shown as both restricted and unrestricted cash and investments.

Investments are stated at fair value (the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants), in accordance with GASB Statement No. 72. OCFA's policy is generally to hold investments until maturity. The State Treasurer's Investment Pool operates in accordance with appropriate state laws and regulations. The reported value of the pool is the same as the fair value of the pool shares.

(e) Receivables

All accounts receivable are shown net of an allowance for uncollectible amounts.

Under California law, counties assess and collect property taxes up to 1% of assessed value and can increase the property tax rate no more than 2% per year. The property taxes go into a pool and are then allocated to the cities and local government entities based on complex formulas. The County bills and collects the property taxes and distributes them to OCFA in installments during the year. Accordingly, OCFA accrues only those taxes which are received from the County within 60 days after year-end. A summary of the property tax calendar is as follows:

Lien date	January 1
Levy date	Fourth Monday of September
Due dates	November 1 and February 1
Delinquent dates	December 10 and April 10

(f) Inventories and Prepaid Costs

OCFA accounts for all supplies inventories (i.e., office supplies, automotive parts, vehicle and jet fuel, etc.) under the "purchase method," whereby expenditures are recognized at the time they are purchased, rather than when they are consumed or used.

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid costs in both the government-wide and fund financial statements. OCFA accounts for prepaid items (i.e., warranties, annual maintenance fees, and professional memberships) under the "consumption method," whereby expenditures are recognized proportionately over the period that the services are provided. Nonspendable fund balance in an amount equal to prepaid costs is reported in the governmental fund types, since these amounts are not in a spendable form.

OCFA has established a dollar threshold for the review and establishment of prepaid items. Individual invoices and charges greater than or equal to \$5,000 are evaluated for reporting under the consumption method. Individual invoices and charges less than \$5,000 are reported under the “purchase method.” At the discretion of OCFA Finance Division management, exceptions to the \$5,000 threshold may include travel-related items or situations where failing to report a prepaid item under the consumption method may cause an individual division or section to materially exceed its appropriated budget for a given fiscal year.

(g) Capital Assets

Capital assets of governmental activities, which include property, plant, and equipment assets, are reported in the government-wide financial statements. Capital assets are defined by OCFA as assets with an estimated useful life in excess of one year and with an initial, individual cost of \$5,000 or more. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated or developer-contributed capital assets are recorded at estimated acquisition value at the date of donation. The costs of normal maintenance and repairs that do not materially add to the value of the asset or materially extend the asset’s useful life are not capitalized. Major outlays for capital assets and improvements are capitalized as projects are constructed. Capital assets received in a service concession arrangement, if any, are reported at acquisition value. OCFA’s capital assets are depreciated or amortized using the straight-line method over the following estimated useful lives:

Buildings and Improvements	45 years
Equipment	3 – 40 years
Vehicles	4 – 20 years

(h) Deferred Outflows and Inflows of Resources

In addition to assets, the Statement of Net Position of governmental activities and the Balance Sheet of governmental funds may report a separate section for deferred outflows of resources. Deferred outflows of resources represent a consumption of net position or fund balance that apply to future period(s) and so will not be recognized as outflows of resources (expenses or expenditures) during the current fiscal year. OCFA currently reports deferred outflows pertaining to pensions and other postemployment benefits on the Statement of Net Position of governmental activities.

In addition to liabilities, the Statement of Net Position of governmental activities and the Balance Sheet of governmental funds may report a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net position or fund balance that apply to future period(s) and so will not be recognized as inflows of resources (revenues) during the current fiscal year. Unavailable revenue in the governmental funds, which arises under the modified accrual basis of accounting, is currently the only item that qualifies for reporting as a deferred inflow. These amounts will be recognized as an inflow of resources in the period that the amounts become available. OCFA also currently reports deferred inflows pertaining to pensions and other postemployment benefits on the Statement of Net Position of governmental activities.

(i) Compensated Absences

OCFA’s policy permits employees to accumulate earned but unused vacation and sick pay benefits. All vacation pay and unpaid sick leave to which employees are entitled under their respective Memorandums of Understanding (MOU’s) have been accrued when incurred in the government-wide financial statements. A liability for these amounts is reported in governmental funds only if it has matured (for example, as a result of employee resignations or retirements).

(j) Pensions

For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions and pension expense, information about the fiduciary net position of the Orange County Employees Retirement System (OCERS) plan and additions to/deductions from the plan’s fiduciary net position have been determined on the same basis as they are reported by OCERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

(k) Postemployment Benefits Other Than Pensions (OPEB)

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Retiree Medical Plan and additions to/deductions from OCFA's fiduciary net position have been determined on the same basis. For this purpose, OCFA recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value.

(l) Fund Equity

The components of the fund balances of governmental funds reflect the component classifications described below.

- **Nonspendable** fund balance includes amounts that are not in a spendable form, such as prepaid items or supplies inventories, or that are legally or contractually required to remain intact, such as principal endowments.
- **Restricted** fund balance includes amounts that are subject to externally enforceable legal restrictions imposed by outside parties (i.e., creditors, grantors, contributors) or that are imposed by law through constitutional provisions or enabling legislation.
- **Committed** fund balance includes amounts whose use is constrained by specific limitations that the government imposes upon itself, as determined by a formal action of the highest level of decision-making authority. The Board of Directors serves as OCFA's highest level of decision-making authority and has the authority to establish, modify, or rescind a fund balance commitment via a minutes order, which may or may not be documented by a written Board resolution.
- **Assigned** fund balance includes amounts intended to be used by OCFA for specific purposes, subject to change, as established either directly by the Board of Directors or by management officials to whom assignment authority has been delegated by the Board of Directors. OCFA's Board of Directors has established a *Fund Balance Assignment Policy* which establishes the authority by which OCFA may set aside cumulative resources in fund balance for an intended future use. The Board of Directors has the authority to assign fund balance, and has delegated its authority to assign amounts for workers' compensation and the capital improvement program to the Deputy Chief of the Administration & Support Bureau, or his/her designee, in accordance with the parameters outlined in the policy and subject to annual review and concurrence by the Budget and Finance Committee.
- **Unassigned** fund balance is the residual classification that includes spendable amounts in the General Fund that are available for any purpose. The General Fund should be the only fund that reports a positive unassigned fund balance. In other governmental funds, it is not appropriate to report a positive unassigned fund balance amount. However, in governmental funds other than the General Fund, if expenditures incurred for specific purposes exceeded the amounts restricted, committed, or assigned to those purposes, it may be necessary to report a negative unassigned fund balance in that fund.

When expenditures are incurred for purposes for which both restricted and unrestricted (committed, assigned or unassigned) fund balances are available, OCFA's *Flow Assumptions Policy* specifies that restricted revenues will be applied first. When expenditures are incurred for purposes for which committed, assigned, or unassigned fund balances are available, OCFA's policy is to apply committed fund balance first, then assigned fund balance, and finally unassigned fund balance.

(m) Operating Contingency

In June 1998, OCFA established a General Fund Contingency Reserve ("operating contingency"), which was subsequently revised to 10% of budgeted non-grant operating expenditures. OCFA's policy states that the operating contingency be used only for operating contingencies, emergencies caused by calamitous events, and economic uncertainty. The operating contingency's balance is included within the unassigned fund balance category of the General Fund.

(n) Prior Year Data

The information included in the accompanying financial statements for the prior year has been presented for comparison purposes only and does not represent a complete presentation in accordance with generally accepted accounting principles. Certain minor reclassifications of prior year data have been made in order to enhance their comparability with current year figures.

(o) Use of Estimates

The financial statements are prepared in conformity with accounting principles generally accepted in the United States of America and, accordingly, include amounts that are based on management's best estimates and judgments. Actual results could differ from those estimates.

(2) Compliance and Accountability

(a) Budgetary Information

OCFA establishes accounting control through formal adoption of an annual operating budget for its governmental funds. The operating budgets are prepared on a basis consistent with generally accepted accounting principles. Annual appropriated budgets are adopted for all of OCFA's governmental funds.

Perspective differences occur when the framework used for budgeting differs from the fund structure used for financial reporting. OCFA's General Fund consists of five separately budgeted sub-funds that have been combined and consolidated for financial statement presentation. The table below reconciles fund balance for the General Fund as reported on the budgetary basis to the presentation in the financial statements. The Supplementary Schedules section of this report includes additional General Fund combining schedules for balance sheet, budgetary data, and actual operating data for the year ended June 30, 2020.

	<u>Fund Balance as of June 30, 2020</u>
Budgetary basis:	
General Operating Fund	\$ 60,505,432
General Fund Capital Improvement Program (CIP)	6,263,474
Structural Fire Entitlement	1,288,272
Self Insurance	98,998,999
Settlement Agreement	<u>23,532,076</u>
General Fund for financial statement presentation	<u>\$190,588,253</u>

The adopted budget can be amended by the Board to change both appropriations and estimated revenues as unforeseen circumstances come to management's attention. Increases and decreases in revenue and appropriations and transfers between funds require the Board's approval; however, division and section managers, Assistant Chiefs, Directors, and Deputy Chiefs may authorize changes within funds and/or their respective authorized budgets. Expenditures may not exceed total appropriations at the individual fund level. It is the practice of OCFA to review the budgets mid-year and, if necessary, recommend changes to the Board.

(b) Emergency Appropriations Policy

In September 2008, the Board adopted the Emergency Appropriations Policy to provide a means of increasing budgeted appropriations in the event that extraordinary fire or emergency incident activity occurs after the last Board meeting of the fiscal year, which may cause expenditures to exceed the authorized General Fund budget. The contingency appropriation, which may not exceed \$3,000,000 each fiscal year, is established for unforeseen requirements, primarily salary and employee benefits for extraordinary fire or emergency response. No expenditures may be made directly against the contingency appropriations; however, OCFA management may recommend a transfer from the contingency

appropriations to a specific purpose appropriation. The Chair of the Board of Directors or the Vice Chair, in the absence of the Chair, must pre-approve any such transfers. Upon approval by the Chair or Vice Chair, notice of this transfer must be provided immediately to the full Board in writing.

(c) Encumbrance Accounting

Encumbrance accounting is employed in governmental funds. Encumbrances represent commitments related to unperformed contracts for goods or services. Encumbrance accounting, under which purchase orders, contracts, and other commitments for the expenditure of resources are recorded to reserve that portion of the applicable appropriation, is utilized in OCFA's governmental funds. Encumbrances outstanding at year-end are reported as restricted, committed, or assigned fund balance, depending on the type of revenue source associated with the encumbrance, and do not constitute expenditures or liabilities because the commitments will be honored during the subsequent fiscal year. All appropriations lapse at year-end with the exception of encumbered appropriations, which are effectually re-appropriated in the ensuing year's budget.

(3) Implementation of New Accounting Standards

During the year ended June 30, 2020, OCFA early-implemented the following new accounting standard issued by the Governmental Accounting Standards Board (GASB):

- **GASB Statement No. 84 *Fiduciary Activities***, which establishes criteria for identifying fiduciary activities of all state and local governments. The focus on the criteria generally is on whether a government is controlling the assets of the fiduciary activity and the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. No prior period adjustments were made in Fiscal Year 2019/20 with the implementation of GASB Statement No. 84.

(4) Cash and Investments

(a) Financial Statement Presentation

OCFA maintains a cash and investment pool that is available for use for all funds. Each fund's position in the pool is reported on the balance sheet as cash and investments. Pooled investments held in trust with OCERS (presented within the Fiduciary Funds of these financial statements) are reported as of the December 31, 2019 plan year-end date. Additional investment information is provided within these notes as Note 25.

Cash and investments as of June 30, 2020, are reported in the financial statements as follows:

	<u>Statement of Net Position</u>		<u>Statement of Fiduciary Net Position</u>	
	Governmental Activities	Discretely Presented Component Unit (OCFA Foundation)	Fiduciary Funds	Total
Cash and investments	\$187,297,857	\$160,475	\$42,289,889	\$229,748,221
Restricted cash and investments	<u>2,121,417</u>	<u>-</u>	<u>-</u>	<u>2,121,417</u>
Total	<u>\$189,419,274</u>	<u>\$160,475</u>	<u>\$42,289,889</u>	<u>\$231,869,638</u>

Cash and investments consist of the following as of June 30, 2020:

Petty cash / cash on hand	\$ 13,352
Demand deposits	24,129,334
Investments	<u>207,726,952</u>
Total	<u>\$231,869,638</u>

(b) Demand Deposits

At June 30, 2020, the carrying amount of OCFA's demand deposits was \$24,129,334 and the bank balance was \$24,569,316. The \$439,982 difference represents outstanding checks and other reconciling items.

California Government Code requires California banks and savings and loan associations to secure an entity's deposits by pledging government securities with a value of 110% of an entity's deposits. California law also allows financial institutions to secure entity deposits by pledging first trust deed mortgage notes having a value of 150% of an entity's total deposits. The entity's Treasurer may waive the collateral requirement for deposits which are fully insured by the FDIC. The collateral for deposits in federal and state-chartered banks is held in safekeeping by an authorized agent of depository recognized by the State of California Department of Banking. The collateral for deposits with savings and loan associations is generally held in safekeeping by the Federal Home Loan Bank in San Francisco, California as an agent of depository. These securities are physically held in an undivided pool for all California public agency depositors. Under Government Code Section 53655, the placement of securities by a bank or savings and loan association with an "agent of depository" has the effect of perfecting the security interest in the name of the local governmental agency. Accordingly, all collateral held by California agents of depository are considered to be held for, and in the name of, the local government. The OCFA Treasurer may waive the collateral requirement for deposits that are fully insured up to \$250,000 by the FDIC.

(c) Investments Authorized by Government Code and OCFA Investment Policy

The table below identifies investment types that are authorized by OCFA's investment policy and by California Government Code Section 53600 et seq. and Section 5922(d). The table also identifies provisions of the California Government Code (or OCFA's investment policy, if more restrictive) that address interest rate risk, credit risk, and concentration of credit risk. The table, however, does not cover investments of debt proceeds, if any, held by fiscal agent, which are governed by the provisions of debt agreements of OCFA rather than the general provisions of OCFA's investment policy. In addition, this table does not include other investment types that are allowable under the California Government Code but are not specifically authorized by OCFA's investment policy.

Investment Types	Maximum Maturity	Maximum % of Portfolio in Investment Type	Maximum % of Portfolio in Single Issuer
U.S. Treasury obligations	5 years	100%	100%
Federal agency securities	5 years	75% ⁽¹⁾	75% ⁽¹⁾
Bankers' acceptances	180 days	25% ⁽¹⁾	25% ⁽¹⁾
Commercial paper	270 days	15% ⁽¹⁾	15% ⁽¹⁾
Negotiable certificates of deposit	5 years	25% ⁽¹⁾	25% ⁽¹⁾
Repurchase agreements	14 days	15% ⁽¹⁾	15% ⁽¹⁾
Money market mutual funds	n/a	15% ^(1,2)	15% ^(1,2)
Local Agency Investment Fund	n/a	75% ⁽¹⁾	75% ⁽¹⁾

(1) Based on OCFA investment policy requirement, which is more restrictive than state law

(2) No limit on automatic overnight sweep

(d) Local Agency Investment Fund

OCFA is a voluntary participant in the Local Agency Investment Fund (LAIF), which is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California and the Pooled Money Investment Board. The State Treasurer's Office pools these funds with those of other governmental agencies in the State and invests the cash. The fair value of OCFA's investment in this pool, which approximates cost, is reported in the accompanying financial statements based on OCFA's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis and reported as cash equivalents in the Statement of Net Position. Included in LAIF's investment portfolio are collateralized mortgage obligations, mortgage-backed securities, other asset backed securities, and floating rate securities issued by federal agencies, government-sponsored enterprises,

and corporations. Deposits and withdrawals to and from LAIF are made on the basis of \$1 and not at fair value. Accordingly, under the fair value hierarchy, the investment with LAIF is uncategorized.

The Pooled Money Investment Board has established policies, goals, and objectives to make certain that their goal of safety, liquidity, and yield are not jeopardized. The value of OCFA's LAIF deposits as of June 30, 2020, was \$75,368,460 and had a weighted average maturity of 191 days. LAIF is not rated as to credit risk by a nationally recognized statistical rating organization. LAIF is administered by the State Treasurer's Office and audited annually by the Pooled Money Investment Board and the State Controller's Office. Copies of this audit may be obtained from the State Treasurer's Office, 915 Capitol Mall, Sacramento, California 95814.

(e) Internal Revenue Code Section 115 Trust

On May 23, 2019, OCFA's Board of Directors approved the adoption of the Public Agencies Post-Employment Benefits Trust, an Internal Revenue Service (IRS) Section 115 irrevocable trust (115 Trust) as required under the terms of a Settlement Agreement with the City of Irvine. The 115 Trust is administered by Public Agency Retirement Services (PARS) per the terms of an Agreement for Administrative Services (AAS) between OCFA and PARS for the term May 23, 2019 through May 23, 2022. Under the terms of the AAS, PARS holds a private letter ruling from the IRS that assures the tax-exempt status of the investment. OCFA maintains control over the assets in the 115 Trust, which are not comingled with other agencies. PARS has entered into a Public Agencies Post-Employment Benefits Trust Arrangement with U.S. Bank National Association (U.S. Bank) effective November 5, 2014, whereby PARS serves as the Trust Administrator and U.S. Bank serves as the Trustee for a public agency that executes a 115 Trust agreement with PARS. Additional 115 Trust information, including the funding timeline required per OCFA's Settlement Agreement with the City of Irvine, is provided within these notes as Note 15.

(f) GASB Statement No. 72

GASB Statement No. 72, *Fair Value Measurement and Application*, establishes general principles for measuring fair value and standards of accounting and financial reporting for assets and liabilities measured at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. OCFA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. For Level 2 inputs, OCFA's custodian Union Bank uses the services of ICE Data Services to obtain the pricing information. Level 3 inputs are significant unobservable inputs. OCFA has the following fair value measurements as of June 30, 2020:

	Fair Value Hierarchy Level			Total
	Level 1	Level 2	Level 3	
Federal agency securities	\$ -	\$87,994,120	\$ -	\$87,994,120
	\$ -	\$87,994,120	\$ -	87,994,120
Uncategorized investments:				
LAIF				75,368,460
Pooled amounts held in trust with OCERS				42,242,955
Section 115 pension trust				<u>2,121,417</u>
Total				<u>\$207,726,952</u>

U.S. Treasury obligations and federal agency securities are valued using institutional bond quotes. Money market investments that have a remaining maturity at the time of purchase of one year or less and are held by governments other than external investment pools, and investments held by 2a7-like external investment pools, are measured at amortized cost as provided in GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*.

(g) Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required (where applicable) by the California Government Code, OCFA's investment policy, or debt agreements, as well as the actual rating as of year-end for each investment type.

	Minimum Rating Required	Rating at Year-End		
		Aaa	Unrated	Total
Federal agency securities	N/A	\$87,994,120	\$ -	\$87,994,120
LAIF	N/A	-	75,368,460	75,368,460
Pooled amounts held in trust with OCERS	N/A	-	42,242,955	42,242,955
Section 115 pension trust	N/A	-	2,121,417	2,121,417
Total		<u>\$87,994,120</u>	<u>\$119,732,832</u>	<u>\$207,726,952</u>

(h) Custodial Credit Risk

The custodial credit risk for *deposits* is the risk that in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. OCFA's investment policy requires that collateral be held by an independent third party with whom OCFA has a current custodial agreement. The custodial credit risk for *investments* is the risk that in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. OCFA's investment policy requires that all security transactions are conducted on a delivery-versus-payment (DVP) method and that all securities are held by a qualified, third-party custodian, as evidenced by safekeeping receipts. The trust department of OCFA's bank may act as third-party custodian, provided that the custodian agreement is separate from the banking agreement. As of June 30, 2020, none of the OCFA's deposits or investments was exposed to disclosable custodial credit risk.

(i) Concentration of Credit Risk

OCFA's investment policy imposes restrictions for certain types of investments with any one issuer to 15% of the total investment pool with the following exceptions: U.S. Treasury obligations (100%), LAIF (75%), federal agency securities (75%), bankers' acceptances (25%), and negotiable certificates of deposit (25%). With respect to concentration risk as of June 30, 2020, OCFA is in compliance with the investment policy's restrictions. In addition, GASB Statement No. 40 requires a separate disclosure if any single issuer comprises more than 5% of the total investment value (exclusive of amounts held by fiscal agent and OCERS). Investments guaranteed by the U.S. government, mutual funds, and external investment pools are excluded from this requirement. Investments with issuers exceeding 5% of the total investment portfolio at June 30, 2020, are summarized below.

Issuer	Fair Value	% of Portfolio
Federal National Mortgage Association (FNMA)	\$16,016,920	9.8%
Federal Home Loan Bank (FHLB)	\$11,992,320	7.3%
Federal Home Loan Mortgage Corp (Freddie Mac)	\$59,984,880	36.7%

(j) Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the fair values of investments with longer maturities have greater sensitivity to changes in market interest rates. OCFA's investment policy limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. OCFA's investment policy states that at least 50% of the portfolio must mature in one year or less, and 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. OCFA has elected to use the segmented time distribution

method of disclosure for its interest rate risk. As of June 30, 2020, the OCFA had the following investments and maturities:

	Investment Maturities in Months				Total
	6 or Less	7 to 12	13 to 60	N/A	
Federal agency securities	\$71,977,200	\$ -	\$16,016,920	\$ -	\$ 87,994,120
LAIF	-	75,368,460	-	-	75,368,460
Pooled amounts held in trust with OCERS	-	-	-	42,242,955	42,242,955
Section 115 pension trust	-	-	-	2,121,417	2,121,417
Total	<u>\$71,977,200</u>	<u>\$75,368,460</u>	<u>\$16,016,920</u>	<u>\$44,364,372</u>	<u>\$207,726,952</u>

As of June 30, 2020, OCFA's investments included the following callable investments, which are exposed to interest rate risk:

Issuer	Call Date(s)	Yield to Call	Maturity Date	Fair Value
Federal National Mortgage Association (FNMA)	7/24/2020	0.130%	7/24/2023	\$12,012,960
Federal National Mortgage Association (FNMA)	10/20/2020	0.410%	4/20/2023	\$4,003,960

(5) Accounts Receivable, Net

Accounts receivable, net of allowance for doubtful accounts, consists of the following as of June 30, 2020:

	Governmental Funds	Primary Governmental
	General Fund	Activities
Fire prevention and late fees	\$ 144,432	\$ 144,432
Ambulance and other reimbursements	1,730,159	1,730,159
Station 61 fire insurance claim	697,729	697,729
Other/miscellaneous	<u>69,222</u>	<u>69,222</u>
Accounts receivable	2,641,542	2,641,542
Allowance for doubtful accounts	<u>(75,405)</u>	<u>(75,405)</u>
Accounts receivable, net	<u>\$2,566,137</u>	<u>\$2,566,137</u>

(6) Prepaid Costs, Other Assets, and Nonspendable Fund Balance of Governmental Funds

In January 2019, OCFA prepaid a portion of its Fiscal Year 2019/20 retirement contributions to the Orange County Employees Retirement System (OCERS) totaling \$34,814,808. In January 2020, OCFA prepaid a portion of its Fiscal Year 2020/21 retirement contributions to OCERS totaling \$40,488,479. In the governmental funds, the unamortized balance of the January 2019 prepayment totaled \$1,339,031 as of June 30, 2020, due to the timing of the pay period calendar. The entire amount of the January 2020 prepayment was unamortized as of June 30, 2020. In the governmental activities, a portion of Fiscal Year 2020/21 prepaid retirement contributions totaling \$18,687,000 is reported as a deferred outflow of resources related to pensions, since the contributions will reduce the net pension liability with OCERS prior to the Plan's next measurement date. Other prepaid costs and assets as of June 30, 2020, included annual maintenance and support fees, subscriptions, professional memberships, and insurance premiums; and deposits with the third-party administrator of an employee benefit flexible health spending program.

Prepaid costs and other assets consist of the following as of June 30, 2020:

	Governmental Funds		Primary Government
	General Fund	Communications and Information Systems	Governmental Activities
Prepaid costs:			
Retirement contributions:			
Fiscal Year 2020/21	\$40,488,479	\$ -	\$21,801,479
Fiscal Year 2019/20	1,339,031	-	1,339,031
Maintenance and support	526,553	4,247	530,800
Subscriptions and memberships	11,290	-	11,290
Insurance premiums	224,309	-	224,309
Other	<u>110,910</u>	<u>-</u>	<u>110,910</u>
Total prepaid costs	42,700,572	4,247	24,017,819
Other assets:			
Health spending deposits	<u>17,155</u>	<u>-</u>	<u>17,155</u>
Total	<u>\$42,717,727</u>	<u>\$4,247</u>	<u>\$24,034,974</u>

Prepaid costs are reported as an asset until the expenditures are recognized proportionately over the future period in which the services are to be provided. An amount equal to the asset is reported as nonspendable fund balance in the governmental funds, since these amounts are not in a spendable form. As of June 30, 2020, nonspendable fund balance totaled \$42,704,819 and is reported in the General Fund (\$42,700,572) and the Communications and Information Systems Fund (\$4,247).

(7) Due from Other Governments

Amounts due from other governments consist of the following as of June 30, 2020:

	Governmental Funds	Primary Government
	General Fund	Governmental Activities
Fire protection and other services:		
Cash contract cities	\$ 1,530,575	\$ 1,530,575
State responsibility area	<u>1,745,376</u>	<u>1,745,376</u>
Subtotal	3,275,951	3,275,951
Assistance by hire/activation	6,512,904	6,512,904
Grants	1,196,151	1,196,151
Property tax/tax increment	5,701,875	5,701,875
Other/miscellaneous	<u>78,427</u>	<u>78,427</u>
Total	<u>\$16,765,308</u>	<u>\$16,765,308</u>

(8) Capital Assets

(a) Changes in Capital Asset Balances by Asset Class

Capital asset activity for the year ended June 30, 2020, was as follows:

<u>Primary Government/ Governmental Activities</u>	<u>Beginning Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Transfers</u>	<u>Ending Balances</u>
Capital assets not depreciated/amortized:					
Land	\$ 42,757,850	\$ -	\$ -	\$ -	\$ 42,757,850
Construction in progress	294,365	350,579	-	(306,390)	338,554
Work in progress	<u>9,104,582</u>	<u>1,387,590</u>	<u>-</u>	<u>(9,029,627)</u>	<u>1,462,545</u>
Total capital assets not depreciated/amortized	<u>52,156,797</u>	<u>1,738,169</u>	<u>-</u>	<u>(9,336,017)</u>	<u>44,558,949</u>
Capital assets depreciated/amortized:					
Buildings	153,293,703	42,776	(5,800)	306,390	153,637,069
Equipment	65,139,767	3,505,620	(1,052,535)	2,893,443	70,486,295
Vehicles	<u>95,874,855</u>	<u>5,674,199</u>	<u>(4,119,055)</u>	<u>6,136,184</u>	<u>103,566,183</u>
Subtotal	<u>314,308,325</u>	<u>9,222,595</u>	<u>(5,177,390)</u>	<u>9,336,017</u>	<u>327,689,547</u>
Less accumulated depreciation/amortization:					
Buildings	(50,229,264)	(3,384,000)	1,348	-	(53,611,916)
Equipment	(41,993,666)	(3,275,029)	1,041,053	-	(44,227,642)
Vehicles	<u>(55,599,513)</u>	<u>(5,478,470)</u>	<u>3,986,480</u>	<u>-</u>	<u>(57,091,503)</u>
Subtotal	<u>(147,822,443)</u>	<u>(12,137,499)</u>	<u>5,028,881</u>	<u>-</u>	<u>(154,931,061)</u>
Total capital assets depreciated/amortized, net	<u>166,485,882</u>	<u>(2,914,904)</u>	<u>(148,509)</u>	<u>9,336,017</u>	<u>172,758,486</u>
Capital assets, net	<u>\$218,642,679</u>	<u>\$ (1,176,735)</u>	<u>\$ (148,509)</u>	<u>\$ -</u>	<u>\$217,317,435</u>

<u>Component Unit/ OCFA Foundation</u>	<u>Beginning Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Transfers</u>	<u>Ending Balances</u>
Capital assets depreciated/amortized:					
Equipment	\$ 15,979	\$ -	\$ -	\$ -	\$ 15,979
Less accumulated depreciation/amortization:					
Equipment	<u>(1,665)</u>	<u>(799)</u>	<u>-</u>	<u>-</u>	<u>(2,464)</u>
Capital assets, net	<u>\$ 14,314</u>	<u>\$ (799)</u>	<u>-</u>	<u>-</u>	<u>\$ 13,515</u>

(b) Investment in Capital Assets

The portion of net position that is invested in capital assets is calculated as follows:

	Primary Government Governmental Activities	Component Unit OCFA Foundation
Capital assets, net of accumulated depreciation/amortization	<u>\$217,317,435</u>	<u>\$13,515</u>

(c) Depreciation/Amortization Expense

Depreciation/amortization expense in the amounts of \$12,137,499 and \$799 were charged to public safety in the Statement Activities of the primary government and the component unit, respectively.

(9) Unearned and Unavailable Revenue

Revenue amounts that have been collected but are *unearned* are reported as liabilities of both the governmental activities and the governmental funds. Revenue amounts that have been earned but are considered *unavailable* to finance the expenditures of the current fiscal period are reported as deferred inflows of resources of the governmental funds. Unearned and unavailable revenues consist of the following as of June 30, 2020:

	Governmental Funds	Primary Government Governmental Activities
	General Fund	
Unearned revenue:		
FIRIS pilot program cash advance	\$ 568,329	\$ 568,329
Cell tower rent – July 2020	4,023	4,023
Miscellaneous cash advances	<u>1,650</u>	<u>1,650</u>
Total	<u>\$ 574,002</u>	<u>\$ 574,002</u>
Unavailable revenue:		
City of Garden Grove start-up costs	<u>\$1,022,603</u>	
Total	<u>\$1,022,603</u>	

(10) Due to Other Governments

Amounts due to other governments consist of the following as of June 30, 2020:

	Governmental Funds	Primary Government Governmental Activities
	General Fund	
Pass-through payments for activations and exercises:		
City of Anaheim	\$ 34,452	\$ 34,452
City of Orange	40,041	40,041
Grant overpayment:		
Federal Emergency Management Agency	30,232	30,232
Miscellaneous refunds	<u>1,312</u>	<u>1,312</u>
Total	<u>\$106,037</u>	<u>\$106,037</u>

(11) Fund Balance of Governmental Funds – Restricted

Restricted fund balance consists of the following as of June 30, 2020:

Description	Governmental Funds		
	General Fund	Fire Stations and Facilities	Total
Capital improvement program	\$ -	\$391,477	\$ 391,477
Various departments	4,148,316	-	4,148,316
Section 115 pension trust	<u>2,120,383</u>	<u>-</u>	<u>2,120,383</u>
Total	<u>\$6,268,699</u>	<u>\$391,477</u>	<u>\$6,660,176</u>

Type/Source of Restriction	General Fund	Fire Stations and Facilities	Total
Encumbrances	\$1,836,756	\$ -	\$1,836,756
CalFire drought augmentation funding	956,880	-	956,880
CalFire greenhouse gas reduction funding	1,354,680	-	1,354,680
CalFire contract revenues	-	391,477	391,477
Section 115 pension trust	<u>2,120,383</u>	<u>-</u>	<u>2,120,383</u>
Total	<u>\$6,268,699</u>	<u>\$391,477</u>	<u>\$6,660,176</u>

Restricted fund balance in the General Fund includes grant-funded or other restricted, unexpended encumbrances outstanding at year-end; unencumbered CalFire funding restricted for drought augmentation and greenhouse gas reduction activities; and amounts set aside in a Section 115 trust for pension obligations. Restricted fund balance in the Fire Stations and Facilities Fund includes CalFire contract revenues that are legally restricted for new fire station development or improvements to existing fire stations, including related encumbrances that are outstanding at year-end.

(12) Fund Balance of Governmental Funds – Committed

In July 1999, the Board of Directors authorized that \$4,405,086 be set aside to fund OCFA-related service or resource enhancement projects in certain structural fire fund member agencies. In January 2012 and November 2017, the Board of Directors authorized an additional \$622,106 and \$1,000,000, respectively, to be set aside for the same purpose. As of June 30, 2020, the remaining unspent amount, plus accrued interest earnings, totaling \$1,288,272 was reported as a fund balance commitment in the General Fund. The funds are committed for projects in the following member agencies:

Member Agency	Governmental Funds
	General Fund
County of Orange	\$ 62,719
Dana Point	58,857
Irvine	1,019,506
Laguna Niguel	102,304
Lake Forest	20,660
Rancho Santa Margarita	15,998
San Juan Capistrano	953
Villa Park	<u>7,275</u>
Total	<u>\$1,288,272</u>

(13) Fund Balance of Governmental Funds – Assigned

Assigned fund balance includes the following as of June 30, 2020:

Capital Improvement Program	\$ 32,017,913
Workers' compensation	98,998,999
Assigned, unexpended encumbrances	<u>17,411,507</u>
Total	<u>\$148,428,419</u>

The Board of Directors has established a *Fund Balance Assignment Policy* authorizing the assignment of fund balance to the Capital Improvement Program and self-insured workers' compensation claims.

- The assignment to the Capital Improvement Program reflects cumulative amounts transferred from the General Fund to the capital projects funds, net of actual cumulative project expenditures and other revenue sources accounted for in those funds. The assignment may also include net resources accumulated within the General Fund itself to fund purchases and projects that are capital in nature but do not necessarily meet the criteria to be reported in one of OCFA's capital projects funds. The assignment may not exceed the net cost of future identifiable projects. Fund balance assigned for the Capital Improvement Program totaled \$32,017,913 as of June 30, 2020, and is reported in the General Fund (\$5,123,124), Communications and Information Systems Fund (\$6,121,588), Fire Apparatus Fund (\$4,149,456) and Fire Stations and Facilities Fund (\$16,623,745).
- The assignment to workers' compensation reflects the cumulative difference between actual workers' compensation expenditures incurred and budgeted costs, which are based on an annual actuarial valuation prepared by an external actuary and a confidence level set by the Board of Directors. The assignment for workers' compensation is reported in the General Fund and totaled \$98,998,999 as of June 30, 2020.

Assigned fund balance pertaining to unexpended encumbrances outstanding as of June 30, 2020, totaled \$17,411,507 and is summarized below for each governmental fund:

Purpose of Encumbrance	Communications and Information Systems	Fire Apparatus	Fire Stations and Facilities
	Communications/ IT Projects	Fire Apparatus and Vehicles	Construction Projects
Type 1 engines	\$ -	\$ 8,830,210	\$ -
Type 3 engines	-	1,629,096	-
100' tractor drawn aerial	-	1,259,743	-
Water tenders	-	881,980	-
Air utility support vehicle	-	611,628	-
RFOTC training ground improvements	-	-	580,609
Foam tender	-	537,205	-
Trucks, sport utility vehicles, and vans	-	542,050	-
Hazmat support vehicle	-	451,165	-
Other vehicles, outfitting, and improvements	-	97,996	-
Next Generation CAD2CAD project	38,015	-	-
800 MHz radio project	35,579	-	-
Enterprise audio visual upgrade	28,939	-	-
Station No. 10 (Yorba Linda) replacement	-	-	16,255
Station No. 49 (Laguna Niguel) apparatus bay floor repair	-	-	15,840
Data Center fire suppression system	<u>545</u>	<u>-</u>	<u>-</u>
Total	<u>\$103,078</u>	<u>\$14,841,073</u>	<u>\$612,704</u>

Purpose of Encumbrance	General Fund				
	Various Departments	Facilities Projects	Communications/ IT Projects	Construction Projects	Total
Station bathroom gender compliance projects	\$ -	\$ -	\$ -	\$398,258	\$ 398,258
Station phone, alarm, sound systems	-	-	304,501	-	304,501
Service Center stock items	162,825	-	-	-	162,825
Station dorm privacy projects	-	-	-	150,336	150,336
COVID-19 pandemic	141,523	-	-	-	141,523
Station No. 41 (Air Operations) projects to accommodate 24/7 operations	-	-	-	112,300	112,300
Service level assessment	45,766	-	-	-	45,766
Probationary firefighter manipulative test	42,800	-	-	-	42,800
Station No. 26 (Irvine) shower remodel	-	11,383	-	-	11,383
Other	<u>346,486</u>	<u>72,185</u>	<u>54,643</u>	<u>11,646</u>	<u>484,960</u>
Total	<u>\$739,400</u>	<u>\$83,568</u>	<u>\$359,144</u>	<u>\$672,540</u>	<u>\$1,854,652</u>

(14) Fund Balance of Governmental Funds – Unassigned

Unassigned fund balance in the General Fund consists of the following as of June 30, 2020:

10% Operating Contingency	\$34,353,935
All other residual amounts available for any purpose	-
Total	<u>\$34,353,935</u>

The total amount of the 10% Operating Contingency calculation was \$38,709,546 as of June 30, 2020, which exceeded the General Fund's total unassigned fund balance by \$4,355,611.

(15) Commitments and Contingencies

(a) Settlement Agreement

Effective March 28, 2019, OCFA and Irvine entered into a Settlement Agreement, which was amended December 4, 2019, to provide the following provisions benefiting the citizens of Orange County and enhancing services provided throughout OCFA's jurisdiction:

- **Joint Police-Fire Training Facility** – Irvine will plan, develop, construct, operate, and maintain a joint training center, which will include a joint emergency operations center (collectively the Joint Training Facility) for use by the City and OCFA for no less than fifty years from completion of the facility's construction. Irvine will contribute the land and will operate and maintain the real property that comprises the Joint Training Facility. In exchange for its use, OCFA will contribute \$20,500,000 to be used by Irvine toward the Joint Training Facility's design, construction, furnishing, and the provision of fixtures or equipment for facilities. Upon Irvine's execution of design contracts, OCFA will pay Irvine \$1,000,000 for the exclusive use of making payments on the design contracts and for other expenses relating to the design of the Joint Training Facility as mutually agreed upon by Irvine and OCFA. Upon Irvine's execution of a construction contract, OCFA will pay Irvine additional amounts as follows: (1) a combined \$19,500,000 for the construction, furniture, fixtures, and equipment of the training center (\$18,500,000) and the emergency operations center (\$1,000,000); and (2) the cost of any facility enhancements OCFA requested during the design process that would cause OCFA's total financial contributions to collectively exceed \$20,500,000.

- **Drone Program** – Irvine will establish and operate a program under which Irvine personnel will use drones to monitor open space areas in Irvine. Drones will be available to OCFA upon request to monitor open space or active fires or other hazards and disasters throughout OCFA’s jurisdictional boundaries. Irvine must certify on or prior to July 1, 2019, that it has established and budgeted for the Drone Program, including anticipated costs of personnel, equipment, space, and other direct costs, totaling at least \$500,000 per year. OCFA will pay Irvine \$500,000 annually on July 15 beginning July 15, 2019, and ending July 15, 2029. If Irvine has not provided the annual certification of program and budget as previously described by June 1 of any year, then OCFA’s annual payment will not be due until thirty days after such certification is provided. On or prior to May 1 each fiscal year beginning May 1, 2020, and ending May 1, 2030, Irvine will certify to OCFA the actual fiscal year-to-date costs incurred and anticipated costs to be incurred prior to the close of the fiscal year. If those costs are less than OCFA’s annual \$500,000 payment, the difference will be deducted from OCFA’s subsequent year payment. OCFA’s expenditures for Fiscal Year 2019/20 totaled \$500,000.
- **Bi-Directional Amplifiers** – OCFA will reimburse Irvine \$500,000 for the purchase and installation of bi-directional amplifiers at nine locations within Irvine’s municipal boundaries. Reimbursement payments will be made upon documentation that the amplifiers are installed and operating.
- **OCFA Training of Irvine Police Department (IPD) Emergency Medical Technicians (EMT)** – OCFA personnel will provide IPD personnel with EMT training at a cost to OCFA of \$50,000 per fiscal year through June 30, 2030. Training will be provided as requested by IPD personnel and unused training sessions will not carry over to future fiscal years. OCFA’s obligation to provide EMT training commences on the latter of July 1, 2019, and the date IPD identifies personnel that are either specifically employed to serve as EMT’s for Irvine or that have EMT functions integrated into their job duties.
- **Public Safety Community Emergency Response Team (CERT) Coordinator** – OCFA will pay Irvine \$118,000 per fiscal year toward the cost of one Irvine-employed, full-time CERT Coordinator. Irvine must certify on or prior to July 1, 2019, that it has established and budgeted for a CERT Coordinator position, including anticipated costs of salary, benefit, and other direct costs, totaling at least \$118,000 per year. OCFA will pay Irvine \$118,000 annually on July 15 beginning July 15, 2019, and ending July 15, 2029. If Irvine has not provided the certification of program and budget as previously described by June 1, 2019, then the first payment will not be due to Irvine until thirty days after such certification is provided. On or prior to May 1 each fiscal year beginning May 1, 2020, and ending May 1, 2030, Irvine will certify to OCFA the actual fiscal year-to-date costs incurred and anticipated costs to be incurred prior to the close of the fiscal year. If those costs are less than OCFA’s annual \$118,000 payment, the difference will be deducted from OCFA’s subsequent year payment. OCFA’s expenditures for Fiscal Year 2019/20 totaled \$118,000.
- **Pension Funding Annual Deposits to 115 Trust** – OCFA will pay \$2,000,000 per year into an Internal Revenue Code Section 115 Trust (115 Trust) to be established with the Public Agency Retirement Services (PARS), the Orange County Employees Retirement System (OCERS), or another mutually-agreed upon administrator (Trust Administrator). On or prior to July 1, 2019, OCFA will establish the 115 Trust with the Trust Administrator. The annual \$2,000,000 115 Trust payment will be due on July 15 of each fiscal year beginning July 15, 2019, and ending July 15, 2029; however, if OCFA has not funded 85% of its pension liability as determined by OCERS by June 30, 2020, then the required 115 Trust payment will be reduced to \$1,500,000 per fiscal year until OCFA achieves the targeted 85% funding level. The \$500,000 reduction will instead be contributed to OCERS as an additional employer pension contribution. The first 115 Trust payment due on July 15, 2019, will not be reduced even if the 85% target funding has not been achieved. Sub-accounts will be established within the 115 Trust to attribute on a pro-rata basis portions of each payment to Structural Fire Fund members whose revenues were greater than the cost of providing fire services during the prior fiscal year. If OCFA is dissolved in the manner described in California Government Code Section 6508.2, then as part of the dissolution process OCFA will apportion retirement liabilities among all of its member agencies. The amounts deposited into the 115 Trust and attributed by sub-accounts will not be utilized in making this apportionment calculation. Upon completion of the apportionment calculation, the 115 Trust will be liquidated and the amounts used toward the satisfaction of the portion of liability assigned to such 115 Trust contributing members through the apportionment calculation. OCFA remitted payment(s) to the 115 Trust totaling \$2,000,000 during Fiscal Year 2019/20.

OCFA's remaining financial commitment as of June 30, 2020, under the various provisions of the Settlement Agreement totals approximately \$47,730,000 over the ten-year period July 1, 2020, through June 30, 2030, as summarized in the table below.

Settlement Agreement Service Enhancement	OCFA Financial Commitment	
	Ongoing Annual Costs	One-Time Costs
Joint Police-Fire Training Facility and Emergency Operations Center	\$ -	\$20,500,000
Drone Program	500,000	-
Bidirectional Amplifiers	-	500,000
OCFA Training of Irvine Police Department Emergency Medical Technicians	50,000	-
Public Safety Community Emergency Response Team (CERT) Coordinator	118,000	-
Pension Funding Annual Deposits to 115 Trust	<u>2,000,000</u>	<u>-</u>
Total original financial commitment	<u>\$ 2,668,000</u>	<u>\$21,000,000</u>
Total remaining OCFA financial commitment over ten fiscal years (Fiscal Year 2020/21 through Fiscal Year 2029/30)	\$26,680,000	\$21,000,000

(b) Commitments for Outstanding Encumbrances

As of June 30, 2020, commitments with vendors for outstanding encumbrances (unperformed purchase orders and contracts for goods and services) by major governmental fund are as follows:

General Fund	\$ 3,691,408
Communications and Information Systems	103,078
Fire Apparatus	14,841,073
Fire Stations and Facilities	<u>612,704</u>
Total outstanding encumbrances	<u>\$19,248,263</u>

Significant individual commitments with vendors as of June 30, 2020, are identified below.

Fund / Vendor	Description	Original Commitment	Spent-to-Date	Remaining Commitment
<u>General Fund:</u>				
Boise Mobile Equipment	(2) Crew carrier vehicles	\$ 606,664	\$ -	\$ 606,664
Boise Mobile Equipment	(2) Crew carrier vehicles	606,664	-	606,664
Griffin Structures, Inc.	Project and construction management services for bathroom gender compliance and dorm privacy projects	285,000	10,657	274,343
Gillis + Panichapan Architects	Pre-construction architectural and engineering support for station renovation projects	274,250	-	274,250
Boise Mobile Equipment	Heavy duty service truck	208,060	-	208,060
BOA Architecture	Planning, design, and construction support for Station No. 41 (Air Operations) projects	129,600	17,300	112,300

Communications and Information Systems:

Safariland, LLC	Hazmat radio interface device	35,579	-	35,579
Dell Marketing, L.P.	Audio visual hardware	25,123	-	25,123

Fire Apparatus:

KME Fire Apparatus	(13) Type 1 engines	8,830,210	-	8,830,210
KME Fire Apparatus	(3) Type 3 engines	1,629,096	-	1,629,096
KME Fire Apparatus	(1) 100' tractor drawn aerial	1,259,743	-	1,259,743
KME Fire Apparatus	(2) Water tenders	881,980	-	881,980

Fire Stations and Facilities:

RSSE Structural Engineers, Inc.	Planning, design, and construction project management for RFOTC training grounds tower project	790,855	212,955	577,900
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(16) Interfund Transfers

Interfund transfers are used to move revenues from the fund required by statute or budget to collect them to the fund required by statute or budget to expend them. Interfund transfers for the year ended June 30, 2020, are as follows:

Fund	Transfers In	Transfers Out
Fire Apparatus	\$8,000,000	\$ -
Fire Stations and Facilities	-	8,000,000
Total	<u>\$8,000,000</u>	<u>\$8,000,000</u>

Transfers totaling \$8,000,000 were made from the Fire Stations and Facilities fund to the Fire Apparatus fund for current and future capital improvement projects identified in the Capital Improvement Plan.

(17) Lessor in Operating Lease Agreements

On March 24, 2011, OCFA entered into a Wireless Communications Facilities Site Lease with Vista Towers, LLC (Vista), to provide space at the OCFA-owned Regional Fire Operations and Training Center to install and operate a digital mobile radio communications site consisting of up to two wireless communication towers, equipment shelters, and cabinets, for up to six cell phone carriers. In July 2015, the Board of Directors approved Vista's request to assign its interest in the lease to SBA Towers VI, LLC (SBA). SBA assumed the payment terms of the original agreement, and is responsible for the installation, construction, maintenance, repairs, replacement, and operations of the towers and, if applicable, the removal of the towers upon termination of the lease.

The lease term commenced on the earlier of the pulling of all permits necessary for construction, or September 24, 2012, and continues for five years from that date. The lease may be renewed for up to four consecutive five-year increments, for a total of twenty-five years. Rent is due the first of each month and is determined based on the number of carriers being occupied by each of the towers. Base rent, which automatically increases by 3% annually, is \$1,250 for each month in which there is one or no carrier on one of the towers, and \$1,000 per month for each additional carrier occupied on each tower beyond the first carrier. OCFA began collecting base rent commencing July 15, 2012, with rent for a second and third carrier commencing in June and October 2013, respectively. Rental revenue totaled \$47,480 for Fiscal Year 2019/20.

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Future lease payments through the July 14, 2022, renewal period are as follows:

<u>Fiscal Year</u>	<u>Carriers 1-3</u>
2020/21	\$ 48,961
2021/22	50,425
2022/23	<u>4,305</u>
Total	<u>\$103,691</u>

(18) Lessee in Operating Lease Agreements

OCFA is obligated under operating lease agreements as follows:

- On June 14, 2010, OCFA entered into a land lease agreement with the City of Fullerton for a new space at Fullerton Municipal Airport. Monthly lease payments of \$2,886 for the eastern half of the building commenced January 2011. An additional monthly lease payment of \$2,070 for the western half of the building commenced July 2013. Total monthly rent will increase annually by an amount equal to the change in the consumer price index, from a minimum of 3% to a maximum of 5%. The term of the agreement extends forty years through December 2050, with a fifteen-year extension option through December 2065. Fiscal Year 2019/20 rent expenditures totaled \$77,862.
- On August 25, 2011, the OCFA Executive Committee approved the execution of a Lease Agreement with FW Aviation, LLC for a training tower at Fire Station No. 41 Air Operations and Maintenance Facility at Fullerton Airport, which includes a helicopter training prop, an additional restroom, and approximately 600 square feet of classroom/storage area. The lease term is for ten years commencing September 2011, with an optional ten-year extension. Initial monthly rent of \$1,575 increases by \$18 each year. Fiscal Year 2019/20 rent expenditures totaled \$20,574.

Future minimum lease payments for the OCFA's operating lease obligations are as follows:

<u>Fiscal Year(s)</u>	<u>Airport Land Lease</u>	<u>Airport Training Tower</u>	<u>Total</u>
2020/21	\$ 80,148	\$20,808	\$ 100,956
2021/22	82,560	3,474	86,034
2022/23	85,032	-	85,032
2023/24	87,588	-	87,588
2024/25	90,216	-	90,216
2025/26 - 2029/30	493,272	-	493,272
2030/31 - 2034/35	571,752	-	571,752
2035/36 - 2039/40	662,748	-	662,748
2040/41 - 2044/45	768,360	-	768,360
2045/46 - 2049/50	890,700	-	890,700
2050/51 - 2054/55	<u>97,242</u>	<u>-</u>	<u>97,242</u>
Total	<u>\$3,909,618</u>	<u>\$24,282</u>	<u>\$3,933,900</u>

(19) Changes in Long-term Liabilities

Long-term liability activity for the year ended June 30, 2020, is summarized in the table below. All long-term liabilities are normally liquidated by the General Fund.

Primary Government/ Governmental Activities	Beginning Balances	Additions	Deletions	Ending Balances	Due Within One Year
Net pension liability:					
OCERS pension plan	\$466,731,526	\$ -	\$(112,336,069)	\$354,395,457	\$ -
Extra Help pension plan	<u>113,591</u>	<u>-</u>	<u>(37,740)</u>	<u>75,851</u>	<u>-</u>
	466,845,117	-	(112,373,809)	354,471,308	-
Net OPEB liability	219,437,807	31,614,382	(6,087,926)	244,964,263	-
Accrued claims and judgments – workers’ compensation	86,616,986	29,668,931	(12,340,122)	103,945,795	14,808,917
Compensated absences	<u>17,787,731</u>	<u>15,740,223</u>	<u>(14,004,871)</u>	<u>19,523,083</u>	<u>4,486,981</u>
Total	<u>\$790,687,641</u>	<u>\$77,023,536</u>	<u>\$(144,806,728)</u>	<u>\$722,904,449</u>	<u>\$19,295,898</u>

(20) Compensated Absences

OCFA is obligated to its employees for accumulated earned but unused leave benefits as of June 30, 2020. Sick leave includes only those amounts that OCFA is obligated to reimburse employees at the end of their active service life. Leave balances by employee type are as follows as of June 30, 2020:

	Vacation	Comp/Other	Sick Leave	Total
Safety Members	\$11,952,612	\$204,495	\$ 2,335,959	\$14,493,066
General Members	<u>2,530,569</u>	<u>570,571</u>	<u>1,928,877</u>	<u>5,030,017</u>
Total	<u>\$14,483,181</u>	<u>\$775,066</u>	<u>\$4,264,836</u>	<u>\$19,523,083</u>

(21) Insurance and Accrued Claims and Judgments

(a) Insurance Coverage Limits

OCFA has purchased commercial insurance coverage for general and auto liabilities, and excess coverage for the self-insured workers compensation. Coverage limits for Fiscal Year 2019/20 included the following:

Notable Exposure Data:

Total Insured Values	\$338,987,526
Total Fleet Values	\$109,339,909

Liability Limits:

Each Occurrence or Wrongful Act	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Fire Damage Legal Liability	\$1,000,000
Medical Expense (each accident)	\$10,000
General Aggregate	\$10,000,000
Products/Completed Operations Annual Aggregate	\$10,000,000
Umbrella Liability	\$10,000,000
Management Liability (Employment Practices; D&O)	\$1,000,000
Cyber Liability (Claims Made)	\$1,000,000
Auto Liability (Combined Single Limit)	\$1,000,000
Garage Keepers Legal Liability	\$500,000
Excess Workers Compensation	Statutory Limits

Property Limits:	
Buildings and Contents	Not to Exceed Scheduled Value on File
Crime (Employee Dishonesty Coverage)	\$1,000,000
Deductibles:	
Management Liability	\$7,500
Auto (Comp and Collision)	\$5,000 (Emergency Vehicles); \$1,000 (Private Passenger)
Garage Keepers	\$250 (Comprehensive); \$500 (Collision)
Property	\$5,000
Crime	\$1,000

There have been no significant changes in insurance coverage as compared to last year. Settlements have not exceeded coverage in each of the past three fiscal years, except as follows:

- OCFA's insurance policy limits for personal property and tools are \$50,000 and \$25,000, respectively. During Fiscal Year 2017/18, OCFA was reimbursed \$75,000 (policy maximum) for employee-owned personal property and tools that were lost in a fire at Station No. 61 in January 2017. As of June 30, 2020, the estimated loss for personal property and tools totaled \$194,000, all of which has been reimbursed by OCFA directly to its employees. Claims for this portion of the policy have exceeded insurance coverage by approximately \$119,000.

(b) Workers' Compensation Self-Insurance

OCFA transitioned its program for workers' compensation insurance from Guaranteed Cost to Self-Insurance effective March 1, 2002. OCFA's self-insurance program covers workers' compensation claims up to \$50,000,000, subject to a \$2,000,000 self-insured retention (SIR) per incident. Workers' compensation claims in excess of the self-insured level are insured by the California State Association of Counties Excess Insurance Authority (CSAC-EIA) at statutory limits. OCFA utilizes the services of a third-party claims administrator for administration of workers' compensation claims.

As of June 30, 2020, accrued claims and judgments for workers' compensation totaled \$103,945,795 and were recorded as a long-term liability in the government-wide financial statements. This liability reflects the present value of estimated outstanding losses at the 50% confidence level, as determined by an actuarial valuation dated December 31, 2019, and includes claims that have been incurred but not yet reported (IBNR's). A confidence level is the statistical certainty that an actuary believes funding will be sufficient. For example, a 50% confidence level means that the actuary believes funding will be sufficient in five years out of ten. On May 27, 2010, the Board of Directors authorized to change the OCFA's confidence level from 80% to 50%. Changes in accrued claims and judgments relating to workers' compensation self-insurance for the years ended June 30, 2020 and 2019, are as follows:

Primary Government/ Governmental Activities	Fiscal Year Ended	
	June 30, 2020	June 30, 2019
Unpaid claims at beginning of fiscal year	\$ 86,616,986	\$73,331,644
Incurred claims (including IBNR's)	29,668,931	25,246,649
Claim payments	<u>(12,340,122)</u>	<u>(11,961,307)</u>
Unpaid claims at end of fiscal year	<u>\$103,945,795</u>	<u>\$86,616,986</u>
Due within one year	\$ 14,808,917	\$14,128,312
Due in more than one year	<u>89,136,878</u>	<u>72,488,674</u>
Unpaid claims at end of fiscal year	<u>\$103,945,795</u>	<u>\$86,616,986</u>
Confidence level at end of fiscal year	50%	50%
Discount rate	1%	1%

Because of the long-term nature of this liability, it is excluded from the OCFA's governmental fund financial statements under the modified accrual basis of accounting. However, OCFA has established a fund balance assignment for workers' compensation in the General Fund in the amount of \$98,998,999. This assignment reflects the cumulative difference for multiple years between actual expenditures and budgeted costs, which are based on the annual actuarial valuation.

Actual expenditures for workers' compensation cases often occur over multiple years, attributing to the cumulative difference between budgeted costs and expenditures.

(22) Pension Plans and Other Postemployment Benefits (OPEB)

OCFA participates in two defined benefit pension plans that are administered through a trust or equivalent arrangement. Additional plan information is provided within these notes as Note 23 and Note 24. OCFA also provides other postemployment benefits (OPEB) through the Retiree Medical Plan. Additional plan information is provided within these notes as Note 25. Following is a summary of plan balances as of and for the year ended June 30, 2020:

Description	Net Pension/ OPEB Liability	Deferred Outflows of Resources Related to Pensions/ OPEB	Deferred Inflows of Resources Related to Pensions/ OPEB	Pension/ OPEB Expense (Credit)
OCERS Pension Plan	\$354,395,457	\$112,123,798	\$ 97,996,328	\$67,124,196
Extra Help Pension Plan	75,851	874	-	(31,130)
Subtotal	354,471,308	112,124,672	97,996,328	67,093,066
OPEB	244,964,263	15,297,531	14,274,883	3,616,673
Total	<u>\$599,435,571</u>	<u>\$127,422,203</u>	<u>\$112,271,211</u>	<u>\$70,709,739</u>

(23) Retirement Plan for Full-Time Employees

(a) General Information about the Plan

Plan Description and Administration

OCFA participates in the Orange County Employees Retirement System (OCERS), a cost-sharing multiple-employer, defined benefit pension plan for the County of Orange, the City of San Juan Capistrano, and thirteen other agencies – Orange County Cemetery District; Orange County Children and Families Commission; Orange County Department of Education; Orange County Employees Retirement System; Orange County Fire Authority (OCFA); Orange County In-Home Supportive Services Public Authority; Orange County Local Agency Formation Commission; Orange County Public Law Library; Orange County Sanitation District; Superior Court of California; Orange County Transportation Authority; Transportation Corridor Agencies; and the University of California, Irvine Medical Center and Campus. The Orange County Department of Education and the University of California, Irvine Medical Center and Campus are closed to new member participation and only the latter has remaining active employees. Capistrano Beach, Cypress Recreation & Parks District, Orange County Vector Control District, and the City of Rancho Santa Margarita are no longer active plan sponsors, but retired members and their beneficiaries, as well as deferred members, remain in the OCERS system. OCERS is legally and fiscally independent of the County of Orange.

OCERS was established in 1945 under the provisions of the County Employees Retirement Law of 1937. OCERS is governed by a ten-member Board of Retirement, including nine voting members and one alternate member. Board membership consists of four members appointed by the County of Orange Board of Supervisors and five members elected by the members of the pension system – two by the general members, two by the safety members (one voting and one alternate), and one by the retired members. The County of Orange Treasurer-Tax Collector, who is elected by the voters registered in the county, serves as an ex-officio member. The OCERS Board of Retirement is responsible for establishing policies governing the administration of the retirement plan; making disability determinations; assuring benefit payments; establishing investment policy for the retirement system; and monitoring execution of its policies. OCERS issues a publicly available financial report that includes financial statements and required supplementary information for the cost-sharing plans that are administered by OCERS. The report can be obtained from OCERS at 2223 Wellington Avenue, Santa Ana, California 92701.

Benefits Provided

OCERS provides retirement, disability, and death benefits to safety and general members. Safety membership includes those members serving in active law enforcement, fire suppression, and as probation officers. General membership

applies to all other occupations. Plan retirement benefits are tiered based upon date of OCERS membership. Tier I members were hired prior to September 21, 1979, and use their highest one-year average salary to determine their retirement allowance. Tier II members were hired on or after September 21, 1979, and use their highest three-year average salary to determine their retirement allowance. Member rate groups are determined by employer, bargaining unit, and benefit plan. The benefit plan represents the benefit formula and tier that will be used in calculating a retirement benefit. All regular employees scheduled to work twenty hours or more per week become members of the plan upon commencing employment with one of OCERS' plan sponsors, with the exception of a provision adopted in 2014 that allows new members over the age of 65 to opt out of the plan. Active members are vested in OCERS upon accumulating five years of accredited service or attaining the age of 70.

On September 12, 2012, California Governor Brown signed Assembly Bill 340, which created the California Public Employees' Pension Reform Act of 2012 (PEPRA) and amended sections of the 1937 Act under which OCERS operates. The law created a benefit tier for new employees entering public agency employment and public retirement system membership, effective January 1, 2013. One of the many changes brought about by PEPRA involved new retirement formulas for newly hired employees who do not establish reciprocity with OCERS. Another change brought about by PEPRA requires employees who do not establish reciprocity to pay 50% of the normal retirement costs from the beginning of their employment.

In general, the retirement benefits received by members are determined by plan formula, age at retirement, years of service, and final average salary. Members are entitled to receive a retirement allowance upon reaching the following years of service and age criteria:

Years of Service Credit	Eligible Age
10 or more	Age 50
5 or more (PEPRA Members)	Age 50
30 or more (General Members)	Any age
20 or more (Safety Members)	Any age
5 or more, and at least 10 years of active employment with a sponsoring agency covered by OCERS (Part-time Members)	Age 55
Any	Age 70

Retired member monthly allowances are adjusted annually in accordance with changes in the cost-of-living, as determined by the average annual change in the Consumer Price Index (CPI) for the prior calendar year. The cost-of-living adjustment is limited to a maximum increase or decrease of three percent per year as established by the OCERS Board of Retirement.

The OCFA's Board establishes and amends benefit plan formulas for active OCFA members through negotiations with its labor bargaining units. The provisions and benefits provided by OCFA to its safety and general members as of June 30, 2020, are summarized below:

Benefits Provided to Safety Members					
Plan	Tier	Benefit Formula	Representation / Bargaining Unit / Employee Hire Date		
			Orange County Professional Firefighters Association	Orange County Fire Authority Chief Officers Association	Unrepresented
			Firefighter Unit	Fire Management Unit	Executive Management in Safety Positions
E	I	3.0% at 50	Prior to 7/1/2012	Prior to 7/1/2012	Prior to 7/1/2011
F	II	3.0% at 50	Prior to 7/1/2012	Prior to 7/1/2012	Prior to 7/1/2011
R	II	3.0% at 55	On or After 7/1/2012 (with reciprocity)	On or After 7/1/2012 (with reciprocity)	On or After 7/1/2011 (with reciprocity)
V	II	2.7% at 57 (PEPRA)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)

Benefits Provided to General Members					
Plan	Tier	Benefit Formula	Representation / Bargaining Unit / Employee Hire Date		
			Orange County Employees Association	Orange County Fire Authority Managers Association	Unrepresented
			General and Supervisory Management	Administrative Management	Executive Management in General Positions
I	I	2.7% at 55	Prior to 7/1/2011	Prior to 12/1/2012	Prior to 12/1/2012
J	II	2.7% at 55	Prior to 7/1/2011	Prior to 12/1/2012	Prior to 12/1/2012
N	II	2.0% at 55	On or After 7/1/2011 (with reciprocity)	On or After 12/1/2012 (with reciprocity)	On or After 12/1/2012 (with reciprocity)
U	II	2.5% at 67 (PEPRA)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)

Contributions

Each year, an actuarial valuation is performed for OCERS to determine funding contributions for each agency member within their assigned rate group and plan on an actuarial basis. The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year, with an additional amount to finance any unfunded actuarial accrued liability (UAAL). The table below summarizes OCFA's required employer contribution rates and employee rates (paid by OCFA) for the year ended June 30, 2020:

Category	Plan	Tier	Benefit Formula	Employer Contribution Rates			Employee Contribution Rates (See Below)
				Normal Cost	UAAL	Total	
Safety	E	I	3.0% at 50	27.24%	20.80%	48.04%	11.11% - 14.95%
Safety	F	II	3.0% at 50	27.24%	20.80%	48.04%	15.01% - 21.22%
Safety	R	II	3.0% at 55	21.97%	20.80%	42.77%	14.21% - 20.08%
Safety	V	II	2.7% at 57 (PEPRA)	15.44%	20.80%	36.24%	13.13% - 20.64%
General	I	I	2.7% at 55	14.72%	15.74%	30.46%	10.51% - 16.61%
General	J	II	2.7% at 55	14.72%	15.74%	30.46%	10.06% - 16.61%
General	N	II	2.0% at 55	13.46%	15.74%	29.20%	7.67% - 13.72%
General	U	II	2.5% at 67 (PEPRA)	10.41%	15.74%	26.15%	8.30% - 14.96%

Employees in each unit have agreed through their respective Memorandums of Understanding or Personnel and Salary Resolution to pay their full employee share of retirement costs, with those employee payments being phased in over three to four years. The retirement payment is deducted from the employee's compensation earnable and continues throughout the employee's entire term of employment with OCFA. Employee contribution rates vary depending on the individual employee's hire date and unit and are summarized below for the year ended June 30, 2020.

Employee Hire Date	Benefit Formula	Employee Contribution Rate
Safety – Firefighter Unit		
Prior to 1/1/2011	3.0% at 50	19.99% as of 9/1/2018^ 20.53% as of 9/1/2019^
1/1/2011 - 6/30/2012	3.0% at 50	19.99% as of 9/1/2018^
On or After 7/1/2012 (with reciprocity)	3.0% at 55	20.53% as of 9/1/2019^
On or After 1/1/2013 (without reciprocity)	2.7% at 57 (PEPRA)	50% of Normal Cost
Safety – Firefighter Management Unit		
Prior to 7/1/2012	3.0% at 50	20.22% as of 7/1/2019^
On or After 7/1/2012 (with reciprocity)	3.0% at 55	50% of Normal Cost as of 7/1/2020^
On or After 1/1/2013 (without reciprocity)	2.7% at 57 (PEPRA)	50% of Normal Cost

Employee Hire Date	Benefit Formula	Employee Contribution Rate
<i>Safety – Executive Management</i>		
Prior to 7/1/2011	3.0% at 50	50% of Normal Cost
On or After 7/1/2011 (with reciprocity)	3.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.7% at 57 (PEPRA)	50% of Normal Cost
<i>General – General and Supervisory Management</i>		
Prior to 7/1/2011	2.7% at 55	16.50%
On or After 7/1/2011 (with reciprocity)	2.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.5% at 67 (PEPRA)	50% of Normal Cost
<i>General – Administrative Management</i>		
Prior to 12/1/2012	2.7% at 55	16.50%
On or After 12/1/2012 (with reciprocity)	2.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.5% at 67 (PEPRA)	50% of Normal Cost
<i>General – Executive Management</i>		
Prior to 12/1/2012	2.7% at 55	50% of Normal Cost as of 3/3/2017^
On or After 12/1/2012 (with reciprocity)	2.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.5% at 67 (PEPRA)	50% of Normal Cost

^ Capped at maximum employee contribution

For the year ended June 30, 2020, employer and employee contributions remitted to OCERS were as follows:

	Employer Contributions	Employee Contributions	Total Contributions
Contributions paid by OCFA	\$93,232,215	\$ -	\$ 93,232,215
Contributions paid by employees	-	25,657,245	25,657,245
Total	<u>\$93,232,215</u>	<u>\$25,657,245</u>	<u>\$118,889,460</u>

(b) Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources

OCFA's net pension liability with OCERS is measured as the proportionate share of the net pension liability. The net pension liability of each member agency is measured as of December 31, 2019, and the total pension liability for each member agency used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2018, rolled forward to December 31, 2019, using standard update procedures. OCFA's proportion of the net pension liability was based on a projection of OCFA's long-term share of contributions to the pension plan relative to the projected contributions of all participating agencies, actuarially determined. OCFA's proportionate share of the total OCERS net pension liability as of June 30, 2020 and 2019 was as follows:

Member Type	OCFA's Proportionate Share of the Total OCERS Net Pension Liability					
	At June 30, 2019		Increase (Decrease)		At June 30, 2020	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Safety	\$410,894,885	6.6%	\$ (88,953,143)	(0.2%)	\$321,941,742	6.4%
General	55,836,641	0.9%	(23,382,926)	(0.3%)	32,453,715	0.6%
Total	<u>\$466,731,526</u>	<u>7.5%</u>	<u>\$ (112,336,069)</u>	<u>(0.5%)</u>	<u>\$354,395,457</u>	<u>7.0%</u>

For the year ended June 30, 2020, OCFA recognized pension expense of \$67,124,196. At June 30, 2020, OCFA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience in the Total Pension Liability	\$ 24,478,887	\$(38,937,675)
Changes in assumptions	29,267,911	(130,986)
Net differences between projected and actual earnings on plan investments	<u>-</u>	<u>(58,927,667)</u>
	53,746,798	(97,996,328)
Employer contributions subsequent to measurement date	<u>58,377,000</u>	<u>-</u>
Total	<u>\$112,123,798</u>	<u>\$(97,996,328)</u>

Deferred outflows of resources related to contributions subsequent to the measurement date totaling \$58,377,000 will be recognized as a reduction of the net pension liability in the year ended June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will also be recognized as an adjustment to pension expense as follows:

Year Ended June 30	Amount
2021	\$(22,142,217)
2022	(14,700,769)
2023	10,935,776
2024	(22,568,325)
2025	<u>4,226,005</u>
Total	<u>\$(44,249,530)</u>

(c) Actuarial Assumptions

The total pension liability in the December 31, 2018, actuarial valuation was determined using the following actuarial assumptions:

Valuation Date	December 31, 2018	
Measurement Date	December 31, 2019, rolled forward on an actuarial basis	
Actuarial Cost Method	Entry age actuarial cost method (normal)	
Discount rate	7.00%	
Inflation	2.75%	
Investment rate of return	7.00%, net of pension plan investment expense, including inflation	
Salary increases	Safety 4.75% to 17.25% and General 4.25% to 12.25% (vary by service, including inflation)	
Date of experience study	Actuarial assumptions were based on the results of an experience study for the period January 1, 2014 through December 31, 2016.	
Mortality:	Safety	General
• Healthy	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected generationally with the two-dimensional MP-2016 projection scale, set back four years	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected generationally with two-dimensional MP-2016 projection scale.
• Disabled	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally with the two-dimensional MP-2016 projection scale	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected generationally with the two-dimensional MP-2016 projection scale, set forward five years
• Beneficiaries	Beneficiaries are assumed to have the same mortality as a General Member of the opposite sex who is receiving a service (non-disability) retirement.	

<ul style="list-style-type: none"> Employee Contribution Rates 	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016 set back four years, weighted 80% male and 20% female	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, weighted 40% male and 60% female
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The mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Discount Rate

The discount rate used to measure the Total Pension Liability was 7.00% and 7.00% as of December 31, 2019, and December 31, 2018, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of both December 31, 2019, and December 31, 2018.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation, and subtracting expected investment expenses and a risk margin.

The target allocation (approved by the OCERS Retirement Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Global Equity	35.0%	6.38%
Core Bonds	13.0%	1.03%
High Yield Bonds	4.0%	3.52%
Bank Loans	2.0%	2.86%
TIPS	4.0%	0.96%
Emerging Market Debt	4.0%	3.78%
Real Estate	10.0%	4.33%
Core Infrastructure	2.0%	5.48%
Natural Resources	10.0%	7.86%
Risk Mitigation	5.0%	4.66%
Mezzanine/Distressed Debts	3.0%	6.53%
Private Equity	8.0%	9.48%
Total	<u>100.0%</u>	

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents OCFA's proportionate share of the net pension liability with OCERS, calculated using the discount rate of 7.00%, as well as what OCFA's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate.

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Total proportionate share of net pension liability	<u>\$664,737,575</u>	<u>\$354,395,457</u>	<u>\$101,964,573</u>

(d) Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued OCERS financial report.

(24) Retirement Plan for Part-Time Employees

(a) General Information About the Plan

Plan Description and Administration

OCFA administers the Extra Help Retirement Plan (Plan), a single-employer defined benefit pension plan that provides retirement benefits for its less than half-time and extra help employees. The Plan was established on January 1, 1997, and is accounted for in the Extra Help Retirement Plan fiduciary fund. The Board establishes and amends all Plan provisions, and has the authority to change contribution rates and investment types. A separate, audited pension plan report is not available. Effective July 1, 2018, the Plan is closed to new entrants and all eligible extra help employees hired by OCFA are enrolled as participants in a 457(OBRA) Deferred Compensation Plan in lieu of the Extra Help Retirement Plan.

Benefits Provided

The Plan provides retirement benefits in the form of a lifetime annuity. Retirement benefits are calculated at the rate of 2% of career earnings during the first thirty years of credited service. Upon retirement, participants are eligible to receive their benefit either as a lump sum payment or as a monthly payment. If employment with OCFA is terminated prior to retirement and the value of the employee's contributions with interest is \$3,500 or less, the employee may receive an immediate lump sum distribution in lieu of any future benefits payable under the Plan. If the value of the terminated employee's contributions with interest exceeds \$3,500, the employee may elect to receive a lump sum distribution or leave the contributions on deposit until he or she reaches retirement age.

During the year ended June 30, 2020, lump sum distributions totaling \$13,768 were made to three participants. Currently, there are no participants collecting retirement benefits.

Plan Membership

As of June 30, 2020, Plan membership consisted of the following:

Plan Members (or Beneficiaries)	Balance as of June 30, 2020		
	\$3,500 or Less	More than \$3,500	Total
Inactive; currently receiving benefits	-	-	-
Inactive; entitled to but not yet receiving benefits	36	2	38
Active	<u>1</u>	-	<u>1</u>
Total	<u>37</u>	<u>2</u>	<u>39</u>

Contributions

All eligible half-time and extra help employees hired on or after January 1, 1997, are required to contribute a percentage of compensation corresponding to an age-based table included in the Plan. Age is determined as attained age on every January 1. Employee contributions rates range from 2.5% to 7.5% based on age. After 30 years of credited service, OCFA is responsible for the employee's Plan contributions. Employee contributions are credited with 5% interest compounded semi-annually. Any interest earnings credited to the Plan in excess of actual investment earnings are reported as employer contributions. During the year ended June 30, 2020, employee and employer contributions totaled \$891 and \$1,072, respectively.

(b) Investments

Method Used to Value Investments

All Plan assets are invested in the Local Agency Investment Fund (LAIF), which is reported based on OCFA's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio).

Investment Policy

Contributions are deposited into OCFA's Local Agency Investment Fund (LAIF), which is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California and the Pooled Money Investment Board. Additional LAIF information is provided within these notes as Note 4(d).

Concentrations

All Plan assets are invested in the Local Agency Investment Fund (LAIF).

(c) Net Pension Liability

Net pension liability is measured as the total pension liability, less the pension plan's fiduciary net position. The Plan's fiduciary net pension liability is measured as of June 30, 2020, using an actuarial valuation as of January 1, 2020, rolled forward to June 30, 2020, using standard update procedures. A summary of components of the Plan's net pension liability as of June 30, 2020, is shown below, followed by principal assumptions and methods used to determine the net pension liability.

Total pension liability	\$122,785
Plan fiduciary net position	<u>(46,934)</u>
Net pension liability	<u>\$ 75,851</u>
Plan fiduciary net position as a % of the total pension liability	38.22%

Actuarial Assumptions

Actuarial calculations reflect a long-term perspective. Calculations are based on the benefits provided under the terms of the Plan in effect at the time of each valuation and on the pattern of sharing of costs between the OCFA and plan members to that point. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future.

The total pension liability in the January 1, 2020, actuarial valuation was determined using the following actuarial assumptions:

Valuation Date	January 1, 2020
Measurement Date	June 30, 2020, rolled forward on an actuarial basis
Actuarial Cost Method	Entry age normal
Discount rate	2.45%, net of pension investment expense, including inflation; average of 3-20 year municipal bond rate indices, rounded to 5 basis points (S&P Municipal Bond 20 Year High Grade Rate Index, Bond Buyer 20-Bond GO Index, Fidelity GO AA 20 Year Bond Index)
Inflation	2.75%
Investment rate of return	2.45%
Salary increases	3.00%, including merit, seniority, and inflation; annual salary for the current year assumed to be equal to the average annual salary over the last 3 years
Mortality	PubS2010 mortality table with generational improvements based on the MP-2019 scale. As the plan is not large enough to have credible experience, mortality assumptions are set to reflect general population trends.
Experience study	Given the size of the plan, there was not enough data available to conduct a credible experience study. The assumptions are not anticipated to produce significant cumulative actuarial gains or losses over time. Liabilities and data are analyzed each year in order to identify any trends of experience deviating from the actuarial assumptions.
Form of payment	Participants who have 5 years or less of credited service or have a contribution balance less than or equal to \$3,500 are assumed to take an immediate lump sum upon termination or retirement. Participants who have worked more than 5 years or have attained age 55 are assumed to commence a modified cash refund annuity starting at age 65. As the plan is not large enough to have credible experience, forms of payment are based on professional judgment and expectations based on the provisions of the plan.
Retirement	100% retirement at age 65. Due to the size of the plan, use of an assumption more than a single point estimate is not merited.
Termination	Service 0 years, Rate 30%; Service 1-3 years, Rate 50%; Service 4 years, Rate 25%; Service 5+ years, Rate 5%
Plan Assets	The employee contributions are deposited into the Authority's LAIF account. The LAIF account is managed by the State Treasurer's Office and is invested in fixed income securities.

Changes of Assumptions

Following is a comparison of actuarial assumptions for the years ended June 30, 2020 and 2019:

	<u>As of June 30, 2020</u>	<u>As of June 30, 2019</u>	<u>Change</u>
Discount rate	2.45%	3.15%	(0.70)%
Inflation	2.75%	2.75%	n/a
Investment rate of return	2.45%	3.15%	(0.70)%
Salary increases	3.00%	3.00%	n/a

Discount Rate

The discount rate used to measure the total pension liability was 2.45% (a decrease of 0.70% since the prior measurement date). The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Professional judgment on future contributions has been applied in those cases where contribution patterns deviate from the actuarially determined rates. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2020, are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Local Agency Investment Fund	100.00%	2.45%

The annual money-weighted rate of return was 2.30%, and was an estimate based on mid-year timing of contributions and benefit payments. The money rated rate of return expresses investment performance, net of pension plan investment expenses, adjusted for changing amounts actually invested.

(d) Changes in the Net Pension Liability

Changes in the Plan's net pension liability for the year ended June 30, 2020, were as follows:

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/ (Asset)
Balance at June 30, 2019	<u>\$171,139</u>	<u>\$57,548</u>	<u>\$113,591</u>
Changes in the year:			
Service cost	6,786	-	6,786
Interest	5,388	-	5,388
Differences between expected and actual experience	(63,020)	-	(63,020)
Changes of assumptions	16,260	-	16,260
Contributions – employer	-	1,072	(1,072)
Contributions – plan members	-	891	(891)
Net investment income	-	1,191	(1,191)
Benefit payments, including refunds of employee contributions	<u>(13,768)</u>	<u>(13,768)</u>	<u>-</u>
Net changes	<u>(48,354)</u>	<u>(10,614)</u>	<u>(37,740)</u>
Balance at June 30, 2020	<u>\$122,785</u>	<u>\$46,934</u>	<u>\$ 75,851</u>

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability, calculated using the discount rate of 2.45%, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (1.45%) or one percentage point higher (3.45%) than the current rate:

	1% Decrease (1.45%)	Current Discount Rate (2.45%)	1% Increase (3.45%)
Net pension liability	<u>\$101,176</u>	<u>\$75,851</u>	<u>\$56,179</u>

(e) Pension Expense and Deferred Outflows/Inflows of Resources

For the year ended June 30, 2020, OCFA recognized pension expense (credit) of \$(31,130). At June 30, 2020, OCFA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience in the Total Pension Liability	\$ -	\$ -
Changes in assumptions	-	-
Net differences between projected and actual earnings on plan investments	<u>874</u>	<u>-</u>
Total	<u>\$874</u>	<u>\$ -</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as an adjustment to pension expense as follows:

Year Ended June 30	Amount
2021	\$278
2022	353
2023	155
2024	<u>88</u>
Total	<u>\$874</u>

(f) Pension Plan Fiduciary Net Position

As previously mentioned, the Plan does not issue a separate stand-alone financial report. Below are the Plan's financial statements as of and for the year ending June 30, 2020:

	Extra Help Retirement
Assets:	
Cash and investments:	
Local Agency Investment Fund:	
Domestic fixed income	<u>\$46,934</u>
Total assets	<u>46,934</u>
Net position restricted for pensions	<u>\$46,934</u>
Additions:	
Contributions:	
Employer	\$ 1,072
Plan members	<u>891</u>
Total contributions	<u>1,963</u>
Net investment income:	
Total investment income	<u>1,191</u>
Total net investment income	<u>1,191</u>
Total additions	<u>3,154</u>
Deductions:	
Benefits and refunds paid to plan members and beneficiaries	<u>13,768</u>
Total deductions	<u>13,768</u>
Change in net position	(10,614)
Net position, beginning of year	<u>57,548</u>
Net position, end of year	<u>\$46,934</u>

(25) Other Postemployment Benefits (OPEB)

(a) General Information

Plan Description and Administration

OCFA provides other postemployment benefits (OPEB), such as healthcare benefits to eligible retirees and their dependents, through the Retiree Medical Plan (Plan). The purpose of the Plan is to assist employees hired prior to January 1, 2007, in maintaining health insurance coverage following their retirement by providing a monthly grant applied toward the cost of such health insurance coverage. The Plan is intended to qualify for the exclusion from income as an accident or health plan under sections 105(e) and 106 of the Internal Revenue Code. Employee participation is contingent on a contribution of 4% of base salary through payroll deductions to OCFA. OCFA has entered into Memorandum of Understanding with each of its four labor bargaining groups mandating this 4% employee contribution.

The single-employer Plan was established by OCFA's Board of Directors on January 1, 1997, and amended on September 28, 2006. OCFA's Board of Directors is the Plan's Board, establishing and amending all Plan provisions, including benefit terms and contribution requirements, through negotiations with labor bargaining groups. OCFA may terminate the Plan by action of its Board of Directors in its sole discretion. Amendment or termination of the plan is subject to the meet and confer requirement of the Myers-Milias-Brown Act and any other applicable law.

Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by the Orange County Employees Retirement System (OCERS). Funds are held in a trust account established pursuant to Section 401(h) of the Internal Revenue Code and are held separate from the assets of the OCERS retirement system, except for investment purposes. The trust is presented in accordance with the Plan year, which is on a calendar basis ending December 31, 2019. The Plan's Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position (presented within the Fiduciary Funds of these financial statements) are reported as of the December 31, 2019 plan year-end date. A publicly available OCERS financial report, which includes the Plan's assets, can be obtained at 2223 Wellington Avenue, Santa Ana, California 92701 or online at <http://www.ocers.org/finance/finance.htm>. A separate, audited OPEB Plan report is not available.

All retirees and full-time employees hired on or after January 1, 2007, are not considered Plan participants; however, they are eligible to receive OPEB benefits in the form of employer contributions toward monthly healthcare premiums per the Public Employees' Medical and Hospital Care Act (PEMHCA). OCFA provides health insurance benefits to its employees and retirees through the California Public Employees' Retirement System (CalPers), subject to the legal requirements of the PEMHCA. OCFA contributes toward the monthly payment of healthcare premiums on behalf of eligible retirees at an amount equal to the PEMHCA statutory minimum, which was \$136 for 2019 and \$139 for 2020. In addition, retirees and full-time employees hired on or after January 1, 2007, are eligible to participate in an employer-sponsored defined contribution plan. Additional information regarding the defined contribution benefit is provided within these notes as Note 26.

Eligibility

All full-time or part-time employees who were hired prior to January 1, 2007, and who are credited with at least one year (2,080 hours) of service are eligible to participate in the Plan. An eligible employee, and his or her surviving dependents, will participate in the Plan upon his or her retirement or other termination of employment with OCFA, subject to the terms and conditions contained in the Plan, as applicable for "covered retirees" and "covered former employees."

- A "covered retiree" is a retiree who receives a monthly retirement allowance from the Orange County Employees Retirement System (OCERS) and who meets all coverage and participation requirements.
- A "covered former employee" is an employee who meets the coverage and participation requirements of the Plan at the time of his or her termination of employment with OCFA.

An employee who retires and does not immediately begin receiving a retirement allowance from OCERS will not participate in the Plan until such retirement allowance commences. An employee who terminates employment with OCFA for reasons other than retirement, or who is not eligible to receive a monthly retirement allowance from OCERS, will not be eligible to receive the grant until the age of fifty-five (55) and requests that OCFA commence distribution of the grant. Such requests must be made no later than ninety (90) days from the employee's fifty-fifth birthday.

To be eligible to receive the grant, a participant must be covered under a "qualified health plan" (covered retirees), a "recognized health insurance plan" (covered former employees), or Medicare. A "qualified health plan" is a health insurance plan made available to OCFA's employees and retirees, including an OCFA health plan or a plan administered by an employee organization that the OCFA has agreed will be a "qualified health plan." A "recognized health insurance plan" means a health insurance plan other than a "qualified health plan" covering a former employee or his/her surviving dependents and which is acceptable to OCFA.

Participation of a covered retiree, a covered former employee, or his or her surviving dependents may be terminated as follows:

- Participation of a covered retiree and his or her surviving dependents will cease and eligibility for benefits will be terminated upon the earlier of (a) the failure to elect coverage under a "qualified health plan" or Medicare; (b) failure to make all required contributions or premium payments under a "qualified health plan;" (c) the participant's death; (d) amendment of the Plan to preclude such coverage; or (e) termination of the Plan.
- Participation of a covered former employee and his or her surviving dependents will cease and eligibility for benefits will be terminated upon the earlier of (a) the failure or refusal to maintain and provide proof of coverage under a "recognized health insurance plan" or Medicare; (b) the participant's death; (c) amendment of the Plan to preclude such coverage; or (d) termination of the Plan.

If participation in the Plan is terminated, eligibility will be extinguished, years of service will be lost, and he or she may not later again participate in the Plan.

Benefit Provisions

The Plan provides a grant toward the cost of retirees' health insurance coverage. The grant is equal to the product of the monthly grant amount multiplied by years of credited service, up to a maximum of twenty-five years.

- The amount of the monthly grant is adjusted annually by the average increase or decrease in OCFA's health plan premiums, not to exceed 5% per year. The amount of the monthly grant was as follows for calendar years 2018 through 2020:

<u>Calendar Year</u>	<u>Monthly Grant Amount</u>	<u>% Increase</u>
2020	\$27.74	5.0%
2019	\$26.42	1.4%
2018	\$26.06	2.2%

- The grant is applied as a credit or reimbursement to reduce the cost of the retiree's or former employee's monthly medical insurance premium under his or her selected health plan. If the grant amount exceeds the cost of such coverage, it may be used to offset the cost of the Medicare premium. In no case may the grant exceed the actual cost of the combined health plan and Medicare premiums.
- A surviving dependent of an eligible retiree or former employee is eligible to receive a monthly survivor benefit equal to 50% of the grant that the retiree or covered former employee was eligible to receive at the time of his or her death. A surviving dependent is (a) a surviving spouse who was legally married to an employee, retiree, or covered former employee at the time of his or her death; or (b) a dependent child, as defined by an OCFA health plan or health plan of a covered former employee, of a deceased employee, retiree, or covered former employee.

Plan Membership

The Retiree Medical Plan is closed to new entrants. Plan membership consisted of the following at December 31, 2019, the date of the latest actuarial valuation:

Plan Membership Status	Retiree Medical Plan (Hired Prior to January 1, 2007)	PEMHCA Eligible Employees (Hired on or After January 1, 2007)	Total
Inactive plan members or beneficiaries currently receiving benefit payments	787	1	788
Inactive plan members entitled to but not yet receiving benefit payments	34	-	34
Active plan members	<u>451</u>	<u>959</u>	<u>1,410</u>
Total	<u>1,272</u>	<u>960</u>	<u>2,232</u>

Contributions

Current, active employees who became employed by OCFA prior to January 1, 2007, are required to contribute 4% of their base salary through payroll deductions to OCFA, to be applied as employee contributions to the Plan, per the terms of the Plan, Memorandums of Understanding between OCFA and each of its four labor bargaining groups, and the Personnel and Salary Resolution covering unrepresented employees. Employee participation in the Plan is contingent on this 4% payroll deduction.

At the time the Plan was implemented and subsequently amended in 2006, all OCFA classifications received a salary range adjustment, which was earmarked for the required employee contribution. Employees were not given the option to receive the salary increase as cash payment. Required employee withholdings contributed to the Plan are considered employer contributions for tax purposes, because OCFA as the employer maintains the tax-exempt status for the Plan. However, these contributions are considered employee contributions for financial reporting purposes.

OCFA may also make additional employer contributions to the Plan in amounts authorized to be contributed by the Board of Directors. OCFA's employer contributions to the Plan were as follows:

Type of Employer Contribution	Measurement Period Ending December 31, 2019	Fiscal Year Ending June 30, 2020
Cash contributions	\$ -	\$ -
Implicit subsidy	<u>2,221,564</u>	<u>2,252,945</u>
Total	<u>\$2,221,564</u>	<u>\$2,252,945</u>

(b) Plan Investments

Investment Policy

OCERS serves as trustee for the Plan's assets as established under Internal Revenue Code Section 401(h). Health care assets for the 401(h) trusts are commingled with OCERS' pension trust assets for investment purposes and are used exclusively to pay health benefits to OCFA's eligible Plan members.

State Street Bank and Trust maintains custody of the majority of OCERS' investments. The acquisition of investments is authorized by state statute and OCERS' Investment Policy Statement. The allocation of investment assets is approved by OCERS' Board of Retirement, as outlined in its Investment Policy Statement, and assets are invested solely for the benefit of plan participants and beneficiaries while attempting to minimize employer contributions and investment and administration costs. The Investment Policy Statement calls for an asset allocation plan that seeks to optimize long-term returns for the level of risk that the Board of Retirement considers appropriate. The Board of Retirement conducts a

periodic review of the asset allocation plan to maintain an optimal allocation, and may also revise the asset allocation in response to significantly changing market conditions that may affect valuations and forward-looking expected returns of asset classes.

Investments are reported at fair value, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 72 *Fair Value Measurement and Application*. Plan investments consist of domestic, international and global equity securities; domestic fixed income; real estate; diversified credit; emerging markets equity and debt; real return strategies; absolute return strategies; and private equity. OCERS is authorized by its investment policy and state law to lend its investment securities, including global public equities, core fixed income, credit, and real assets to brokers/dealers in exchange for collateral in the form of either cash or securities.

The following was the Board of Retirement's adopted asset allocation plan as of December 31, 2019:

Asset Class	Target Allocation
Credit	11.0%
Real Assets	17.0%
Global Equities	35.0%
Private Equity	10.0%
Fixed Income	17.0%
Risk Mitigation	<u>10.0%</u>
Total	<u>100.0%</u>

Concentrations

Concentration of credit risk is the risk of loss attributed to the magnitude of OCERS' investment in a single issuer. By policy, OCERS did not hold investments in any one issuer that represented five percent (5%) or more of net position and net investments during the year ended December 31, 2019. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this policy requirement.

Rate of Return

For the year ended December 31, 2019, the annual money-weighted rate of return on OCERS' plan assets, net of investment expense, was 14.8%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the timing of cash flows and the changing amounts actually invested.

(c) Net OPEB Liability

Components of the Net OPEB Liability

Net OPEB liability is measured as the total OPEB liability, less the Plan's fiduciary net position. The Plan's fiduciary net position is measured as of December 31, 2019, using an actuarial valuation as of December 31, 2019, rolled forward to December 31, 2019, using standard update procedures. A summary of components of the Plan's net OPEB liability as of the measurement date is shown below, followed by principal assumptions and methods used to determine the net OPEB liability.

Total OPEB liability	\$286,369,153
Plan fiduciary net position	<u>(41,404,890)</u>
Net OPEB liability	<u>\$244,964,263</u>
Plan fiduciary net position as a % of the total OPEB liability	14.46%

Actuarial Assumptions

The total OPEB liability in the December 31, 2019, actuarial valuation was determined using the following actuarial assumptions:

Valuation Date	December 31, 2019		
Measurement Date	December 31, 2019		
Actuarial Cost Method	Entry age normal		
Discount Rate	3.31%; Based on the blended rate of return on invested assets available to pay future benefits and the Bond Buyer 20-Bond GO index (3.26% as of December 31, 2019). The crossover year is 2025.		
Inflation	2.75%		
Investment Rate of Return	7.0%		
Salary Increases	3.25%		
Pre and Post-Retirement Mortality	Mortality rates from the SOA Pub-2010 Headcount Weighted Mortality Tables for General, Safety, and Continuing Survivor projected fully generational using Scale MP-2019.		
Healthcare Cost Trend Rates	<u>Year</u>	<u>Trend</u>	
	2020	6.5%	
	2021	6.0%	
	2022	5.5%	
	2023	5.0%	
	2024	4.5%	
Funding Policy	Partially prefund benefits through 4% employee contributions through a 401(h) account held in trust with OCERS		
Pre-Retirement Turnover	0.9% - 11.0% (General) 0.2% - 4.5% (Safety)		
Retirement Age	<u>Age</u>	<u>General</u>	<u>Safety</u>
	50-54	2.0% - 5.5%	5.0% - 15.0%
	55-59	10.0% - 15.0%	18.0% - 28.0%
	60-64	12.0% - 16.0%	30.0% - 35.0%
	65-69	22.0% - 23.0%	100.0%
	70-74	25.0%	100.0%
	75+	100.0%	100.0%
Future Accruals	Current active employees are assumed to earn one year of service for each future year.		
Participation Rates	100% of active employees eligible for the Plan grant are assumed to elect medical coverage at retirement. 35% of active employees eligible for the PEMHCA minimum required contribution are assumed to elect to continue coverage through PEMHCA at retirement.		
Spouse Coverage	For future retirees, 65% of males and 25% females are assumed to be married at retirement or pre-retirement death. For current retirees, spouses are assumed for those enrolled in two-party and family coverage. Male spouses are assumed to be three years older than female spouses.		
Claim Cost Development	Based on the 2019 and 2020 premiums and funding rates. Safety employees are underwritten with the active and retirees pooled together, thus an implied rate subsidy has been estimated and is included in the valuation. The rate subsidy equals the difference between the estimated cost and the actual premium for coverage. General employees are assumed to participate in a community-rated plan. This valuation includes the liability for the implied subsidy. The expected retiree cost for both Safety and General employees is determined using unisex morbidity rates.		
Medical Grant Amount	5% annual increase		
Minimum Required Contribution (PEMHCA)	4% annual increase		
Actuarial Value of Assets	Market Value		

Changes of Assumptions

Following is a comparison of changes in actuarial assumptions as of December 31, 2019 and 2018:

	As of December 31, 2019	As of December 31, 2018	Change
Discount rate	3.31%	4.17%	(0.86%)
Twenty-year bond rate	3.26%	4.11%	(0.85%)
Crossover year	2025	2025	n/a
Mortality rate scale	MP-2019	MP-2018	n/a
Pre-retirement turnover	0.2% - 11.0%	0.2% - 11.0%	n/a

Discount Rate

The discount rate used to measure the total OPEB liability was 3.31% (a decrease of 0.86% since the prior measurement date). The projection of cash flows used to determine the discount rate assumed that plan member contributions were made at the 4.0% required contribution rate. The discount rate incorporates a municipal bond rate of 3.26% (Bond Buyer 20-Bond GO index). Based on those assumptions, the Plan's fiduciary net position is projected to be unable to make all projected future benefit payments for its current plan members in the year 2025.

Rate of Return

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The projections of the sharing of benefit-related costs are based on an established pattern of practice. Best estimates of arithmetic real rates of return for each major asset class included in the OPEB plan's target asset allocation as of December 31, 2019, are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Credit	11.0%	5.0%
Real Assets	17.0%	5.0%
Global Equities	35.0%	5.0%
Private Equity	10.0%	7.0%
Fixed Income	17.0%	1.0%
Risk Mitigation	<u>10.0%</u>	4.0%
Total	<u>100.0%</u>	

The annual money-weighted rate of return was 14.8%.

(d) Changes in the Net OPEB Liability

Changes in the Plan's net OPEB liability for the year ended June 30, 2020, were as follows:

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at June 30, 2019	<u>\$258,469,145</u>	<u>\$39,031,338</u>	<u>\$219,437,807</u>
Changes in the year:			
Service cost	6,034,031	-	6,034,031
Interest on the total OPEB liability	10,878,843	-	10,878,843
Difference between expected and actual experience	(647,369)	-	(647,369)
Changes in assumptions	18,873,824	-	18,873,824
Contributions – employer	-	2,221,564	(2,221,564)
Contributions – plan members	-	2,111,158	(2,111,158)
Net investment income (loss)	-	5,301,391	(5,301,391)
Benefit payments, including refunds of employee contributions	(7,239,321)	(7,239,321)	-
Administrative expense	-	(21,240)	21,240
Net changes	<u>27,900,008</u>	<u>2,373,552</u>	<u>25,526,456</u>
Balance at June 30, 2020	<u>\$286,369,153</u>	<u>\$41,404,890</u>	<u>\$244,964,263</u>

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability, calculated using the current discount rate of 3.31%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.31%) or one percentage point higher (4.31%) than the current discount rate:

	1% Decrease (2.31%)	Current Discount Rate (3.31%)	1% Increase (4.31%)
Net OPEB liability	<u>\$299,205,826</u>	<u>\$244,964,263</u>	<u>\$202,575,653</u>

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability, calculated using the current healthcare cost trend rates (6.5% decreasing to 4.5%), as well as what the net OPEB liability would be if it were calculated using rates that are one percentage point lower (5.5% decreasing to 3.5%) or one percentage point higher (7.5% decreasing to 5.5%) than the current rates:

	1% Decrease (5.5% decreasing to 3.5%)	Current Healthcare Cost Trend Rates (6.5% decreasing to 4.5%)	1% Increase (7.5% decreasing to 5.5%)
Net OPEB liability	<u>\$228,593,091</u>	<u>\$244,964,263</u>	<u>\$256,757,743</u>

(e) OPEB Expense and Deferred Outflows/Inflows of Resources Related to OPEB

For the year ended June 30, 2020, OCFA recognized OPEB expense of \$3,616,673. At June 30, 2020, OCFA reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience in the total OPEB liability	\$ -	\$ (1,455,276)
Changes in assumptions	14,155,368	(11,810,640)
Net differences between projected and actual earnings on plan investments	-	(1,008,967)
	14,155,368	(14,274,883)
Contributions subsequent to measurement date	<u>1,142,163</u>	-
Total	<u>\$15,297,531</u>	<u>\$ (14,274,883)</u>

Deferred outflows of resources related to contributions subsequent to the measurement date totaling \$1,142,163 will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2021. All other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will also be recognized as an adjustment to OPEB expense as follows:

<u>Year Ended June 30</u>	<u>Amount</u>
2021	\$(8,554,580)
2022	4,225,811
2023	4,739,190
2024	<u>(529,936)</u>
Total	<u>\$ (119,515)</u>

(f) OPEB Plan Fiduciary Net Position

As previously mentioned, the Plan does not issue a separate stand-alone financial report. Below are the Plan's financial statements as of and for the year ending June 30, 2020:

	<u>Retiree Medical Plan</u>
Assets:	
Cash and investments:	
Pooled amounts held in trust with OCERS	<u>\$42,242,955</u>
Total cash and investments	42,242,955
Receivables:	
Other receivables	<u>12,302</u>
Total assets	<u>\$42,255,257</u>
Liabilities:	
Accrued liabilities	<u>850,367</u>
Total liabilities	<u>850,367</u>
Net position restricted for postemployment benefits other than pensions	<u>\$41,404,890</u>
Additions:	
Contributions:	
Employer	\$ 2,221,564
Plan members	<u>2,111,158</u>
Total contributions	<u>4,332,722</u>
Net investment income:	
Total investment income (loss)	5,565,786
Investment fees and expenses	<u>(264,395)</u>
Total net investment income (loss)	<u>5,301,391</u>
Total additions	<u>9,634,113</u>
Deductions:	
Benefits and refunds paid to plan members and beneficiaries	7,239,321
Administrative expenses	<u>21,240</u>
Total deductions	<u>7,260,561</u>
Change in net position	2,373,552
Net position, beginning of year	<u>39,031,338</u>
Net position, end of year	<u>\$41,404,890</u>

(26) Retiree Defined Contribution Healthcare Expense Reimbursement Plan

(a) Plan Description and Administration

On September 28, 2006, OCFA's Board of Directors created the Orange County Fire Authority Retiree Defined Contribution Healthcare Expense Reimbursement Plan (Plan), an employer-sponsored defined contribution benefit plan. The Plan became effective January 1, 2007. OCFA's Board of Directors establishes and amends all Plan provisions through negotiations with labor bargaining groups, subject to all applicable requirements of the Myers-Milias-Brown Act and any other applicable law.

Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by Further (formerly Select Account). Funds are held in a Healthcare Reimbursement Account as a "self-insured medical reimbursement plan" pursuant to Sections 105 and 106 of the Internal Revenue Code. All contributions, investment income, and realized and unrealized gains and losses are credited to individual recordkeeping accounts maintained in the name of each Plan participant. Account assets are invested as directed by the participant from among investment funds selected by the OCFA. The Healthcare Reimbursement Account is considered an employer-funded account for tax purposes. An individual employee may not decide to participate or not participate beyond the terms of the applicable agreement.

(b) Benefit Provisions and Eligibility

All full-time employees who were hired on or after January 1, 2007, are eligible to participate in the Plan. The Plan provides for the reimbursement of medical, dental, and other eligible healthcare expenses of retirees, their spouses, and dependents. Participants are eligible to receive Plan benefits upon reaching retirement age, including those who terminate employment with the OCFA for reasons other than retirement.

(c) Contributions

All active, full-time employees who became employed by OCFA on or after January 1, 2007, are required to contribute 4% of their base pay to the Plan through payroll deductions to the OCFA. Employees are not permitted to contribute more or less to the Plan.

At the time the Plan was implemented, all OCFA classifications received a salary range adjustment that was earmarked for the required contribution into the Healthcare Reimbursement Account. Employees were not given the option to receive the salary increase as cash payment. Required employee withholdings contributed to the Plan are considered employer contributions for tax purposes, because OCFA as the employer maintains the tax-exempt status for the Plan. However, these contributions are considered employee contributions for financial reporting purposes. Contractually required employee contributions for the fiscal year ended June 30, 2020, totaled \$3,587,220.

(d) Public Employees' Medical and Hospital Care Act

All retirees and full-time employees hired on or after January 1, 2007, are eligible for the legally required Public Employees' Medical and Hospital Care Act (PEMHCA) minimum, as stipulated by the California Public Employees' Retirement System (CalPERS). Additional information regarding other postemployment benefits (OPEB) for PEMHCA is provided within these notes as Note 25.

(27) Deferred Compensation Plans

(a) 457(b) and 401(a) Deferred Compensation Plans

All OCFA employees may participate in OCFA's 457(b) Deferred Compensation Plan, a retirement savings plan. The 457(b) Deferred Compensation Plan (457b Plan) is administered by the Nationwide Trust Company. Employees may make voluntary contributions to the 457b Plan, including after-tax Roth 457 contributions, up to the maximum annual amounts permitted by the Internal Revenue Service. Voluntary employee contributions to the 457b Plan for the fiscal year ended

June 30, 2020, totaled \$11,558,606. In accordance with OCFA's Memorandum of Understanding with the Administrative Management unit, employees at the maximum of their salary range are eligible to receive a merit-based deferred compensation contribution in the amount of \$500 per year. Contractually required employer contributions to the 457b Plan for the fiscal year ended June 30, 2020, totaled \$11,000 for Administrative Management employees.

On February 28, 2019, OCFA's Board of Directors created the Orange County Fire Authority 401(a) Deferred Compensation Plan (401a Plan) in order to provide Executive Management employees with the opportunity to defer more of their pre-tax earnings into their individual 457(b) Deferred Compensation Plans. The 401a Plan is also administered by Nationwide Trust Company. In accordance with OCFA's Personnel and Salary Resolution, Executive Management employees are eligible to receive deferred compensation contributions from OCFA in an amount equal to 4.5% of base salary. Contractually required employer contributions to the 401a Plan for the fiscal year ended June 30, 2020, totaled \$104,919 for Executive Management employees.

OCFA's Board of Directors establishes and amends all deferred compensation plan provisions, including benefit terms and contribution requirements, through negotiations with labor bargaining groups when applicable. Amendment or termination of the plans is subject to the meet and confer requirement of the Myers-Milias-Brown Act and any other applicable law.

(b) 457(OBRA) Deferred Compensation Plan

On January 26, 2017, OCFA's Board of Directors created a 457(OBRA) Deferred Compensation Plan (Plan), a mandatory retirement savings plan, for the participation of all eligible part-time employees pursuant to federal legislation. For Internal Revenue Service (IRS) tax purposes, all OCFA Board Members are considered employees and, as such, OCFA is required to provide a retirement savings plan for mandatory enrollment. The Plan satisfies OCFA's obligation to enroll all employees in a retirement savings plan. Effective July 1, 2018, all eligible extra help employees hired by OCFA are also enrolled as participants in the Plan in lieu of OCFA's Extra Help Retirement Plan, a single-employer defined benefit pension plan described within these notes as Note 24.

Plan participants are required to contribute 7.5% of their earnings to the Plan, subject to maximum annual federal limits, and may immediately receive benefits without penalty upon separation of employment from OCFA. The Plan is administered by NaCoServices, Inc., a subsidiary of the National Association of Counties and Nationwide Retirement Solutions, Inc. Required employee contributions for the fiscal year ended June 30, 2020, totaled \$17,815.

(28) Subsequent Events

(a) Deposit to 115 Trust

On July 1, 2020, OCFA deposited \$1,500,000 into the Public Agencies Post-Employment Benefits Trust (115 Trust) for the purpose of pre-funding pension and/or other post-employment benefit obligations in accordance with terms of the Settlement Agreement between OCFA and the City of Irvine. Assets of the 115 Trust are held by U.S. Bank National Association (U.S. Bank) and are administered by Public Agency Retirement Services (PARS).

(b) Fire Services and Emergency Medical Services Agreement with the City of Placentia

The City of Placentia issued a notice of withdrawal to the OCFA, as allowed per the Joint Powers Agreement, prior to June 30, 2018. Effective July 1, 2020, the City of Placentia was no longer a member of OCFA and the responsibility to provide fire and emergency medical services were transferred to the new Placentia Fire and Life Safety Department.

(c) Approval of Memorandum of Understanding – Orange County Professional Firefighters Association

On August 27, 2020, OCFA's Board of Directors approved a Memorandum of Understanding (MOU) between OCFA and the Orange County Professional Firefighters Association (OCPFA), with a term of September 1, 2020, to August 31, 2022. The financial impact of the MOU is the equivalent-cost of a 3.08% employee salary increase over two years (\$4.2 million in year one and \$3.5 million in year two). Significant terms of the MOU included the following: (1) all specialty pays provided for in the existing MOU were converted from a percentage of top step firefighter salary to a percentage of each

employee's base salary; (2) Emergency Medical Technician (EMT) pay increased by 2% of base salary in September 2020 (from 5% to 7%) and 2% in September 2021 (from 7% to 9%); and (3) hazardous duty pay at 7.5% of base salary was added for Arson Investigators and Air Operations.

(d) Approval of Memorandum of Understanding – Orange County Fire Authority Chief Officers Association

On September 24, 2020, OCFA's Board of Directors approved a Memorandum of Understanding (MOU) between OCFA and the Orange County Fire Authority Chief Officers Association (COA), with a term of July 1, 2020, to June 30, 2023. The financial impact of the MOU is the equivalent-cost of a 7.59% employee salary increase over three years (\$630,636 in year one, \$236,471 in year two, and \$355,120 in year three). Significant terms of the MOU included the following: (1) new 4.5% Emergency Medical Technician (EMT) pay for employees with a current EMT or paramedic certification, increasing to 6.25% of base pay as of July 1, 2021 and 6.5% of base pay as of July 1, 2022; (2) new 3% longevity pay effective July 1, 2022, upon commencement of an employee's third year in a COA classification; and (3) an increase in sick leave accruals by seven and ten hours per year for staff and shift employees, respectively.

(e) Ongoing Response to COVID-19 Pandemic

The World Health Organization declared COVID-19 a global pandemic in March 2020 and government measures taken to contain the virus have adversely affected the economy. The exact impact of any continued negative economic activity on assessed property values and property taxes, OCFA's primary revenue source, is unknown at this time. There is generally a delay of one to two fiscal years between when a significant economic event occurs and when property tax revenues are subsequently impacted. OCFA has taken measures to monitor and prevent the effects of COVID-19, such as implementing employee health and safety measures and securing personal protective equipment essential to emergency response and support operations. Due to the ongoing nature of the pandemic, OCFA plans to continue its proactive measures to minimize the potential for exposure to OCFA's workforce. The exact financial impact of those activities for the remainder of 2020 cannot be predicted.

Required Supplementary Information



Open House
October 5, 2019

Required Supplementary Information

OCERS Retirement Plan

OCFA participates in the Orange County Employees Retirement System (OCERS), a cost-sharing multiple-employer, defined benefit pension plan that provides retirement, disability, and death benefits to safety and general members.

Extra Help Retirement Plan

OCFA administers a single-employer, defined benefit pension plan that provides retirement benefits for OCFA's less than half-time and extra help employees hired prior to July 1, 2018. Plan assets are accounted for in the Extra Help Retirement fiduciary fund.

Retiree Medical Plan

OCFA provides a single-employer, defined benefit plan for OCFA's full-time and part-time employees hired prior to January 1, 2007, which provides a monthly grant toward the cost of retirees' health insurance coverage. Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by the Orange County Employees Retirement System (OCERS).

ORANGE COUNTY FIRE AUTHORITY

OCERS Retirement Plan
A Cost-Sharing, Multiple-Employer Defined Benefit Pension Plan
As of June 30, 2020
Last Ten Fiscal Years (A)

Schedule of OCFA's Proportionate Share of the Net Pension Liability

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
OCFA's proportion of the collective net pension liability	8.366%	9.188%	9.056%	9.043%
OCFA's proportionate share of the collective net pension liability	\$ 442,651,348	\$ 466,968,323	\$ 517,669,806	\$ 469,430,660
OCFA's covered payroll	\$ 129,689,221	\$ 129,187,729	\$ 129,452,647	\$ 124,514,004
OCFA's proportionate share of the collective net pension liability as a percentage of covered payroll	341.32%	361.46%	399.89%	377.01%
Plan's fiduciary net position	\$ 10,821,318,000	\$ 11,536,106,000	\$ 11,657,318,000	\$ 12,809,208,000
Plan's fiduciary net position as a percentage of the total pension liability	67.16%	69.42%	67.10%	71.16%

Notes to Schedule:

(A) Fiscal year ended June 30, 2015 was the first year of implementation of GASB Statement No. 68; therefore, only seven years of data are available for presentation. Other years will be added as they become available.

(B) Applicable measurement date 12/31/2013 12/31/2014 12/31/2015 12/31/2016

2018		2019	2020		
7.485%		7.531%	6.982%		
\$	370,674,668	\$	466,731,526	\$	354,395,457
\$	148,890,685	\$	155,479,486	\$	164,583,742
248.96%		300.19%	215.33%		
\$	14,801,895,000	\$	14,481,680,000	\$	16,678,581,000
74.93%		70.03%	76.67%		
12/31/2017			12/31/2018		
			12/31/2019		

ORANGE COUNTY FIRE AUTHORITY

OCERS Retirement Plan
A Cost-Sharing, Multiple-Employer Defined Benefit Pension Plan
As of June 30, 2020
Last Ten Fiscal Years

Schedule of Contributions

	Fiscal Year Ended June 30			
	2011	2012	2013	2014
Required employer contributions (actuarially determined)	\$ 45,543,856	\$ 55,756,764	\$ 61,206,670	\$ 57,795,043
Actual employer contributions	45,543,856	55,756,764	61,206,670	63,030,796
Contribution excess (deficiency)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,235,753</u>
Covered payroll	\$ 107,268,263	\$ 111,444,130	\$ 128,121,447	\$ 125,869,628
Actual contributions as a percentage of covered payroll	42.46%	50.03%	47.77%	50.08%

Notes to Schedule:

(A) Beginning in Fiscal Year 2014/15, required and actual contributions presented in the above schedule exclude any employer-paid member contributions. Since it was not practical to obtain data in this format prior to Fiscal Year 2014/15, earlier periods have not been restated. Required and actual contributions presented for Fiscal Year 2013/14 and prior include any employer-paid member contributions.

2015	2016	2017	2018	2019	2020
\$ 61,323,319	\$ 63,297,103	\$ 66,284,815	\$ 67,135,009	\$ 68,220,529	\$ 72,228,778
82,699,618	78,708,605	82,880,775	90,230,805	91,053,475	93,232,215
<u>\$ 21,376,299</u>	<u>\$ 15,411,502</u>	<u>\$ 16,595,960</u>	<u>\$ 23,095,796</u>	<u>\$ 22,832,946</u>	<u>\$ 21,003,437</u>
(A)					
\$ 128,215,528	\$ 132,248,620	\$ 144,564,215	\$ 149,170,809	\$ 153,247,752	\$ 176,975,377
64.50%	59.52%	57.33%	60.49%	59.42%	52.68%

ORANGE COUNTY FIRE AUTHORITY

Extra Help Retirement Plan
A Single-Employer Defined Benefit Pension Plan
As of June 30, 2020
For the Last Ten Fiscal Years (A)

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
Total pension liability (TPL):				
Service cost	\$ 8,030	\$ -	\$ 8,331	\$ 6,050
Interest	11,484	-	11,865	6,637
Differences between expected and actual experience	(3,269)	9,728	(131,777)	-
Changes of assumptions	-	-	47,323	(27,593)
Benefit payments, including refunds of member contributions	(8,676)	(6,459)	(10,642)	(31,370)
Net change in total pension liability	7,569	3,269	(74,900)	(46,276)
Total pension liability - beginning	302,551	310,120	313,389	238,489
Total pension liability - ending	310,120	313,389	238,489	192,213
Plan fiduciary net position (FNP):				
Contributions - employer	2,117	2,481	2,267	839
Contributions - plan members	13,542	11,831	8,923	21,080
Net investment income	586	714	1,219	2,407
Benefit payments, including refunds of member contributions	(8,676)	(6,459)	(10,642)	(31,370)
Net change in plan fiduciary net position	7,569	8,567	1,767	(7,044)
Total plan fiduciary net position - beginning	56,895	64,464	73,031	74,798
Total plan fiduciary net position - ending	64,464	73,031	74,798	67,754
Net pension liability (NPL)	<u>\$ 245,656</u>	<u>\$ 240,358</u>	<u>\$ 163,691</u>	<u>\$ 124,459</u>
Plan FNP as a % of the TPL	20.79%	23.30%	31.36%	35.25%
Covered payroll	\$ 205,340	\$ 205,340	\$ 108,526	\$ 108,526
NPL as a % of covered payroll	119.63%	117.05%	150.83%	114.68%

Notes to Schedule:

(A) GASB Statements No. 67 and No. 68 were implemented during Fiscal Year 2013/14 and Fiscal Year 2014/15, respectively. Additional years will be added as they become available in the future.

(B) Change in actuarial assumptions:

Discount rate and investment rate of return	3.75%	3.75%	2.90%	3.40%
Inflation	3.00%	3.00%	2.75%	2.75%
Salary increases	3.00%	3.00%	3.00%	3.00%

2018	2019	2020
\$ 5,386	\$ 2,911	\$ 6,786
6,297	5,007	5,388
(36,700)	21,397	(63,020)
5,961	9,879	16,260
<u>(24,786)</u>	<u>(16,426)</u>	<u>(13,768)</u>
(43,842)	22,768	(48,354)
<u>192,213</u>	<u>148,371</u>	<u>171,139</u>
<u>148,371</u>	<u>171,139</u>	<u>122,785</u>
1,519	876	1,072
16,641	9,043	891
1,196	1,731	1,191
<u>(24,786)</u>	<u>(16,426)</u>	<u>(13,768)</u>
(5,430)	(4,776)	(10,614)
<u>67,754</u>	<u>62,324</u>	<u>57,548</u>
<u>62,324</u>	<u>57,548</u>	<u>46,934</u>
<u>\$ 86,047</u>	<u>\$ 113,591</u>	<u>\$ 75,851</u>
42.01%	33.63%	38.22%
\$ 73,747	\$ 160,212	\$ 9,541
116.68%	70.90%	795.00%
3.50%	3.15%	2.45%
2.75%	2.75%	2.75%
3.00%	3.00%	3.00%

ORANGE COUNTY FIRE AUTHORITY

Extra Help Retirement Plan
A Single-Employer Defined Benefit Pension Plan
As of June 30, 2020
For the Last Ten Fiscal Years (A)

Schedule of Contributions

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
Required employer contributions (contractually determined)	\$ 2,117	\$ 2,481	\$ 2,267	\$ 839
Actual employer contributions	2,117	2,481	2,267	839
Contribution excess (deficiency)	\$ -	\$ -	\$ -	\$ -
Actual contributions as a % of required contributions	100.00%	100.00%	100.00%	100.00%
Covered payroll	\$ 205,340	\$ 205,340	\$ 108,526	\$ 108,526
Actual contributions as a % of covered payroll	1.03%	1.21%	2.09%	0.77%

Notes to Schedule:

(A) GASB Statements No. 67 and No. 68 were implemented during Fiscal Year 2013/14 and Fiscal Year 2014/15, respectively. Additional years will be added as they become available in the future.

(B) Changes in size or composition of plan members:

Inactive; currently receiving benefits	-	-	-	-
Inactive; entitled to but not yet receiving benefits	10	39	47	46
Active	59	41	17	31
Total plan members as of June 30	69	80	64	77

2018	2019	2020
\$ 1,519	\$ 876	1,072
1,519	876	1,072
<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
100.00%	100.00%	100.00%
\$ 73,747	\$ 160,212	\$ 9,541
2.06%	0.55%	11.24%

-	-	-
37	38	38
24	4	1
<u>61</u>	<u>42</u>	<u>39</u>

ORANGE COUNTY FIRE AUTHORITY

Extra Help Retirement Plan
A Single-Employer Defined Benefit Pension Plan
As of June 30, 2020
For the Last Ten Fiscal Years (A)

Schedule of Money Weighted Rate of Return

Fiscal Year Ended June 30	Annual Money-Weighted Rate of Return, Net of	
	Investment Expense	
2014	0.97%	
2015	1.24%	
2016	1.66%	
2017	3.43%	
2018	1.90%	
2019	2.93%	
2020	2.30%	

Notes to Schedule:

(A) GASB Statement No. 67, which requires ten years of history for this schedule, was implemented during Fiscal Year 2013/14. Additional years will be added as they become available in the future.

ORANGE COUNTY FIRE AUTHORITY

Retiree Medical Plan
A Single-Employer Defined Benefit Other Postemployment Benefit (OPEB) Plan
As of June 30, 2020
For the Last Ten Fiscal Years (A)

Schedule of Changes in Net OPEB Liability and Related Ratios

	Fiscal Year Ended June 30		
	2018	2019	2020
Total OPEB liability (TOPEBL):			
Service cost	\$ 7,712,349	\$ 7,989,994	\$ 6,034,031
Interest	10,007,111	10,432,082	10,878,843
Differences between expected and actual experience	-	(2,909,247)	(647,369)
Changes of assumptions	-	(35,431,920)	18,873,824
Benefit payments, including refunds of member contributions	(5,581,055)	(6,803,645)	(7,239,321)
Net change in total pension liability	12,138,405	(26,722,736)	27,900,008
Total OPEB liability - beginning	273,053,476	285,191,881	258,469,145
Total OPEB liability - ending	285,191,881	258,469,145	286,369,153
Plan fiduciary net position (FNP):			
Contributions - employer	1,603,537	4,002,323	2,221,564
Contributions - plan members	2,379,665	2,259,947	2,111,158
Net investment income (loss)	5,116,794	(728,045)	5,301,391
Benefit payments, including refunds of member contributions	(5,581,055)	(6,803,645)	(7,239,321)
Administrative expense	(27,068)	(30,304)	(21,240)
Net change in plan fiduciary net position	3,491,873	(1,299,724)	2,373,552
Total plan fiduciary net position - beginning	36,839,189	40,331,062	39,031,338
Total plan fiduciary net position - ending	40,331,062	39,031,338	41,404,890
Net OPEB liability (NOPEBL)	<u>\$ 244,860,819</u>	<u>\$ 219,437,807</u>	<u>\$ 244,964,263</u>
Plan FNP as a % of the TOPEBL	14.14%	15.10%	14.46%
Covered employee payroll	\$ 68,808,979	\$ 66,697,012	\$ 63,351,188
NOPEBL as a % of covered employee payroll	355.86%	329.01%	386.68%

Notes to Schedule:

(A) GASB Statements No. 74, No. 75, and No. 85 were implemented during Fiscal Year 2017/18. Additional years will be added as they become available in the future.

(B) Applicable measurement date	12/31/2017	12/31/2018	12/31/2019
(C) Change in actuarial assumptions:			
Discount rate	3.60%	4.17%	3.31%
Twenty-year bond rate	3.44%	4.11%	3.26%
Crossover year	2028	2025	2025
Mortality rate scale	MP-2015	MP-2018	MP-2019
Pre-retirement turnover	0.00% - 5.00%	0.20% - 11.00%	0.20% - 11.00%

ORANGE COUNTY FIRE AUTHORITY

Retiree Medical Plan
A Single-Employer Defined Benefit Other Postemployment Benefit (OPEB) Plan
As of June 30, 2020
For the Last Ten Fiscal Years (A)

Schedule of Contributions

	Fiscal Year Ended June 30		
	2018	2019	2020
Required employer contributions (contractually determined) (B)	\$ 3,941,686	\$ 1,974,029	\$ 2,252,945
Actual employer contributions	3,941,686	1,974,029	2,252,945
Contribution excess (deficiency)	\$ -	\$ -	\$ -
Actual contributions as a % of contractually required contributions	100.00%	100.00%	100.00%
Covered employee payroll	\$ 65,955,614	\$ 62,958,049	\$ 59,454,055
Actual contributions as a % of covered employee payroll	5.98%	3.14%	3.79%

Notes to Schedule:

(A) GASB Statements No. 74, No. 75, and No. 85 were implemented during Fiscal Year 2017/18. Additional years will be added as they become available in the future.

(B) Required, contractually determined employer contributions include: (1) cash contributions per Section 5 of the Health Plan Agreement between OCFA and the Orange County Professional Firefighters Association; (2) cash contributions paid directly to retirees outside of the trust per the Retiree Medical Plan; and (3) the implicit subsidy in accordance with Memorandums of Understanding between OCFA and its labor groups requiring that OCFA contribute toward the payment of health care premiums on behalf of eligible retirees.

(C) Changes in size or composition of plan members:

	As of June 30		
	2018	2019	2020
Retiree Medical Plan (Hired Prior to January 1, 2007):			
Inactive; currently receiving benefits	738	781	817
Inactive; entitled to but no yet receiving benefits	41	39	36
Active	511	457	419
Subtotal	1,290	1,277	1,272
PEMHCA Eligible Employees (Hired on or After January 1, 2007):			
Inactive; currently receiving benefits	1	1	4
Active	763	821	1,008
Subtotal	764	822	1,012
Total Plan Members as of June 30:			
Inactive; currently receiving benefits	739	782	821
Inactive; entitled to but no yet receiving benefits	41	39	36
Active	1,274	1,278	1,427
Total	2,054	2,099	2,284

ORANGE COUNTY FIRE AUTHORITY

Retiree Medical Plan
A Single-Employer Defined Benefit Other Postemployment Benefit (OPEB) Plan
As of June 30, 2020
For the Last Ten Fiscal Years (A)

Schedule of Money Weighted Rate of Return

Fiscal Year Ended June 30	As Related to Plan Year Ended December 31	Annual Money-Weighted Rate of Return, Net of Investment
		Expense
2018	2017	14.74%
2019	2018	-1.31%
2020	2019	14.81%

Notes to Schedule:

(A) GASB Statement No. 74 was implemented during Fiscal Year 2017/18. Additional years will be added as they become available in the future.



Orange County Fire Authority Safety Message

Burn Safety (Part 3 of 3)

(Continued from Page 36)



In 2018, roughly 70,000 people went to the emergency room because of contact burns. About one-third of these patients were children under the age of 5.

Safety Tips

A burn is damage to the skin caused by heat. Burns and scalds can occur from certain tools, appliances, hot water, or the sun. Every 60 seconds, someone in the United States sustains a burn serious enough to require treatment.

Burn Prevention Tips

- ✓ Create a safety zone of at least 3 feet around hot objects or appliances.
- ✓ Do not leave hot objects unattended and unplug tools when not in use.
- ✓ Keep hot objects away from counter edges and out of the reach of children.

Supplementary Schedules



Girls Empowerment Camp
March 7, 2020

Major Governmental Funds

Capital Projects Funds

Communications and Information Systems

This fund is used to account for the significant acquisition, improvement, or replacement of specialized communications and information technology systems and/or equipment.

Fire Apparatus

This fund is used to account for the significant acquisition, improvement, or replacement of fire apparatus, including vehicles, trailers, and helicopters.

Fire Stations and Facilities

This fund is used to account for the significant acquisition, improvement, replacement, or construction of fire stations and facilities.

ORANGE COUNTY FIRE AUTHORITY
Communications and Information Systems
Budgetary Comparison Schedule
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	2020			2019
	Budget Amounts		Actual	Variance with Final Budget Positive (Negative)
	Original	Final	Amounts	Actual Amounts
Budgetary fund balance, July 1	\$ 7,907,713	\$ 7,907,713	\$ 7,907,713	\$ -
Resources (inflows):				
Use of money and property	91,948	119,948	132,392	12,444
Transfers in	-	-	-	-
Total resources (inflows)	91,948	119,948	132,392	12,444
Amounts available for appropriations	7,999,661	8,027,661	8,040,105	12,444
Charges to appropriation (outflows):				
Services and supplies	1,142,727	2,384,745	573,225	1,811,520
Capital outlay	1,613,216	2,899,588	1,237,967	1,661,621
Total charges to appropriations	2,755,943	5,284,333	1,811,192	3,473,141
Budgetary fund balance, June 30	\$ 5,243,718	\$ 2,743,328	\$ 6,228,913	\$ 3,485,585

ORANGE COUNTY FIRE AUTHORITY
Fire Apparatus
Budgetary Comparison Schedule
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	2020			2019
	Budget Amounts		Actual	Variance with Final Budget Positive (Negative)
	Original	Final	Amounts	Actual Amounts
Budgetary fund balance, July 1	\$ 11,631,823	\$ 11,631,823	\$ 11,631,823	\$ -
Resources (inflows):				
Charges for services	1,750,537	1,750,537	1,750,537	-
Use of money and property	434,978	286,978	339,613	52,635
Transfers in	8,000,000	8,000,000	8,000,000	-
Total resources (inflows)	10,185,515	10,037,515	10,090,150	52,635
Amounts available for appropriations	21,817,338	21,669,338	21,721,973	52,635
Charges to appropriation (outflows):				
Capital outlay	15,274,467	21,078,413	2,731,444	18,346,969
Principal retirement	-	-	-	-
Interest and fiscal charges	-	-	-	-
Total charges to appropriations	15,274,467	21,078,413	2,731,444	18,346,969
Budgetary fund balance, June 30	\$ 6,542,871	\$ 590,925	\$ 18,990,529	\$ 18,399,604

ORANGE COUNTY FIRE AUTHORITY
Fire Stations and Facilities
Budgetary Comparison Schedule
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	2020			2019
	Budget Amounts		Actual	Variance with Final Budget Positive (Negative)
	Original	Final	Amounts	Actual Amounts
Budgetary fund balance, July 1	\$ 25,942,605	\$ 25,942,605	\$ 25,942,605	\$ -
Resources (inflows):				
Use of money and property	385,115	300,115	344,906	44,791
Developer contributions	-	635,400	679,800	44,400
Total resources (inflows)	385,115	935,515	1,024,706	89,191
Amounts available for appropriations	26,327,720	26,878,120	26,967,311	89,191
Charges to appropriation (outflows):				
Services and supplies	533,351	783,351	761,453	21,898
Capital outlay	8,907,023	9,273,729	577,932	8,695,797
Transfers out	8,000,000	8,000,000	8,000,000	-
Total charges to appropriations	17,440,374	18,057,080	9,339,385	8,717,695
Budgetary fund balance, June 30	\$ 8,887,346	\$ 8,821,040	\$ 17,627,926	\$ 8,806,886

Major Governmental Funds

“Sub-Fund” Components of General Fund

The following “sub-funds” are have been combined and consolidated in order to report a single General Fund for financial statement presentation. Descriptions of each “sub-fund” component are identified below.

General Operating Fund

This sub-fund is used to account for all operating activities not accounted for in another sub-fund.

General Fund Capital Improvement Program (CIP)

This sub-fund is used to account for financial activity associated with maintenance and improvement projects that are considered “capital in nature” but do not meet the criterial to be included in a Capital Projects Fund.

Structural Fire Entitlement

This sub-fund is used to account for service enhancement funds of over-funded Structural Fire Fund members.

Self Insurance

This sub-fund is used to account the workers’ compensation self-insurance program.

Settlement Agreement

This sub-fund is used to account for the activities of a Settlement Agreement between OCFA and the City of Irvine to provide various provisions benefiting the citizens of Orange County and enhancing services provided throughout OCFA’s jurisdiction, including a Joint Police-Fire Training Facility, a Drone Program, Bi-Directional Amplifiers, training of Irvine Police Department Emergency Medical Technicians, a Public Safety Community Emergency Response Team Coordinator in the City of Irvine, and pension funding through a Section 115 Trust.

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Balance Sheet
June 30, 2020
(With Comparative Data for Prior Year)

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance	Settlement Agreement	Eliminations	Total General Fund	
							2020	2019
Assets:								
Cash and investments	\$ 15,673,569	\$ 6,409,806	\$ 1,336,170	\$ 99,323,270	\$ 21,411,693	\$ -	\$ 144,154,508	\$ 132,646,495
Accounts receivable, net	2,566,137	-	-	-	-	-	2,566,137	3,875,095
Accrued interest receivable	82,851	-	1,586	153,270	-	-	237,707	364,028
Prepaid costs and other assets	42,624,291	93,436	-	-	-	-	42,717,727	36,758,935
Due from other governments, net	16,765,308	-	-	-	-	-	16,765,308	11,461,876
Restricted cash and investments	-	-	-	-	2,121,417	-	2,121,417	-
Total assets	\$ 77,712,156	\$ 6,503,242	\$ 1,337,756	\$ 99,476,540	\$ 23,533,110	\$ -	\$ 208,562,804	\$ 185,106,429
Liabilities:								
Accounts payable	\$ 4,523,991	\$ 239,768	\$ 49,484	\$ 477,541	\$ 1,034	\$ -	\$ 5,291,818	\$ 5,220,369
Accrued liabilities	10,980,091	-	-	-	-	-	10,980,091	10,183,314
Unearned revenue	574,002	-	-	-	-	-	574,002	29,120
Due to other governments	106,037	-	-	-	-	-	106,037	298,186
Total liabilities	16,184,121	239,768	49,484	477,541	1,034	-	16,951,948	15,730,989
Deferred inflows of resources:								
Unavailable revenue	1,022,603	-	-	-	-	-	1,022,603	650,814
Total deferred inflows of resources	1,022,603	-	-	-	-	-	1,022,603	650,814
Fund balances:								
Nonspendable prepaid costs	42,607,136	93,436	-	-	-	-	42,700,572	36,732,385
Restricted:								
Various departments	4,148,316	-	-	-	-	-	4,148,316	3,874,815
Communications/ IT projects	-	-	-	-	-	-	-	12,012
Section 115 pension trust	-	-	-	-	2,120,383	-	2,120,383	-
Committed to SFF cities enhancements	-	-	1,288,272	-	-	-	1,288,272	1,338,850
Assigned:								
Capital improvement program	-	5,123,124	-	-	-	-	5,123,124	3,408,234
Workers' compensation	-	-	-	98,998,999	-	-	98,998,999	88,772,530
Various departments	724,170	15,230	-	-	-	-	739,400	1,391,734
Facilities projects	83,568	-	-	-	-	-	83,568	216,020
Communications/ IT projects	-	359,144	-	-	-	-	359,144	175,111
Construction projects	-	672,540	-	-	-	-	672,540	122,265
Unassigned	12,942,242	-	-	-	21,411,693	-	34,353,935	32,680,670
Total fund balances	60,505,432	6,263,474	1,288,272	98,998,999	23,532,076	-	190,588,253	168,724,626
Total liabilities, deferred inflows of resources, and fund balances	\$ 77,712,156	\$ 6,503,242	\$ 1,337,756	\$ 99,476,540	\$ 23,533,110	\$ -	\$ 208,562,804	\$ 185,106,429

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Schedule of Revenues, Expenditures and Changes in Fund Balances
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance	Settlement Agreement	Eliminations	Total General Fund	
							2020	2019
Revenues:								
Taxes	\$ 277,721,815	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 277,721,815	\$ 264,267,387
Intergovernmental	41,258,003	-	-	-	-	-	41,258,003	28,521,605
Charges for services	136,890,975	-	-	19,573,944	-	(19,573,944)	136,890,975	112,272,830
Use of money and property	1,464,960	-	24,846	1,722,978	494,085	(895,508)	2,811,361	3,277,839
Miscellaneous	6,251,167	5,401	-	-	-	-	6,256,568	1,428,134
Total revenues	<u>463,586,920</u>	<u>5,401</u>	<u>24,846</u>	<u>21,296,922</u>	<u>494,085</u>	<u>(20,469,452)</u>	<u>464,938,722</u>	<u>409,767,795</u>
Expenditures:								
Current - public safety:								
Salaries and benefits	394,606,091	-	-	-	-	(19,573,944)	375,032,147	346,953,705
Services and supplies	51,058,637	1,832,584	75,424	12,340,122	630,009	-	65,936,776	48,487,512
Capital outlay	1,641,148	1,601,592	-	-	-	-	3,242,740	2,030,019
Debt service:								
Interest and fiscal charges	<u>1,221,148</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(895,508)</u>	<u>325,640</u>	<u>321,241</u>
Total expenditures	<u>448,527,024</u>	<u>3,434,176</u>	<u>75,424</u>	<u>12,340,122</u>	<u>630,009</u>	<u>(20,469,452)</u>	<u>444,537,303</u>	<u>397,792,477</u>
Excess (deficiency) of revenues over (under) expenditures	<u>15,059,896</u>	<u>(3,428,775)</u>	<u>(50,578)</u>	<u>8,956,800</u>	<u>(135,924)</u>	<u>-</u>	<u>20,401,419</u>	<u>11,975,318</u>
Other financing sources (uses):								
Transfers in	507,495	5,907,542	-	-	24,175,495	(30,590,532)	-	-
Transfers out	(30,083,037)	-	-	-	(507,495)	30,590,532	-	(2,150,000)
Sale of capital assets	142,044	-	-	-	-	-	142,044	22,548
Insurance recoveries	<u>50,495</u>	<u>-</u>	<u>-</u>	<u>1,269,669</u>	<u>-</u>	<u>-</u>	<u>1,320,164</u>	<u>775,470</u>
Total other financing sources (uses)	<u>(29,383,003)</u>	<u>5,907,542</u>	<u>-</u>	<u>1,269,669</u>	<u>23,668,000</u>	<u>-</u>	<u>1,462,208</u>	<u>(1,351,982)</u>
Net change in fund balances	<u>(14,323,107)</u>	<u>2,478,767</u>	<u>(50,578)</u>	<u>10,226,469</u>	<u>23,532,076</u>	<u>-</u>	<u>21,863,627</u>	<u>10,623,336</u>
Fund balances, beginning of year	<u>74,828,539</u>	<u>3,784,707</u>	<u>1,338,850</u>	<u>88,772,530</u>	<u>-</u>	<u>-</u>	<u>168,724,626</u>	<u>158,101,290</u>
Fund balances, end of year	<u>\$ 60,505,432</u>	<u>\$ 6,263,474</u>	<u>\$ 1,288,272</u>	<u>\$ 98,998,999</u>	<u>\$ 23,532,076</u>	<u>\$ -</u>	<u>\$ 190,588,253</u>	<u>\$ 168,724,626</u>

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Original Budget
Year ended June 30, 2020

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance	Settlement Agreement	Eliminations	Total General Fund 2020
Budgetary fund balance, July 1	\$ 74,828,539	\$ 3,784,707	\$ 1,338,850	\$ 88,772,530	\$ -	\$ -	\$ 168,724,626
Resources (inflows):							
Taxes	272,047,362	-	-	-	-	-	272,047,362
Intergovernmental	19,961,585	-	-	-	-	-	19,961,585
Charges for services	136,507,014	-	-	17,855,023	-	(17,855,023)	136,507,014
Use of money and property	1,170,026	-	17,945	2,084,251	357,402	(25,666)	3,603,958
Miscellaneous	980,758	-	-	-	-	-	980,758
Transfers in	-	4,900,000	-	-	23,668,000	(28,568,000)	-
Sale of capital assets	48,027	-	-	-	-	-	48,027
Total resources (inflows)	<u>430,714,772</u>	<u>4,900,000</u>	<u>17,945</u>	<u>19,939,274</u>	<u>24,025,402</u>	<u>(46,448,689)</u>	<u>433,148,704</u>
Amounts available for appropriations	<u>505,543,311</u>	<u>8,684,707</u>	<u>1,356,795</u>	<u>108,711,804</u>	<u>24,025,402</u>	<u>(46,448,689)</u>	<u>601,873,330</u>
Charges to appropriation (outflows):							
Salaries and benefits	385,812,740	-	-	-	-	(17,855,023)	367,957,717
Services and supplies	36,040,328	3,577,528	971,617	11,459,428	2,168,000	-	54,216,901
Capital outlay	1,323,926	3,686,460	-	-	-	-	5,010,386
Interest and fiscal charges	35,000	-	-	-	-	(25,666)	9,334
Transfers out	28,568,000	-	-	-	-	(28,568,000)	-
Total charges to appropriations	<u>451,779,994</u>	<u>7,263,988</u>	<u>971,617</u>	<u>11,459,428</u>	<u>2,168,000</u>	<u>(46,448,689)</u>	<u>427,194,338</u>
Budgetary fund balance, June 30	<u>\$ 53,763,317</u>	<u>\$ 1,420,719</u>	<u>\$ 385,178</u>	<u>\$ 97,252,376</u>	<u>\$ 21,857,402</u>	<u>\$ -</u>	<u>\$ 174,678,992</u>

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Final Budget
Year ended June 30, 2020

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance	Settlement Agreement	Eliminations	Total General Fund 2020
Budgetary fund balance, July 1	\$ 74,828,539	\$ 3,784,707	\$ 1,338,850	\$ 88,772,530	\$ -	\$ -	\$ 168,724,626
Resources (inflows):							
Taxes	274,312,362	-	-	-	-	-	274,312,362
Intergovernmental	45,809,560	-	-	-	-	-	45,809,560
Charges for services	136,033,917	-	-	19,573,944	-	(19,573,944)	136,033,917
Use of money and property	1,306,026	-	21,945	1,461,251	322,402	(895,508)	2,216,116
Miscellaneous	6,336,757	-	-	-	-	-	6,336,757
Transfers in	507,495	5,907,542	-	-	24,175,495	(30,590,532)	-
Sale of capital assets	48,027	-	-	-	-	-	48,027
Insurance recoveries	-	-	-	996,183	-	-	996,183
Total resources (inflows)	<u>464,354,144</u>	<u>5,907,542</u>	<u>21,945</u>	<u>22,031,378</u>	<u>24,497,897</u>	<u>(51,059,984)</u>	<u>465,752,922</u>
Amounts available for appropriations	<u>539,182,683</u>	<u>9,692,249</u>	<u>1,360,795</u>	<u>110,803,908</u>	<u>24,497,897</u>	<u>(51,059,984)</u>	<u>634,477,548</u>
Charges to appropriations (outflows):							
Salaries and benefits	400,620,875	-	-	-	-	(19,573,944)	381,046,931
Services and supplies	61,808,929	4,694,004	1,301,444	11,599,428	2,178,000	-	81,581,805
Capital outlay	4,948,863	4,516,268	-	-	-	-	9,465,131
Interest and fiscal charges	1,221,148	-	-	-	-	(895,508)	325,640
Transfers out	30,083,037	-	-	-	507,495	(30,590,532)	-
Total charges to appropriations	<u>498,682,852</u>	<u>9,210,272</u>	<u>1,301,444</u>	<u>11,599,428</u>	<u>2,685,495</u>	<u>(51,059,984)</u>	<u>472,419,507</u>
Budgetary fund balance, June 30	<u>\$ 40,499,831</u>	<u>\$ 481,977</u>	<u>\$ 59,351</u>	<u>\$ 99,204,480</u>	<u>\$ 21,812,402</u>	<u>\$ -</u>	<u>\$ 162,058,041</u>



Orange County Fire Authority Safety Message

Extreme Heat Safety (Part 1 of 3)



The most common types of heat related illnesses are heat cramps, heat exhaustion, and heat stroke. Conditions resulting from extreme heat can result in illness, injury, or even death.

Safety Tips

In extreme heat and high humidity, evaporation is slowed and the body must work harder to maintain a normal temperature. Below are some safety tips and recommendations for how you can prepare for extreme heat waves, ensuring you and your family stay safe.

If the Weather Is Extremely Hot

- ✓ Stay indoors as much as possible and limit exposure to the sun.
- ✓ Avoid strenuous work or activities during the warmest part of the day. Use a buddy system when working in extreme heat and take frequent breaks.
- ✓ Eat well-balanced, light, and regular meals.
- ✓ Drink plenty of water.
- ✓ Limit intake of alcoholic beverages and sugary drinks.
- ✓ Dress in loose-fitting, lightweight, and light-colored clothes.
- ✓ Protect your face and head by wearing a wide-brimmed hat.

(Continued on Page 110)

Fiduciary Funds

Pension and Other Employee Benefit Trust Funds

Extra Help Retirement Plan

OCFA administers a single-employer, defined benefit pension plan that provides retirement benefits for OCFA's less than half-time and extra help employees hired prior to July 1, 2018. Plan assets are accounted for in the Extra Help Retirement fiduciary fund.

Retiree Medical Plan

OCFA provides a single-employer, defined benefit plan for OCFA's full-time and part-time employees hired prior to January 1, 2007, which provides a monthly grant toward the cost of retirees' health insurance coverage. Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by the Orange County Employees Retirement System (OCERS).

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Pension and Other Employee Benefit Trust Funds
Combining Schedule of Fiduciary Net Position
June 30, 2020
(With Comparative Data for Prior Year)

	Extra Help Retirement	Retiree Medical Plan	Total Pension and Other Employee Benefit Trust Funds	
			2020	2019
Assets:				
Cash and investments:				
Local Agency Investment Fund:				
Domestic fixed income	\$ 46,934	\$ -	\$ 46,934	\$ 57,548
Pooled amounts held in trust with OCERS	-	42,242,955	42,242,955	39,397,934
Total cash and investments	46,934	42,242,955	42,289,889	39,455,482
Receivables:				
Other receivables	-	12,302	12,302	8,423
Total assets	46,934	42,255,257	42,302,191	39,463,905
Liabilities:				
Accrued liabilities	-	850,367	850,367	375,019
Total liabilities	-	850,367	850,367	375,019
Net position restricted for:				
Pensions	46,934	-	46,934	57,548
Postemployment benefits other than pensions	-	41,404,890	41,404,890	39,031,338
Total net position	\$ 46,934	\$ 41,404,890	\$ 41,451,824	\$ 39,088,886

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Pension and Other Employee Benefit Trust Funds
Combining Schedule of Changes in Fiduciary Net Position
Year ended June 30, 2020
(With Comparative Data for Prior Year)

	Extra Help Retirement	Retiree Medical Plan	Total Pension and Other Employee Benefit Trust Funds	
			2020	2019
Additions:				
Contributions:				
Employer	\$ 1,072	\$ 2,221,564	\$ 2,222,636	\$ 4,003,199
Plan members	891	2,111,158	2,112,049	2,268,990
Total contributions	1,963	4,332,722	4,334,685	6,272,189
Net investment income:				
Total investment income (loss)	1,191	5,565,786	5,566,977	(455,999)
Investment fees and expenses	-	(264,395)	(264,395)	(270,315)
Total net investment income (loss)	1,191	5,301,391	5,302,582	(726,314)
Total additions	3,154	9,634,113	9,637,267	5,545,875
Deductions:				
Benefits and refunds paid to plan members and beneficiaries	13,768	7,239,321	7,253,089	6,820,071
Administrative expenses	-	21,240	21,240	30,304
Total deductions	13,768	7,260,561	7,274,329	6,850,375
Change in net position	(10,614)	2,373,552	2,362,938	(1,304,500)
Net position, beginning of year	57,548	39,031,338	39,088,886	40,393,386
Net position, end of year	\$ 46,934	\$ 41,404,890	\$ 41,451,824	\$ 39,088,886



Orange County Fire Authority Safety Message

Extreme Heat Safety (Part 2 of 3)

(Continued from Page 106)



The most common types of heat related illnesses are heat cramps, heat exhaustion, and heat stroke. Conditions resulting from extreme heat can result in illness, injury, or even death.

Safety Tips

In extreme heat and high humidity, evaporation is slowed and the body must work harder to maintain a normal temperature. Below are some safety tips and recommendations for how you can prepare for extreme heat waves, ensuring you and your family stay safe.

If the Weather Is Extremely Hot, (Continued)

- ✓ Check on co-workers, friends, and neighbors who do not have air conditioning and who spend much of their time alone.
- ✓ Watch for signs and signals of sunburn, heat cramps, heat exhaustion, and heat stroke. Those most at risk include infants, young children, adults over 65 years of age, and those with chronic conditions.
- ✓ Protect your skin by using “broad spectrum” or “UVA/UVB protection” sunscreen.
- ✓ Limit outdoor activities to the coolest part of the day, usually before 10am and after 3pm. Rest often in the shade if you are outside.
- ✓ Never leave infants, young children, or pets in a hot car.

(Continued on Page 112)

Statistical Section



Academy 50 Graduation
May 21, 2020

ORANGE COUNTY FIRE AUTHORITY

Overview of the Statistical Section

The Statistical Section provides a context for understanding information in the financial statements, note disclosures and required supplementary information and how that information relates to the OCFA's overall financial health. The detailed schedules presented in the Statistical Section are grouped into five sections pertaining to financial trends, revenue capacity, debt capacity, demographic and economic information, and operating information.

Financial Trends Information – These schedules contain trend information to assist the reader in understanding how the OCFA's financial performance and well-being have changed over time.

Revenue Capacity Information – These schedules contain information to assist the reader in assessing property taxes, the OCFA's most significant local revenue source.

Debt Capacity Information – These schedules present information to assist the reader in assessing the affordability of the OCFA's current levels of outstanding debt and its ability to issue additional debt in the future.

Demographic and Economic Information – These schedules offer demographic and economic indicators to assist the reader in understanding the environment within which the OCFA's financial activities take place.

Operating Information – These schedules contain data to assist the reader in understanding how the information in the financial report relates to the services provided by and the activities performed by the OCFA.



Orange County Fire Authority Safety Message

Extreme Heat Safety (Part 3 of 3)

(Continued from Page 110)



The most common types of heat related illnesses are heat cramps, heat exhaustion, and heat stroke. Conditions resulting from extreme heat can result in illness, injury, or even death.

Safety Tips

In extreme heat and high humidity, evaporation is slowed and the body must work harder to maintain a normal temperature. Below are some safety tips and recommendations for how you can prepare for extreme heat waves, ensuring you and your family stay safe.

To Prepare for Extreme Heat, You Should:

- ✓ Install window air conditioners snugly; insulate if necessary.
- ✓ Check air-conditioning ducts for proper insulation.
- ✓ Install temporary window reflectors to reflect heat back outside.
- ✓ Weather-strip doors and door sills to keep cool air in.
- ✓ Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers as they can reduce the heat that enters a home by up to 80 percent.

ORANGE COUNTY FIRE AUTHORITY

Financial Trends Information

Net Position by Component – Presents net position of the OCFA's governmental activities by the three individual components of net position for each of the last ten fiscal years.

Changes in Net Position – Presents the changes in net position of governmental activities for each of the last ten fiscal years.

Fund Balances of Governmental Funds – Presents information on the fund balances of the General Fund and the aggregate of all other governmental funds for each of the last ten fiscal years.

Changes in Fund Balances of Governmental Funds – Presents information on the changes in fund balances for total governmental funds for each of the last ten fiscal years, including the ratio of debt service expenditures to noncapital expenditures.

ORANGE COUNTY FIRE AUTHORITY
Net Position by Component
Last Ten Fiscal Years
(accrual basis of accounting)

	Fiscal Year Ended June 30			
	2011	2012	2013	2014
Governmental activities:				
Net investment in capital assets	\$ 186,297,543	\$ 183,584,385	\$ 181,363,364	\$ 180,917,654
Restricted	1,627,233	3,252,969	1,690,858	1,810,134
Unrestricted	<u>99,704,595</u>	<u>81,450,846</u>	<u>74,510,482</u>	<u>61,026,827</u>
Total governmental activities net position	<u>\$ 287,629,371</u>	<u>\$ 268,288,200</u>	<u>\$ 257,564,704</u>	<u>\$ 243,754,615</u>

SOURCE: OCFA Comprehensive Annual Financial Reports

NOTES:

(1) GASB Statement No. 68 was implemented during Fiscal Year 2014/15, which required a \$362 million restatement to beginning net position in order to fully reflect net OCFA's net pension liabilities. This adjustment contributed to an overall negative balance in unrestricted net position as of June 30, 2015 and thereafter.

(2) GASB Statements No. 74, 75, and 85 were implemented during Fiscal Year 2017/18, which required a \$153 million restatement to beginning net position in order to fully reflect net OCFA's net OPEB liabilities. This adjustment contributed to the increased negative balance in unrestricted net position.

2015	2016	2017	2018	2019	2020
\$ 190,800,116	\$ 187,910,677	\$ 192,430,467	\$ 207,951,822	\$ 218,642,679	\$ 217,317,435
1,840,561	2,881,910	3,897,614	3,953,884	4,278,304	6,660,176
<u>(361,765,050)</u>	<u>(351,456,505)</u>	<u>(373,102,128)</u>	<u>(511,359,152)</u>	<u>(520,991,297)</u>	<u>(498,642,409)</u>
(1)			(2)		
<u>\$ (169,124,373)</u>	<u>\$ (160,663,918)</u>	<u>\$ (176,774,047)</u>	<u>\$ (299,453,446)</u>	<u>\$ (298,070,314)</u>	<u>\$ (274,664,798)</u>

ORANGE COUNTY FIRE AUTHORITY
Changes in Net Position
Last Ten Fiscal Years
(accrual basis of accounting)

Governmental Activities	Fiscal Year Ended June 30			
	2011	2012	2013	2014
Expenses - public safety:				
Salaries and benefits	\$ 221,031,439	\$ 240,084,607	\$ 264,067,489	\$ 266,764,367
Services and supplies	30,736,034	37,069,099	45,879,501	47,912,808
Depreciation and amortization	8,970,508	9,300,853	9,793,491	9,612,453
Interest on long-term debt	677,910	494,014	367,701	311,327
Total program expenses	<u>261,415,891</u>	<u>286,948,573</u>	<u>320,108,182</u>	<u>324,600,955</u>
Program revenues - public safety:				
Charges for services	61,975,963	76,347,126	102,875,410	106,874,513
Operating grants and contributions	5,963,648	6,580,681	19,523,853	10,339,966
Capital grants and contributions	395,180	3,926,275	2,811,180	1,462,540
Total program revenues	<u>68,334,791</u>	<u>86,854,082</u>	<u>125,210,443</u>	<u>118,677,019</u>
Net program revenues (expenses)	<u>(193,081,100)</u>	<u>(200,094,491)</u>	<u>(194,897,739)</u>	<u>(205,923,936)</u>
General revenues:				
Property taxes	177,181,086	177,728,290	181,720,253	190,873,689
Investment income	611,408	524,602	(136,493)	823,010
Gain on disposal of capital assets	39,803	79,705	11,924	21,834
Miscellaneous	835,021	2,420,723	4,329,603	1,200,195
Total general revenues	<u>178,667,318</u>	<u>180,753,320</u>	<u>185,925,287</u>	<u>192,918,728</u>
Changes in net position	<u>\$ (14,413,782)</u>	<u>\$ (19,341,171)</u>	<u>\$ (8,972,452)</u>	<u>\$ (13,005,208)</u>
		(1)		

SOURCE: OCFA Comprehensive Annual Financial Reports

NOTES:

(1) The City of Santa Ana became a member city of OCFA during Fiscal Year 2011/12 (April 2012).

(2) GASB Statement No. 68 was implemented during Fiscal Year 2014/15, which required that pension expense be adjusted annually to fully reflect the accrual-based cost incurred during the year. OCFA recognized an increase to its pension expense totaling \$39.9 million during the year ended June 30, 2015. That amount is included within salaries and benefits.

(3) GASB Statements No. 74, 75 and 85 were implemented during Fiscal Year 2017/18, which required that OPEB expense be adjusted annually to fully reflect the accrual-based cost incurred during the year. During the year ended June 30, 2018, OCFA recognized a decrease to its salary and benefits totaling \$7.2 million due to the implementation of these GASB statements.

(4) The City of Garden Grove became a member city of OCFA during Fiscal Year 2019/20 (August 2019).

2015	2016	2017	2018	2019	2020
\$ 335,419,737	\$ 316,292,785	\$ 327,515,166	\$ 323,845,042	\$ 339,249,853	\$ 352,573,221
46,073,201	35,127,573	52,819,125	57,275,465	62,877,930	84,600,263
9,050,195	9,267,982	9,512,777	10,084,196	10,531,098	12,137,499
582,565	917,320	133,239	70,751	11,444	-
<u>391,125,698</u>	<u>361,605,660</u>	<u>389,980,307</u>	<u>391,275,454</u>	<u>412,670,325</u>	<u>449,310,983</u>
113,150,325	117,263,679	121,875,157	132,634,280	128,320,646	156,740,363
11,410,019	12,165,015	11,992,438	13,920,686	15,454,060	29,275,482
9,182,195	3,331,088	1,040,129	16,875,139	454,200	3,850,481
<u>133,742,539</u>	<u>132,759,782</u>	<u>134,907,724</u>	<u>163,430,105</u>	<u>144,228,906</u>	<u>189,866,326</u>
<u>(257,383,159)</u>	<u>(228,845,878)</u>	<u>(255,072,583)</u>	<u>(227,845,349)</u>	<u>(268,441,419)</u>	<u>(259,444,657)</u>
205,141,237	219,840,417	232,832,758	250,326,172	264,267,387	277,721,815
839,864	1,654,065	990,851	2,188,611	4,236,800	3,302,632
63,953	6,000	657,944	719,372	-	12,641
<u>1,235,004</u>	<u>2,823,503</u>	<u>4,480,901</u>	<u>5,089,603</u>	<u>1,320,364</u>	<u>1,813,085</u>
<u>207,280,058</u>	<u>224,323,985</u>	<u>238,962,454</u>	<u>258,323,758</u>	<u>269,824,551</u>	<u>282,850,173</u>
<u>\$ (50,103,101)</u>	<u>\$ (4,521,893)</u>	<u>\$ (16,110,129)</u>	<u>\$ 30,478,409</u>	<u>\$ 1,383,132</u>	<u>\$ 23,405,516</u>
(2)			(3)		(4)

ORANGE COUNTY FIRE AUTHORITY
Fund Balances of Governmental Funds
Last Ten Fiscal Years
(modified accrual basis of accounting)

	Fiscal Year Ended June 30			
	2011	2012	2013	2014
General Fund:				
Nonspendable	\$ 23,186,680	\$ 22,756,709	\$ 26,727,849	\$ 30,560,638
Restricted	111,980	1,699,787	137,676	766,094
Committed	797,935	1,372,789	1,268,160	784,617
Assigned	35,550,989	34,715,397	53,668,608	61,236,092
Unassigned	25,592,531	25,751,128	25,782,851	22,156,848
Total General Fund	<u>\$ 85,240,115</u>	<u>\$ 86,295,810</u>	<u>\$ 107,585,144</u>	<u>\$ 115,504,289</u>
All other governmental funds:				
Nonspendable	\$ 478,449	\$ 405,815	\$ 352,318	\$ 284,349
Restricted	1,515,253	1,553,182	1,553,182	1,044,040
Assigned	78,023,210	74,037,637	67,317,090	64,340,833
Total all other governmental funds	<u>\$ 80,016,912</u>	<u>\$ 75,996,634</u>	<u>\$ 69,222,590</u>	<u>\$ 65,669,222</u>

SOURCE: OCFA Comprehensive Annual Financial Reports

2015	2016	2017	2018	2019	2020
\$ 31,127,148	\$ 36,779,845	\$ 33,750,548	\$ 34,800,682	\$ 36,732,385	\$ 42,700,572
1,307,329	2,348,678	3,364,382	3,420,652	3,886,827	6,268,699
691,265	584,464	549,651	1,496,954	1,338,850	1,288,272
69,282,830	78,922,725	78,346,099	83,030,746	94,085,894	105,976,775
17,864,685	34,421,993	31,346,672	35,352,256	32,680,670	34,353,935
<u>\$ 120,273,257</u>	<u>\$ 153,057,705</u>	<u>\$ 147,357,352</u>	<u>\$ 158,101,290</u>	<u>\$ 168,724,626</u>	<u>\$ 190,588,253</u>
\$ 32,946	\$ -	\$ 4,608	\$ 25,216	\$ 13,725	\$ 4,247
533,232	533,232	533,232	533,232	391,477	391,477
56,050,351	55,779,948	65,015,386	59,924,778	45,076,939	42,451,644
<u>\$ 56,616,529</u>	<u>\$ 56,313,180</u>	<u>\$ 65,553,226</u>	<u>\$ 60,483,226</u>	<u>\$ 45,482,141</u>	<u>\$ 42,847,368</u>

ORANGE COUNTY FIRE AUTHORITY
Changes in Fund Balances of Governmental Funds
Last Ten Fiscal Years
(modified accrual basis of accounting)

	Fiscal Year Ended June 30			
	2011	2012	2013	2014
Revenues:				
Taxes	\$ 177,181,086	\$ 177,728,290	\$ 181,720,253	\$ 190,873,689
Intergovernmental	11,080,619	12,894,882	28,883,649	19,111,811
Charges for services	56,582,867	65,556,905	95,904,052	97,705,183
Use of money and property	822,002	660,621	(20,556)	932,284
Miscellaneous	1,364,034	2,800,466	5,155,759	1,697,087
Developer contributions	43,200	10,140	538,260	1,271,400
Total revenues	<u>247,073,808</u>	<u>259,651,304</u>	<u>312,181,417</u>	<u>311,591,454</u>
Expenditures:				
Current - public safety:				
Salaries and benefits	211,801,889	228,452,010	255,301,913	257,134,030
Services and supplies	28,207,018	30,737,551	32,613,137	40,187,878
Capital outlay	9,899,979	932,034	5,420,102	7,681,418
Debt service:				
Principal retirement	1,911,912	2,139,694	2,162,809	2,219,152
Interest and fiscal charges	890,067	635,351	484,851	421,845
Issuance costs	-	286,599	-	-
Total expenditures	<u>252,710,865</u>	<u>263,183,239</u>	<u>295,982,812</u>	<u>307,644,323</u>
Excess (deficiency) of revenues over (under) expenditures	<u>(5,637,057)</u>	<u>(3,531,935)</u>	<u>16,198,605</u>	<u>3,947,131</u>
Other financing sources (uses):				
Transfers in	4,137,811	-	381,222	5,370,375
Transfers out	(4,137,811)	-	(381,222)	(5,370,375)
Issuance of long-term debt	-	16,756,078	-	-
Refinanced long-term debt	-	(16,377,093)	-	-
Sale of capital assets	391,736	99,272	14,200	57,843
Insurance recoveries	8,405	89,095	53,529	360,803
Total other financing sources (uses)	<u>400,141</u>	<u>567,352</u>	<u>67,729</u>	<u>418,646</u>
Net change in fund balances	<u>\$ (5,236,916)</u>	<u>\$ (2,964,583)</u>	<u>\$ 16,266,334</u>	<u>\$ 4,365,777</u>
Debt service as a percentage of noncapital expenditures	1.2%	1.1%	0.9%	0.9%

SOURCE: OCFA Comprehensive Annual Financial Reports

NOTES:

(A) Beginning in Fiscal Year 2018/19, proceeds from sale of certain non-capital assets were reported as miscellaneous revenue rather than sale of capital assets. Amounts shown on this schedule for previous fiscal years have also been updated to reflect this change and may vary from the amounts originally reported in the financial statements.

2015	2016	2017	2018	2019	2020
\$ 205,141,237	\$ 219,840,417	\$ 232,832,758	\$ 250,326,172	\$ 264,267,387	\$ 277,721,815
23,565,214	25,978,081	29,069,065	37,063,147	28,521,605	41,258,003
102,000,677	103,830,436	106,061,060	108,750,420	113,719,047	138,641,512
841,522	1,671,316	1,257,155	2,576,401	4,558,041	3,628,272
1,701,736	2,800,713	4,611,210	4,594,285	1,428,134	6,256,568 (A)
8,307,207	3,233,082	962,627	3,545,139	454,200	679,800
<u>341,557,593</u>	<u>357,354,045</u>	<u>374,793,875</u>	<u>406,855,564</u>	<u>412,948,414</u>	<u>468,185,970</u>
285,988,997	294,414,084	309,507,433	340,720,267	346,953,705	375,032,147
40,490,370	36,303,618	48,087,618	49,871,973	49,488,301	67,271,454
16,644,798	3,996,650	12,116,937	9,970,652	20,095,072	7,790,083
2,276,963	2,336,279	2,397,140	2,459,589	1,253,718	-
585,501	935,881	400,887	459,924	333,385	325,640
-	-	-	-	-	-
<u>345,986,629</u>	<u>337,986,512</u>	<u>372,510,015</u>	<u>403,482,405</u>	<u>418,124,181</u>	<u>450,419,324</u>
(4,429,036)	19,367,533	2,283,860	3,373,159	(5,175,767)	17,766,646
6,845,320	78,187	33,724,099	-	2,150,000	8,000,000
(6,845,320)	(78,187)	(33,724,099)	-	(2,150,000)	(8,000,000)
-	-	-	-	-	-
-	-	-	-	-	-
112,363	9,930	37,400	844,512	22,548	142,044 (A)
32,948	121,288	1,218,433	1,456,267	775,470	1,320,164
<u>145,311</u>	<u>131,218</u>	<u>1,255,833</u>	<u>2,300,779</u>	<u>798,018</u>	<u>1,462,208</u>
<u>\$ (4,283,725)</u>	<u>\$ 19,498,751</u>	<u>\$ 3,539,693</u>	<u>\$ 5,673,938</u>	<u>\$ (4,377,749)</u>	<u>\$ 19,228,854</u>
0.9%	1.0%	0.8%	0.7%	0.4%	0.1%



Orange County Fire Authority Safety Message

Senior Fall Prevention (Part 1 of 3)



Every 11 seconds, an elderly adult is treated in the emergency room for a fall. Every 19 minutes, an elderly adult dies from a fall.

Safety Tips

Falls are the leading cause of injuries for the elderly community and can greatly reduce their ability to remain independent. Take steps now to protect your health and reduce your fall risk.

Manage Meals, Meds, and Exercise

- ✓ Choose healthy meals and stay hydrated to prevent drops in blood pressure.
- ✓ Review medications with your doctor or pharmacist. Many drugs prescribed for seniors come with fall-risk warnings.
- ✓ Do exercises that will improve your strength and balance such as Tai Chi or Yoga.

(Continued on Page 132)

ORANGE COUNTY FIRE AUTHORITY

Revenue Capacity Information

Assessed Value and Estimated Actual Value of Taxable Property – Presents information on the assessed property values of each city and the unincorporated area within the OCFA’s jurisdiction for each of the last ten fiscal years.

Property Tax Rates of Direct and Overlapping Governments – Presents the County of Orange’s direct property tax rate, as well as the rates of any overlapping governments that are applied to the same revenue base.

Principal Property Tax Payers – Presents information about the OCFA’s ten largest property tax payers for the current fiscal year, as compared to nine fiscal years ago.

Property Tax Levies and Collections – Presents information on the levy and subsequent collection of OCFA’s property taxes for each of the last ten fiscal years.

ORANGE COUNTY FIRE AUTHORITY
Assessed Value (1) and Estimated Actual Value of Taxable Property
Last Ten Fiscal Years
(dollars in thousands)

Jurisdiction	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
Buena Park	\$ 7,478,553	\$ 7,484,717	7,602,927	7,886,342
Garden Grove (4)	n/a	n/a	n/a	n/a
Placentia	4,969,023	5,007,558	5,080,849	5,203,417
San Clemente	12,431,717	12,356,019	12,506,118	12,824,727
Santa Ana (4)	n/a	20,100,864	20,339,779	21,119,683
Seal Beach	4,282,032	4,434,345	4,480,557	4,580,472
Stanton	2,042,112	2,063,293	2,073,752	2,144,270
Tustin	9,419,294	9,378,899	9,502,173	9,732,381
Westminster	6,779,972	6,935,762	7,023,383	7,176,141
Total cash contract cities (3)	47,402,703	67,761,457	68,609,538	70,667,433
Aliso Viejo	7,459,562	7,511,408	7,605,524	7,877,812
Cypress	5,514,794	5,560,190	5,666,354	5,854,809
Dana Point	8,687,748	8,735,352	8,844,364	9,126,750
Irvine	46,538,576	47,136,231	48,646,093	51,002,248
Laguna Hills	5,460,470	5,463,649	5,513,066	5,643,545
Laguna Niguel	11,892,951	11,991,939	12,116,601	12,402,919
Laguna Woods	2,214,363	2,186,990	2,193,624	2,237,288
Lake Forest	10,744,518	10,721,083	10,885,724	11,238,775
La Palma	1,698,469	1,698,169	1,718,007	1,744,907
Los Alamitos	1,616,120	1,603,255	1,638,193	1,674,933
Mission Viejo	13,157,979	13,226,115	13,320,574	13,639,460
Rancho Santa Margarita	6,605,397	6,623,819	6,679,191	6,759,144
San Juan Capistrano	5,817,501	5,799,444	5,833,269	6,039,344
Villa Park	1,353,409	1,372,687	1,398,666	1,466,599
Yorba Linda	10,936,312	11,262,427	11,484,958	11,857,840
Unincorporated	21,485,307	21,509,471	21,332,072	21,915,863
Total SFF jurisdictions (2)	161,183,476	162,402,229	164,876,280	170,482,236
Percentage change from prior year	-0.67%	0.76%	1.52%	3.40%
Total assessed valuation	\$ 208,586,179	\$ 230,163,686	\$ 233,485,818	\$ 241,149,669
Total direct tax rate	0.11%	0.11%	0.11%	0.11%

SOURCE: County of Orange, Auditor-Controller, Assessed Valuations by Fiscal Year

http://acweb1.ocgov.com/ac/txfdr_Civica/av/

NOTES:

- (1) Assessed value is stated at taxable full cash value. These values may include an increased value over the base year for that portion of the city or district which lies within a redevelopment agency.
- (2) Assessed value for these cities is part of the Structural Fire Fund (SFF).
- (3) Cities pay for services on a cash contract basis. Assessed value is shown for comparison only.
- (4) Santa Ana joined OCFA on April 20, 2012. Garden Grove joined OCFA on August 16, 2019.

FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20
8,313,496	8,769,022	9,229,491	9,771,180	10,534,143	11,010,946
n/a	n/a	n/a	n/a	n/a	17,647,291
5,519,085	5,878,473	6,133,423	6,445,280	6,778,269	7,057,342
13,666,851	14,447,434	15,269,878	16,078,965	16,904,336	17,783,910
22,075,383	23,013,226	23,886,126	25,232,515	26,520,241	27,943,961
4,891,060	5,081,691	5,167,629	5,428,187	5,625,920	5,981,331
2,297,508	2,433,266	2,569,937	2,679,870	2,836,469	3,015,953
10,292,805	11,004,027	11,577,792	12,399,614	13,043,122	13,658,894
7,628,669	8,279,644	8,410,335	8,907,507	9,391,194	9,801,405
<u>74,684,857</u>	<u>78,906,783</u>	<u>82,244,611</u>	<u>86,943,118</u>	<u>91,633,694</u>	<u>113,901,033</u>
8,440,740	8,765,964	9,262,105	9,757,603	10,320,678	10,706,653
6,104,218	6,463,650	6,751,019	7,049,085	7,492,895	7,865,560
9,787,132	10,513,667	11,209,516	12,184,560	12,716,978	13,330,883
55,693,885	60,912,694	65,754,243	71,898,708	78,439,756	85,045,012
5,961,947	6,256,109	6,506,374	6,744,152	7,169,367	7,360,865
13,270,851	14,015,647	14,571,803	15,341,994	15,925,158	16,566,379
2,424,736	2,620,217	2,772,774	2,949,710	3,141,574	3,308,199
11,920,081	12,672,969	13,710,657	14,701,561	15,968,847	17,239,225
1,829,353	1,904,950	1,998,105	2,042,167	2,137,829	2,218,935
1,778,110	1,887,771	1,961,259	2,068,339	2,165,016	2,279,998
14,533,544	15,262,434	15,835,376	16,538,595	17,362,619	18,087,505
7,231,597	7,572,862	7,810,951	8,247,183	8,640,697	8,947,481
6,443,224	6,828,239	7,190,143	7,600,135	7,959,762	8,336,034
1,527,255	1,596,806	1,674,085	1,755,259	1,836,352	1,912,173
12,668,130	13,488,124	14,098,053	14,862,265	15,623,191	16,292,118
23,573,390	24,999,336	26,380,370	28,230,720	29,526,544	31,132,442
<u>183,188,193</u>	<u>195,761,439</u>	<u>207,486,833</u>	<u>221,972,036</u>	<u>236,427,263</u>	<u>250,629,462</u>
7.45%	6.86%	5.99%	6.98%	6.51%	6.01%
<u>\$ 257,873,050</u>	<u>\$ 274,668,222</u>	<u>\$ 289,731,444</u>	<u>\$ 308,915,154</u>	<u>\$ 328,060,957</u>	<u>\$ 364,530,495</u>
0.11%	0.11%	0.11%	0.11%	0.11%	0.11%

(5) In 1978, the voters of the State of California passed Proposition 13 which limited property taxes to a total maximum rate of 1% based upon the assessed value of the property being taxed. Each year, the assessed value of property may be increased by an "inflation factor" (limited to a maximum increase of 2%). With few exceptions, property is only re-assessed at the time that it is sold to a new owner. At that point, the new assessed value is reassessed at the purchase price of the property sold. The assessed valuation data shown above represents the only data currently available with respect to the actual market value of taxable property and is subject to the limitations described above.

ORANGE COUNTY FIRE AUTHORITY
Property Tax Rates of Direct and Overlapping Governments
Last Ten Fiscal Years

Fiscal Year Ended June 30	County of Orange (B)			OCFA (B)
	Overlapping	Direct		Direct
	Basic Operating Levy	Debt Service	Total	Basic Operating Levy
2011	1.00000	0.00000	1.00000	0.0011
2012	1.00000	0.00000	1.00000	0.0011
2013	1.00000	0.00000	1.00000	0.0011
2014	1.00000	0.00000	1.00000	0.0011
2015	1.00000	0.00000	1.00000	0.0011
2016	1.00000	0.00000	1.00000	0.0011
2017	1.00000	0.00000	1.00000	0.0011
2018	1.00000	0.00000	1.00000	0.0011
2019	1.00000	0.00000	1.00000	0.0011
2020	1.00000	0.00000	1.00000	0.0011
	(A)	(A)		(C)

SOURCE:

- (A) County of Orange, Auditor-Controller, Tax Rate Books by Fiscal Year
<http://acdcweb01.ocgov.com/about/central-accounting/property-tax-accounting/tax-rate-book>
- (B) Data for the entire County of Orange is not limited to the cities/unincorporated areas served by the Orange County Fire Authority. Data for OCFA is limited to its member cities that are part of the Structural Fire Fund (SFF).
- (C) Direct tax rate calculation per the "Assessed Value and Estimated Actual Value of Taxable Property" schedule included in this report.

NOTE: This schedule presents tax rates per \$100 of assessed/full cash value.

ORANGE COUNTY FIRE AUTHORITY
Principal Property Tax Payers
Current and Nine Years Ago
(Dollars in Thousands)

Property Tax Payer	Fiscal Year 2010/11 (A)			Fiscal Year 2019/20 (B)		
	Actual Taxes		Percent of Total Taxes Levied	Actual Taxes		Percent of Total Taxes Levied
	Levied	Rank		Levied	Rank	
Irvine Company	\$ 65,842	1	1.38%	\$ 81,402	1	1.19%
Irvine Company LLC	\$ 26,654	3	0.56%			
Irvine Apartment Communities	\$ 9,658	5	0.20%			
Irvine Community Development	\$ 6,264	9	0.13%			
	<u>\$ 108,418</u>			<u>\$ 81,402</u>		
Walt Disney Parks & Resorts U.S. (Walt Disney World Co.)	\$ 44,124	2	0.93%	\$ 55,432	2	0.81%
Southern California Edison Company (Edison International)	\$ 24,691	4	0.52%	\$ 48,649	3	0.71%
Five Points Holdings, LLC (Lennar)				\$ 27,188	4	0.40%
Sempra Energy (Southern California Gas Company)				\$ 13,288	5	0.19%
United Laguna Hills Mutual (Laguna Woods)	\$ 6,756	8	0.14%	\$ 10,673	6	0.16%
AT&T (Pacific Bell Telephone Company)	\$ 7,290	6	0.15%	\$ 9,448	7	0.14%
BEX Portfolio, Inc.				\$ 8,588	8	0.13%
Heritage Fields El Toro, LLC	\$ 7,288	7	0.15%			
Anbang Insurance Group Company (Ritz-Carlton, Montage)				\$ 6,876	9	0.10%
Bella Terra Associates, LLC	\$ 4,681	10	0.10%	\$ 6,229	10	0.09%

SOURCE:

(A) OCFA Comprehensive Annual Financial Report for Fiscal Year 2010/11

(B) County of Orange, Treasurer-Tax Collector, Tax Collector Top 20 Secured Taxpayer List for Fiscal Year 2018/19 (<http://www.ttc.ocgov.com/rptstats/stats>). Taxpayers are grouped under a parent company, if identifiable.

NOTE:

This schedule presents data for the entire County of Orange and is not limited to the cities/unincorporated areas served by the Orange County Fire Authority.

ORANGE COUNTY FIRE AUTHORITY
Property Tax Levies and Collections
Last Ten Fiscal Years
(dollars in thousands)

Fiscal Year Ended June 30	Taxes Levied for the Fiscal Year	Collected within the Fiscal Year of Levy		Collection of Prior Year Levies		Collection of Penalties and Interest		Total Collection to Date		Collection of Property Tax Increment Pass-Through (1)	
		Amount	% of Levy	Teeter Plan	Delinquencies and Other	Delinquency Penalties	Interest	Total Amounts Collected	% of Levy	RDA	H&S
2011	\$178,812	\$172,543	96.5%	\$ 2,510	\$ 246	\$ 79	\$ 58	\$175,436	98.1%	\$ -	\$ -
2012	\$179,564	\$173,169	96.4%	\$ 2,324	\$ 262	\$ 79	\$ 46	\$175,880	97.9%	\$ 3,468	\$ -
2013	\$184,029	\$178,299	96.9%	\$ 1,674	\$ 157	\$ 30	\$ 37	\$180,197	97.9%	\$ 6,248	\$ 10,269
2014	\$192,876	\$187,828	97.4%	\$ 1,371	\$ 49	\$ 32	\$ 37	\$189,317	98.2%	\$ 6,958	\$ 208
2015	\$207,775	\$202,356	97.4%	\$ 1,336	\$ 50	\$ 32	\$ 38	\$203,812	98.1%	\$ 8,110	\$ 605
2016	\$224,452	\$216,219	96.3%	\$ 1,368	\$ 157	\$ 38	\$ 73	\$217,855	97.1%	\$ 9,180	\$ 639
2017	\$237,082	\$229,934	97.0%	\$ 1,329	\$ 140	\$ 35	\$ 105	\$231,543	97.7%	\$ 9,237	\$ 662
2018	\$253,371	\$246,607	97.3%	\$ 1,461	\$ 156	\$ 36	\$ 189	\$248,449	98.1%	\$ 11,095	\$ 694
2019	\$267,727	\$262,561	98.1%	\$ 1,737	\$ 149	\$ 42	\$ 248	\$264,737	98.9%	\$ 9,627	\$ 732
2020	\$280,282	\$273,453	97.6%	\$ 2,202	\$ 165	\$ 47	\$ 342	\$276,209	98.5%	\$ 13,256	\$ 774

SOURCE:

County of Orange, Auditor-Controller, Tax Ledger Detail by Fiscal Year

Tax Ledger Selection C84 Orange County Fire Authority

http://tax.ocgov.com/acledger/choice_eGov.asp

NOTES:

- (1) Upon dissolution of California redevelopment agencies during Fiscal Year 2011/12, property tax increment formerly remitted to OCFA by its member city redevelopment agencies was instead deposited into the newly formed Redevelopment Property Tax Trust Fund (RPTTF) from which the Auditor/Controller made disbursements on behalf of the successor agencies. There is no tax levy associated with these collections; thus, they have been excluded from the "% of levy collected" calculations.

ORANGE COUNTY FIRE AUTHORITY

Debt Capacity Information

Ratios of Outstanding Debt by Type – Presents information on the OCFA’s total outstanding debt for each of the last ten fiscal years, including the ratio of outstanding debt to median family income and the calculation of outstanding debt per capita.

Ratios of General Bonded Debt Outstanding – Presents information on net bonded debt that will be repaid by general OCFA resources for each of the last ten fiscal years, including the ratio of outstanding debt to total assessed property value and the calculation of net bonded debt per capita.

The following schedules are not included in OCFA’s CAFR:

Computation of Legal Debt Margin – OCFA is not subject to a legal debt margin.

Pledged Revenue Coverage – Debt of OCFA is not secured by a pledged revenue stream.

Computation of Direct and Overlapping Bonded Debt – OCFA is not obligated for any direct, bonded debt.

ORANGE COUNTY FIRE AUTHORITY
Ratios of Outstanding Debt by Type
Last Ten Fiscal Years
(dollars in thousands)

	Governmental Activities (A)		(B)	(C)			
Fiscal Year Ended June 30	Capital Lease Purchase Agreements	Total Outstanding Debt	County of Orange Median Household Income	Debt as a Percentage of Household Income	Population (OCFA Jurisdiction Only)	Debt per Capita	
2011	\$ 16,866	\$ 16,866	\$84	20078.6%	1,355	\$12	
2012	\$ 15,106	\$ 15,106	\$85	17771.8%	1,694	\$9	(1)
2013	\$ 12,943	\$ 12,943	\$84	15408.3%	1,712	\$8	
2014	\$ 10,724	\$ 10,724	\$85	12616.5%	1,734	\$6	
2015	\$ 8,447	\$ 8,447	\$86	9822.1%	1,755	\$5	
2016	\$ 6,110	\$ 6,110	\$85	7188.2%	1,784	\$3	
2017	\$ 3,713	\$ 3,713	\$88	4219.3%	1,793	\$2	
2018	\$ 1,254	\$ 1,254	\$93	1348.4%	1,808	\$1	
2019	\$ -	\$ -	\$98	0.0%	1,808	\$0	
2020	\$ -	\$ -	\$103	0.0%	1,966	\$0	(2)

SOURCES:

- (A) Details regarding OCFA's outstanding debt can be found in the notes to the financial statements.
- (B) U.S. Department of Housing and Urban Development, Median Family Income Documentation System by Fiscal Year (estimate) <http://www.huduser.org/portal/datasets/il.html>
- (C) California Department of Finance, Population and Housing Estimates as of January 1 <http://www.dof.ca.gov/forecasgin/demographics/estimates>

NOTE:

- (1) The population data presented in this schedule includes only the cities and unincorporated county areas served by the OCFA. Since the City of Santa Ana became a member of the OCFA in April 2012, its population data is not included with population totals prior to Fiscal Year 2011/12. The Fiscal Year 2011/12 population total includes 327,731 for the City of Santa Ana.
- (2) The population data presented in this schedule includes only the cities and unincorporated county areas served by the OCFA. Since the City of Garden Grove became a member of the OCFA in August 2019, its population data is not included with population totals prior to Fiscal Year 2019/20. The Fiscal Year 2019/20 population total includes 174,801 for the City of Garden Grove.

ORANGE COUNTY FIRE AUTHORITY
Ratios of General Bonded Debt Outstanding
Last Ten Fiscal Years
(amounts in thousands)

(A)		(B)							
Fiscal Year Ended June 30	Population (OCFA Jurisdiction Only)	Assessed Value	Gross Bonded Debt	Amounts Available in		Net Bonded Debt	Ratio of Net Bonded Debt to Assessed Value	Net Bonded Debt per Capita	
				Debt Service Fund					
2011	1,355	\$ 208,586,179	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2012	1,694	\$ 230,163,686	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2013	1,712	\$ 233,485,818	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2014	1,734	\$ 241,149,669	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2015	1,755	\$ 257,873,050	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2016	1,784	\$ 274,668,222	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2017	1,793	\$ 289,731,444	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2018	1,808	\$ 308,915,154	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2019	1,808	\$ 328,060,957	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-
2020	1,966	\$ 364,530,495	\$ -	\$ -	\$ -	\$ -	0.00%	\$ -	-

SOURCES:

- (A) California Department of Finance, Population and Housing Estimates as of January 1
<http://www.dof.ca.gov/forecasting/demographics/estimates>
- (B) County of Orange, Auditor-Controller, Assessed Valuations by Fiscal Year
http://acweb1.ocgov.com/ac/txfdr_Civica/av/



Orange County Fire Authority Safety Message

Senior Fall Prevention (Part 2 of 3)

(Continued from Page 122)



Every 11 seconds, an elderly adult is treated in the emergency room for a fall. Every 19 minutes, an elderly adult dies from a fall.

Safety Tips

Falls are the leading cause of injuries for the elderly community and can greatly reduce their ability to remain independent. Take steps now to protect your health and reduce your fall risk.

Make Your Home Safer

- ✓ Add grab bars outside the shower or tub and near the toilet.
- ✓ Place non-slip mats in the bathtub and on the shower floor.
- ✓ Keep traffic areas clear by removing shoes, clothing, books, electrical cords, or other items you may trip over.
- ✓ Make sure bathrooms, hallways, and stairs are well lit.
- ✓ Replace throw rugs with non-slip rugs. Use non-skid pads under rugs to add stability.

(Continued on Page 152)

ORANGE COUNTY FIRE AUTHORITY

Demographic and Economic Information

Demographic and Economic Indicators – Presents information regarding population, personal income, per capita income and the unemployment rate for the County of Orange for each of the last ten fiscal years.

Population and Housing Statistics – Presents information on population and housing units of each city and the unincorporated area within the OCFA's jurisdiction for the current fiscal year, as compared to nine fiscal years ago.

Principal Employers – Presents information about the ten largest employers within the County of Orange's jurisdiction for the current fiscal year, as compared to nine fiscal years ago.

ORANGE COUNTY FIRE AUTHORITY
Demographic and Economic Indicators
Last Ten Fiscal Years
(amounts in thousands)

Fiscal Year Ended June 30	(A)	(B)		(C)
	Population (Orange County)	Total Personal Income	Per Capita Income	Unemployment Rate
2011	3,030	\$ 154,486,000	\$ 50,985	9.4
2012	3,056	\$ 169,584,000	\$ 55,492	8.3
2013	3,082	\$ 166,370,000	\$ 53,981	6.9
2014	3,114	\$ 179,141,000	\$ 57,528	5.6
2015	3,147	\$ 193,081,000	\$ 61,354	4.6
2016	3,183	\$ 200,027,000	\$ 62,842	4.3
2017	3,194	\$ 208,950,000	\$ 65,420	3.7
2018	3,221	\$ 220,685,000	\$ 68,514	3.3
2019	3,222	\$ 230,299,000	\$ 71,477	2.9
2020	3,194	\$ 226,531,000	\$ 70,924	13.7

SOURCES:

- (A) California Department of Finance
Population and Housing Estimates Table E-5, As of January 1
<http://www.dof.ca.gov/forecasting/demographics/estimates>
- (B) Chapman University Economic & Business Review
Annual History and Forecasts
Years 2015 - 2019 have been updated as of June 30, 2020.
Most recent year (2020) is a forecasted estimate.
- (C) Bureau of Labor Statistics (<https://www.bls.gov/data/>), Local Area Unemployment Statistics,
Anaheim-Santa Ana-Irvine, CA Metropolitan Statistical Area. Figures reflect revised inputs, re-
estimation, and new statewide control, if applicable. Unemployment rate is the monthly rate
for June of the applicable fiscal year (i.e., June 2020 for FY 2019/20). The amount reported for
the most recent fiscal year is based on preliminary BLS data.

NOTE:

Data presented on this schedule is for the County of Orange and is not limited to the cities/county unincorporated areas served by the OCFA.

ORANGE COUNTY FIRE AUTHORITY
Population and Housing Statistics
Current and Nine Years Ago

Jurisdiction	Population			Housing Units		
	2011	2020	% Change	2011	2020	% Change
Aliso Viejo	48,320	50,044	3.6%	19,026	20,192	6.1%
Buena Park	80,868	81,998	1.4%	24,679	25,134	1.8%
Cypress	47,907	49,272	2.8%	16,072	16,631	3.5%
Dana Point	33,429	33,146	-0.8%	15,944	16,172	1.4%
Garden Grove (B)	171,327	174,801	2.0%	47,787	48,257	1.0%
Irvine	219,156	281,707	28.5%	87,126	108,822	24.9%
Laguna Hills	30,410	31,508	3.6%	11,049	11,298	2.3%
Laguna Niguel	63,228	65,316	3.3%	25,363	26,236	3.4%
Laguna Woods	16,224	16,243	0.1%	13,016	13,079	0.5%
Lake Forest	77,490	84,711	9.3%	27,115	30,244	11.5%
La Palma	15,596	15,492	-0.7%	5,223	5,240	0.3%
Los Alamitos	11,474	11,567	0.8%	4,356	4,414	1.3%
Mission Viejo	93,483	94,267	0.8%	34,227	34,959	2.1%
Placentia	50,665	51,494	1.6%	16,883	17,184	1.8%
Rancho Santa Margarita	47,947	48,793	1.8%	17,260	17,346	0.5%
San Clemente	63,743	64,581	1.3%	26,006	26,573	2.2%
San Juan Capistrano	34,734	36,318	4.6%	11,966	12,558	4.9%
Santa Ana (A)	325,228	335,052	3.0%	76,914	78,761	2.4%
Seal Beach	24,215	24,992	3.2%	14,558	14,535	-0.2%
Stanton	38,317	39,077	2.0%	11,300	11,448	1.3%
Tustin	75,781	80,382	6.1%	26,509	28,257	6.6%
Villa Park	5,823	5,766	-1.0%	2,016	2,031	0.7%
Westminster	89,937	92,421	2.8%	27,669	28,002	1.2%
Yorba Linda	64,855	68,650	5.9%	22,477	23,795	5.9%
Unincorporated	121,488	128,421	5.7%	39,968	42,433	6.2%
Total OCFA, adjusted (A, B)	1,851,645	1,966,019	6.2%	624,509	663,601	6.3%
Total non-OCFA	1,178,214	1,228,313	4.3%	430,117	447,820	4.1%
Total Orange County	3,029,859	3,194,332	5.4%	1,054,626	1,111,421	5.4%
Total OCFA, adjusted	1,851,645			624,509		
Less: Garden Grove and Santa Ana totals	(496,555)			(124,701)		
Total OCFA, actual as reported nine years ago	1,355,090	1,966,019	45.1%	499,808	663,601	32.8%

SOURCE: California Department of Finance, Population and Housing Estimates Table E-5

As of January 1, 2011 and 2019 <http://www.dof.ca.gov/forecasting/demographics/estimates>

NOTE:

- (A) Before Santa Ana became an OCFA member city in April 2012, the city's data was included in the "non-OCFA" total. However, Santa Ana's 2011 data has been identified separately for comparison purposes.
- (B) Before Garden Grove became an OCFA member city in August 2019, the city's data was included in the "non-OCFA" total. However, Garden Grove's 2011 data has been identified separately for comparison purposes.

ORANGE COUNTY FIRE AUTHORITY
Principal Employers
Current and Nine Years Ago

Employer	Fiscal Year 2010/11			Fiscal Year 2019/20		
	Number of Employees	Rank	Percent of Total Employment	Number of Employees	Rank	Percent of Total Employment
Walt Disney Co.	20,000	2	1.27%	30,000	1	1.86%
University of California, Irvine	20,650	1	1.31%	23,884	2	1.48%
County of Orange	17,324	3	1.10%	18,313	3	1.14%
St. Joseph Health System	11,965	4	0.76%	14,000	4	0.87%
Kaiser Permanente	5,397	9	0.34%	8,178	5	0.51%
Albertsons				7,670	6	0.48%
Target Corporation	5,325	10	0.34%	6,300	7	0.39%
Walmart				6,200	8	0.38%
Hoag Memorial Hospital				6,100	9	0.38%
Boeing Co.	8,060	5	0.51%	6,000	10	0.37%
Yum! Brands Inc.	6,500	7	0.41%			
Supervalu Inc.	5,900	8	0.37%			
Bank of America Corporation	6,500	6	0.41%			

SOURCE:

County of Orange Comprehensive Annual Financial Report for Fiscal Year 2018/19

For years ended June 30, 2019 and 2010

Amounts are reported one year in arrears due to availability of data at time of publication of this document.

<http://acdcweb01.ocgov.com/reports/cafrreports/>

NOTE:

Data presented on this schedule is for the County of Orange and is not limited to the cities/county unincorporated areas served by the OCFA.

ORANGE COUNTY FIRE AUTHORITY

Operating Information

Authorized Positions by Unit – Presents the number of authorized positions by unit for each of the last ten fiscal years.

Frozen Positions by Unit – Presents the number of frozen positions by unit as of June 30 for each of the last ten fiscal years.

Jurisdiction Information – Presents information on the OCFA's member agencies, square mile area served, population served, and number of fire stations for each of the last ten fiscal years.

Incidents by Major Category Definitions – Provides OCFA's definitions for categories of major incidents.

Incidents by Type – Presents the number of OCFA major incidents by category for each of the last ten fiscal years.

Incidents by Member Agency – Presents the number of OCFA major incidents by member agency for each of the last ten fiscal years.

Capital Equipment by Category – Presents the historical cost and quantity of capital equipment by category for each of the last ten fiscal years.

Capital Vehicles by Category – Presents the historical cost and quantity of capital vehicles by category for each of the last ten fiscal years.

Map of Division/Battalion Boundaries and Station Locations – This Orange county map identifies the areas included within OCFA's jurisdiction, the boundaries of its divisions/battalions, and the locations of all OCFA fire stations.

List of Stations by Member Agency – Presents a list of OCFA fire stations and street addresses by member agency.

Description of the Organization, Programs and Service Delivery – Provides an overview of the activities and responsibilities carried out by each of the OCFA's departments.

ORANGE COUNTY FIRE AUTHORITY
Authorized Positions by Unit
Last Ten Fiscal Years

Unit	As of June 30									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Firefighter	863	1,010	1,011	1,011	1,011	1,023	1,023	1,048	1,153	1,152
Fire Management	41	45	45	45	45	45	45	45	52	53
General	196	203	205	205	205	213	213	211	252	248
Supervisory Management	28	28	28	27	27	27	27	30	32	33
Supported Employment	4	4	4	4	4	4	4	4	4	4
Administrative Management	42	42	43	44	44	43	43	43	41	46
Executive Management	7	7	7	7	8	8	8	7	10	10
Subtotal	1,181	1,339	1,343	1,343	1,344	1,363	1,363	1,388	1,544	1,546
Board Director	-	-	-	-	-	-	-	25	25	25
Total authorized positions	<u>1,181</u>	<u>1,339</u>	<u>1,343</u>	<u>1,343</u>	<u>1,344</u>	<u>1,363</u>	<u>1,363</u>	<u>1,413</u>	<u>1,569</u>	<u>1,571</u>
Funded positions:										
General Operating Fund	1,086	1,245	1,238	1,240	1,244	1,274	1,284	1,400	1,566	1,541
Total funded positions	<u>1,086</u>	<u>1,245</u>	<u>1,238</u>	<u>1,240</u>	<u>1,244</u>	<u>1,274</u>	<u>1,284</u>	<u>1,400</u>	<u>1,566</u>	<u>1,541</u>
Unfunded positions:										
Unbudgeted positions	-	1	3	3	3	3	3	-	-	-
Frozen	95	93	102	100	97	86	76	13	3	30
Total unfunded positions	<u>95</u>	<u>94</u>	<u>105</u>	<u>103</u>	<u>100</u>	<u>89</u>	<u>79</u>	<u>13</u>	<u>3</u>	<u>30</u>
Total authorized positions	<u>1,181</u>	<u>1,339</u>	<u>1,343</u>	<u>1,343</u>	<u>1,344</u>	<u>1,363</u>	<u>1,363</u>	<u>1,413</u>	<u>1,569</u>	<u>1,571</u>
Increase (decrease) from prior fiscal year:										
Total funded positions	(10)	159	(7)	2	4	30	10	116	166	(25)
Total unfunded positions	9	(1)	11	(2)	(3)	(11)	(10)	(66)	(10)	27
Total authorized positions	<u>(1)</u>	<u>158</u>	<u>4</u>	<u>-</u>	<u>1</u>	<u>19</u>	<u>-</u>	<u>50</u>	<u>156</u>	<u>2</u>
		(1)						(2)	(3)	

SOURCE: OCFA Treasury Division, Budget Section

NOTES:

- (1) The net increase of total authorized positions during Fiscal Year 2011/12 included 163 authorized positions for employees transitioning from the City of Santa Ana (147 Firefighter Unit, 4 Fire Management Unit, 11 General Unit, and 1 Supervisory Management Unit).
- (2) During Fiscal Year 2017/18, Board Members were converted into employee positions and added to the authorized position control (25 positions).
- (3) The net increase of total authorized positions during Fiscal Year 2018/19 included 99 authorized positions for employees transitioning from the City of Garden Grove (74 Firefighter Unit, 3 Fire Management Unit, 22 General Unit).

ORANGE COUNTY FIRE AUTHORITY
Frozen Positions by Unit
Last Ten Fiscal Years

Unit / Position	As of June 30									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Firefighter Unit:										
Fire Apparatus Engineer	18	18	24	24	24	21	20	-	-	6
Fire Captain	24	24	27	27	27	24	22	3	1	7
Fire Pilot	-	-	-	1	1	1	1	-	-	-
Firefighter	18	18	18	18	18	18	18	-	-	15
Heavy Fire Equipment Operator	1	1	1	1	1	1	1	-	-	-
Total Firefighter Unit	61	61	70	71	71	65	62	3	1	28
Fire Management Unit:										
Fire Battalion Chief	2	2	2	2	2	2	1	-	-	-
Total Fire Management Unit	2	2	2	2	2	2	1	-	-	-
General Unit:										
Accountant	1	1	1	1	1	1	-	-	-	-
Administrative Assistant	3	5	5	5	5	4	1	1	-	-
Assistant Purchasing Agent	1	1	1	-	-	-	-	-	-	-
Business Analyst	-	-	-	1	1	1	-	-	-	-
Executive Assistant	1	-	-	-	-	-	-	-	-	-
Fire Equipment Technician	1	1	1	1	1	1	-	-	-	-
Fire Prevention Analyst	5	4	4	4	4	4	4	2	-	-
Fire Prevention Specialist	1	2	2	2	-	-	-	-	-	-
Human Resources Analyst	1	1	1	1	1	-	-	-	-	-
Management Assistant	1	1	1	-	-	-	-	-	-	-
Office Services Specialist	2	2	2	3	3	-	-	-	1	1
Project Specialist, Improvement	1	-	-	-	-	-	-	-	-	-
Public Relations Specialist	1	-	-	-	-	-	-	-	-	-
Senior Fire Equipment Technician	1	1	-	-	-	-	-	-	-	-
Senior Fire Prevention Specialist	4	3	3	2	2	2	2	2	-	-
WEFIT Coordinator	-	-	1	-	-	-	-	-	-	-
Total General Unit	24	22	22	20	18	13	7	5	1	1
Supervisory Management Unit:										
Accounting Support Supervisor	1	-	-	-	-	-	-	-	-	-
Assistant Fire Marshal	1	1	1	1	1	1	1	1	-	-
Information Technology Supervisor	1	1	1	1	1	-	-	-	-	-
Senior Fire Communications Supervisor	-	-	-	-	-	-	-	1	-	-
Total Supervisory Management Unit	3	2	2	2	2	1	1	2	-	-
Administrative Management Unit:										
Assistant IT Manager	-	-	-	-	-	1	1	1	-	-
Benefits Services Manager	1	1	1	-	-	-	1	-	-	-
Management Analyst	1	1	1	1	1	1	1	1	-	-
ODT Program Manager	1	1	1	1	-	-	-	-	1	1
Senior Accountant	1	2	2	2	2	2	2	1	-	-
Senior Human Resources Analyst	1	1	1	1	1	1	-	-	-	-
Total Administrative Management Unit	5	6	6	5	4	5	5	3	1	1
Total frozen positions	95	93	102	100	97	86	76	13	3	30

SOURCE: Orange County Fire Authority, Treasury Division, Budget Section

ORANGE COUNTY FIRE AUTHORITY
Jurisdiction Information
Last Ten Fiscal Years

Fiscal Year Ended June 30	(A) Number of Member Agencies	(B) Square Mile Area Served	(C) Population Served	(A) Number of Stations	New and Closed Station(s)	
					+/-	Description
2011	23	548	1,355,090	61	(1)	Closed Station 3 (County/Sunset Beach)
2012	24	576	1,694,010	71	10	New Stations 70 through 79 (Santa Ana)
2013	24	571	1,712,234	71	-	
2014	24	571	1,733,563	71	-	
2015	24	571	1,755,436	71	-	
2016	24	576	1,783,505	72	1	New Station 56 (County/Rancho Mission Viejo)
2017	24	576	1,793,040	72	-	
2018	24	576	1,807,862	72	-	
2019	24	576	1,807,560	72	-	
2020	25	593	1,966,019	79	7	New Stations 80 through 86 (Garden Grove)

SOURCES:

- (A) Orange County Fire Authority, Clerk of the Authority
- (B) Orange County Fire Authority, Geographic Information Systems
- (C) California Department of Finance, Population and Housing Estimates as of January 1
<http://www.dof.ca.gov/forecasting/demographics/estimates>

NOTE: The City of Santa Ana became an OCFA member city in Fiscal Year 2011/12.
The City of Garden Grove became an OCFA member city in Fiscal Year 2019/20.

ORANGE COUNTY FIRE AUTHORITY
Incidents by Major Category Definitions

Fire: This category includes fire responses, even if the fire has been extinguished upon arrival. This category also includes combustion explosions with no resulting fire. Examples of this category include structure fires, rubbish fires, dumpster fires and vehicle fires.

Rupture/Explosion: This category includes vessels or containers that suffer failure or near failure due to extreme pressure from either an outside source, such as direct heating, or internally due to a cooling system failure or over-filling, such as a propane tank. Examples of this category also include explosions from bombs, dynamite or similar explosives.

Rescue/EMS: This category includes all medical aids, illness and heart attacks, as well as traffic accidents and missing persons.

Hazardous Condition: This category includes Hazardous Materials incidents; electrical wire arcing; suspected drug labs; or situations where there is a perceived problem that may prove to be a potential emergency.

Service Call: This category includes incidents for persons in distress, such as a lock-in or lock-out of a vehicle or dwelling creating an emergency situation or critical need, and smoke or odor problems. This category would also include moving units from one station to another to provide area coverage.

Good Intent: This category includes incidents that are cleared prior to arrival, such as a medical aid where the injured party has left the scene, or the initial information indicated that there were injuries and upon arrival no persons were injured. This category may also include calls where the informant has mistaken steam for smoke.

False Alarm: Some examples of the incidents in this category are malicious mischief calls, system malfunctions and the accidental tripping of an interior alarm sensor or device.

Natural Disaster: This category includes incidents that are not normal occurrences, such as earthquakes, lightning strikes, hurricanes and other weather or natural events.

SOURCE: Orange County Fire Authority, Command & Emergency Planning Division

ORANGE COUNTY FIRE AUTHORITY
Incidents by Type
Last Ten Fiscal Years

Fiscal Year Ended June 30 (1)	Fire	Rupture/ Explosion	Rescue/ EMS	Hazardous Condition	Service Call	Good Intent	False Alarm	Natural Disaster	Other	Total	
2011	1,541	158	61,870	1,011	6,157	12,897	4,293	51	249	88,227	
2012	1,635	157	66,383	965	6,457	12,802	4,065	4	192	92,660	(2)
2013	2,004	219	80,167	1,100	7,753	14,786	5,710	1	149	111,889	(2)
2014	1,936	220	83,762	1,254	6,978	12,411	6,238	6	220	113,025	
2015	1,898	229	94,740	1,220	6,996	12,046	6,515	5	345	123,994	
2016	2,338	197	102,994	1,314	7,921	13,261	6,575	6	9	134,615	
2017	2,372	192	106,679	1,466	7,819	14,207	6,644	37	67	139,483	
2018	2,651	147	110,327	1,163	7,955	14,010	6,060	3	68	142,384	
2019	2,161	154	111,044	1,322	6,948	14,353	7,016	13	589	143,600	
2020	2,313	226	114,758	1,348	7,978	18,532	7,482	12	137	152,786	(3)

SOURCE:
Orange County Fire Authority, Command & Emergency Planning Division

NOTES:

(1) Response statistics are normally reported on a calendar year basis in other reports. These statistics have been reported on the fiscal year basis, July through June.

(2) The City of Santa Ana joined the OCFA effective April 20, 2012. Fiscal Year 2011/12 data includes the portion of the fiscal year during which the city was a member of OCFA. Fiscal Year 2012/13 data includes the first full year of Santa Ana activity.

(3) The City of Garden Grove joined the OCFA effective August 16, 2019. Fiscal Year 2019/20 data is reported only for the portion of the fiscal year during which the city was a member of OCFA.

ORANGE COUNTY FIRE AUTHORITY
Incidents by Member Agency
Last Ten Fiscal Years

Member	Fiscal Year Ended June 30 (1)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Aliso Viejo	2,094	2,071	2,226	2,194	2,420	2,511	2,654	2,810	2,871	3,022
Buena Park	5,652	5,836	5,849	6,057	6,569	7,016	7,053	7,193	7,242	7,175
Cypress	2,490	2,556	2,699	2,633	2,833	3,013	3,145	3,238	3,292	3,215
Dana Point	2,870	2,772	2,950	2,925	3,297	3,291	3,663	3,717	3,399	3,343
Garden Grove (3)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11,288
Irvine	12,214	11,969	12,485	12,896	13,875	14,688	15,967	16,325	16,797	16,481
La Palma	778	750	808	925	1,036	1,059	1,212	1,303	1,282	1,224
Laguna Hills	2,614	2,542	2,579	2,584	2,675	2,887	3,078	3,303	3,303	3,122
Laguna Niguel	3,255	3,358	3,476	3,685	3,584	3,861	4,054	3,947	4,192	4,421
Laguna Woods	4,560	4,717	4,748	4,306	4,847	5,319	5,636	5,281	5,342	4,967
Lake Forest	4,334	4,230	4,459	4,297	4,651	4,995	5,474	5,333	5,335	5,378
Los Alamitos	1,055	1,101	1,199	1,123	1,254	1,380	1,360	1,477	1,468	1,405
Mission Viejo	6,379	6,355	6,760	6,791	7,072	7,508	7,777	8,041	7,989	7,718
Placentia	2,837	2,714	2,846	2,806	2,981	3,132	3,325	3,609	3,564	3,616
Rancho Santa Margarita	2,015	2,105	1,983	2,111	2,254	2,415	2,447	2,542	2,366	2,521
San Clemente	3,813	3,999	4,187	4,334	4,668	5,080	5,311	5,239	5,069	4,999
San Juan Capistrano	2,580	2,617	2,701	2,934	3,164	3,629	3,899	3,931	3,786	3,571
Santa Ana (2)	n/a	3,654	18,915	19,303	21,465	23,455	25,074	26,707	27,518	27,335
Seal Beach	3,375	3,617	3,571	3,343	3,783	4,882	4,753	4,591	4,216	4,300
Stanton	2,597	2,660	2,878	2,879	3,113	3,413	3,396	3,284	3,343	3,645
Tustin	4,055	4,196	4,582	4,614	5,205	5,406	5,419	5,470	5,748	5,623
Villa Park	388	363	392	338	378	452	475	448	480	469
Westminster	5,882	6,012	6,486	6,201	6,880	7,442	7,560	7,702	7,772	7,945
Yorba Linda	2,928	3,125	3,277	3,185	3,547	3,716	3,747	4,059	4,146	4,023
Unincorporated	6,087	5,991	6,312	6,073	6,496	6,719	7,390	7,437	7,573	7,788
	84,852	89,310	108,368	108,537	118,047	127,269	133,869	136,987	138,093	148,594
Auto/Mutual Aid Given	3,375	3,350	3,521	4,488	5,947	7,346	5,614	5,397	5,507	4,192
Total	88,227	92,660	111,889	113,025	123,994	134,615	139,483	142,384	143,600	152,786

Orange County Fire Authority, Command & Emergency Planning Division

NOTES:

(1) Response statistics are normally reported on a calendar year basis in other reports. These statistics have been reported on the fiscal year basis, July through June.

(2) The City of Santa Ana joined the OCFA effective April 20, 2012. Fiscal Year 2011/12 data is reported only for the portion of the fiscal year during which the city was a member of OCFA. Fiscal Year 2012/13 data includes the first full year of Santa Ana activity.

(3) The City of Garden Grove joined the OCFA effective August 16, 2019. Fiscal Year 2019/20 data is reported only for the portion of the fiscal year during which the city was a member of OCFA.

ORANGE COUNTY FIRE AUTHORITY
Capital Equipment by Category
Last Ten Fiscal Years

Category	June 30, 2011		June 30, 2012	
	Historical Cost	Quantity	Historical Cost	Quantity
Air fill station	\$ 53,179	2	\$ 53,179	2
Aboveground storage tank	678,014	8	678,014	8
Audio visual equipment	754,726	23	716,800	18
Boat	23,412	2	31,515	4
Breathing Apparatus	-	-	-	-
Camera, thermal imaging	1,223,802	91	1,251,757	104
Camera, other	41,577	3	11,171	1
Communications equipment	1,488,213	41	1,512,740	42
Computer	82,126	5	82,126	5
Defibrillator	1,149,858	90	1,528,398	105
Exercise equipment	35,622	5	35,622	5
Fleet equipment	170,441	16	172,042	16
Forklift	88,098	2	93,177	3
Generator	510,078	23	504,562	22
GPS equipment (AVL regional interoperability projects)	1,391,000	2	1,391,000	2
Hazmat equipment	248,782	20	337,453	24
Helicopters and improvements:				
Helicopter	28,854,977	4	28,854,977	4
Helicopter, rotor blades	319,149	4	319,149	4
Helicopter, fast fin kits	-	-	-	-
Helicopter, flight director	-	-	-	-
Helicopter, multi-band radio upgrade	-	-	-	-
Helicopter equipment	770,085	42	778,885	42
Hydraulic tool	195,119	31	368,216	55
Kitchen equipment	33,403	4	33,403	4
Laptop	56,632	9	44,108	7
Manikin	67,452	11	67,452	11
Miscellaneous equipment	559,561	35	597,167	40
Mobile radio project (FY 2003/04 - FY 2004/05)	2,424,594	1	2,424,594	1
Mobile radio	116,008	18	107,671	17
Mobile radio, mobile data computer (MDC)	-	-	-	-
Network equipment	967,465	28	804,981	27
Office equipment	648,440	8	648,440	8
Portable building	226,348	13	226,348	13
Portable radio	25,640	5	25,640	5
Printer	77,218	7	72,039	7
Projector	25,838	4	10,372	2
Router	37,405	4	37,405	4
Scanner	-	-	-	-
Search equipment	204,105	14	163,944	11
Server	1,049,533	82	1,027,950	81
Software	7,068,488	55	7,074,050	55
Switch	282,393	16	282,393	16
Tablet	-	-	-	-
Tent	122,237	12	122,237	12
Trailer	423,376	16	437,742	16
Workstation	1,641,243	25	1,641,243	25
	<u>\$ 54,135,637</u>	<u>781</u>	<u>\$ 54,569,962</u>	<u>828</u>

SOURCE: Orange County Fire Authority, Finance Division, General Accounting Unit

June 30, 2013		June 30, 2014		June 30, 2015	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
\$ 53,179	2	53,179	2	\$ 53,179	2
678,014	8	678,014	8	678,014	8
716,800	18	716,800	18	734,581	20
31,515	4	31,515	4	31,515	4
-	-	-	-	-	-
1,117,422	97	1,214,725	113	1,167,318	107
11,171	1	11,171	1	33,713	4
1,533,009	44	1,458,744	39	1,458,744	39
82,126	5	82,126	5	90,386	6
1,528,398	105	1,526,069	105	1,526,069	105
35,622	5	35,622	5	35,622	5
172,042	16	172,042	16	189,888	17
93,177	3	93,177	3	93,177	3
504,562	22	504,562	22	504,562	22
1,391,000	2	1,391,000	2	1,391,000	2
336,275	23	432,282	23	479,786	26
28,854,977	4	28,854,977	4	28,854,977	4
319,149	4	319,149	4	319,149	4
-	-	148,104	2	148,104	2
-	-	-	-	-	-
-	-	-	-	-	-
787,062	43	780,245	42	942,245	43
377,287	56	401,133	60	468,400	67
33,403	4	33,403	4	33,403	4
29,058	5	29,058	5	29,058	5
67,452	11	67,452	11	67,452	11
643,040	46	660,496	49	702,500	52
2,424,594	1	2,424,594	1	2,424,594	1
107,671	17	107,671	17	82,659	14
-	-	-	-	-	-
952,374	30	1,321,172	31	1,288,223	29
638,472	7	632,865	6	632,865	6
236,843	14	274,656	14	352,872	17
79,452	15	79,452	15	143,605	27
72,039	6	72,039	6	72,039	6
10,372	2	10,372	2	10,372	2
37,405	4	37,405	4	37,405	4
-	-	-	-	5,489	1
163,944	11	196,302	13	210,657	14
1,022,818	81	997,288	79	1,000,858	69
7,117,506	56	7,117,506	56	9,176,979	50
282,393	16	312,760	17	312,760	17
-	-	-	-	5,455	1
122,237	12	122,237	12	122,237	12
527,629	18	512,761	18	523,455	18
1,641,243	25	1,641,243	25	1,641,243	25
<u>\$ 54,832,732</u>	<u>843</u>	<u>\$ 55,555,368</u>	<u>863</u>	<u>\$ 58,076,609</u>	<u>875</u>

(Continued on next page)

ORANGE COUNTY FIRE AUTHORITY
Capital Equipment by Category
(Continued)

Category	June 30, 2016		June 30, 2017	
	Historical Cost	Quantity	Historical Cost	Quantity
Air fill station	53,179	2	53,179	2
Aboveground storage tank	678,014	8	678,014	8
Audio visual equipment	734,581	20	734,581	20
Boat	31,515	4	64,986	6
Breathing Apparatus	-	-	-	-
Camera, thermal imaging	1,115,772	102	1,107,655	101
Camera, other	44,264	5	44,264	5
Communications equipment	1,523,812	51	1,702,712	83
Computer	90,386	6	25,900	4
Defibrillator	1,526,069	105	5,312,042	229
Exercise equipment	35,622	5	40,790	6
Fleet equipment	252,867	24	284,885	27
Forklift	93,177	3	134,138	4
Generator	504,562	22	504,562	22
GPS equipment (AVL regional interoperability projects)	1,391,000	2	1,391,000	2
Hazmat equipment	479,786	26	479,786	26
Helicopters and improvements:				
Helicopter	28,854,977	4	28,854,977	4
Helicopter, rotor blades	319,149	4	319,149	4
Helicopter, fast fin kits	148,104	2	148,104	2
Helicopter, flight director	-	-	-	-
Helicopter, multi-band radio upgrade	-	-	-	-
Helicopter equipment	942,245	43	995,953	46
Hydraulic tool	490,913	69	535,309	72
Kitchen equipment	33,403	4	26,394	3
Laptop	23,832	4	17,957	3
Manikin	67,452	11	67,452	11
Miscellaneous equipment	735,503	55	798,762	59
Mobile radio project (FY 2003/04 - FY 2004/05)	2,424,594	1	2,424,594	1
Mobile radio	88,700	16	88,700	16
Mobile radio, mobile data computer (MDC)	-	-	196,398	30
Network equipment	1,294,452	30	1,294,452	30
Office equipment	632,865	6	632,865	6
Portable building	352,872	17	352,872	17
Portable radio	138,477	26	138,477	26
Printer	72,039	6	68,552	6
Projector	10,372	2	10,372	2
Router	72,745	8	72,745	8
Scanner	5,489	1	5,489	1
Search equipment	236,657	16	258,921	18
Server	1,211,242	72	936,541	57
Software	10,502,153	53	10,491,277	52
Switch	349,909	20	349,909	20
Tablet	24,882	4	24,882	4
Tent	122,237	12	154,551	13
Trailer	523,455	18	465,143	18
Workstation	1,641,243	25	1,641,243	25
	<u>\$ 59,874,567</u>	<u>914</u>	<u>\$ 63,930,534</u>	<u>1,099</u>

June 30, 2018		June 30, 2019		June 30, 2020	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
53,179	2	53,179	2	53,179	2
678,014	8	678,014	8	678,014	8
734,581	20	734,581	20	734,581	20
80,606	7	80,606	7	80,606	7
-	-	20,394	4	20,394	4
1,198,258	111	1,251,200	117	1,360,096	131
44,264	5	44,264	5	44,264	5
1,689,198	81	1,696,094	82	3,919,452	83
25,900	4	25,900	4	34,261	5
3,802,620	121	4,089,086	130	4,334,152	138
40,790	6	40,790	6	40,790	6
261,714	28	294,849	29	292,914	29
134,138	4	134,138	4	134,138	4
504,562	22	504,562	22	504,562	22
1,391,000	2	1,391,000	2	1,391,000	2
479,786	26	500,242	30	801,854	32
28,854,977	4	28,854,977	4	28,854,977	4
319,149	4	319,149	4	319,149	4
148,104	2	213,749	3	213,749	3
168,804	2	168,804	2	168,804	2
-	-	183,096	2	366,193	4
1,003,199	47	1,003,199	47	1,003,199	47
1,108,303	148	905,931	119	882,673	113
26,394	3	20,395	2	20,395	2
17,957	3	17,957	3	12,081	2
75,129	12	32,371	5	109,410	13
891,816	67	978,892	74	2,580,791	197
2,424,594	1	2,424,594	1	2,424,594	1
88,700	16	99,592	18	136,527	23
196,398	30	385,726	60	385,726	60
1,294,452	30	1,294,452	30	1,294,452	23
642,985	7	685,053	9	685,053	9
352,872	17	687,025	20	980,837	28
138,477	26	400,892	71	400,892	71
68,552	6	77,501	7	66,101	6
5,153	1	5,153	1	5,153	1
72,745	8	72,745	8	58,132	7
5,489	1	5,489	1	5,489	1
258,921	18	258,921	18	258,921	18
1,150,118	72	944,725	48	870,201	41
10,491,277	52	10,538,302	56	10,666,466	50
356,521	21	514,813	58	522,347	59
24,882	4	24,882	4	24,882	4
180,849	15	194,207	16	226,055	18
572,659	21	656,551	22	836,564	25
1,641,243	25	1,647,704	26	1,698,204	27
<u>\$ 63,699,329</u>	<u>1,110</u>	<u>\$ 65,155,746</u>	<u>1,211</u>	<u>\$ 70,502,274</u>	<u>1,361</u>

ORANGE COUNTY FIRE AUTHORITY
Capital Vehicles by Category
Last Ten Fiscal Years

Category	June 30, 2011		June 30, 2012	
	Historical Cost	Quantity	Historical Cost	Quantity
Air Utility	\$ 629,011	3	\$ 820,733	4
Ambulance	776,283	6	776,283	6
Battalion Chief Vehicle	1,488,518	28	1,518,914	29
Brush Chipper	34,289	2	34,289	2
Crew Cab	139,057	3	69,009	2
Crew-Carrying Vehicle	297,336	4	452,373	4
Dump Truck	66,366	1	66,366	1
Fire Command	402,755	2	402,755	2
Fire Dozer	723,403	4	723,403	4
Foam Tender	152,245	1	152,245	1
Fuel Tender	226,392	2	376,164	3
Hazmat Unit	674,962	2	1,077,646	3
Heavy Rescue Unit	658,107	1	658,107	1
Hose Tender	103,189	1	103,189	1
Lift Truck	71,780	1	71,780	1
Loader	-	-	-	-
Paramedic Van	1,860,604	22	1,860,604	22
Parade Engine	35,000	2	-	-
Patrol	1,539,901	19	1,539,901	19
Patrol, Compressed Air Foam System (CAFS)	858,456	12	858,456	12
Pickup Truck	1,590,978	41	1,796,208	49
Road Grader	102,396	1	102,396	1
Sedan	61,256	3	61,256	3
Squad	578,998	7	578,998	7
Stakeside	34,289	1	34,289	1
Sport Utility Vehicle (SUV)	2,820,880	104	2,658,508	98
Telesquirt	2,099,242	6	2,344,077	7
Transport Tractor	506,673	5	506,673	5
Truck, 90', 100' and 110' Tractor Drawn Aerials	4,428,314	5	4,943,110	8
Truck, 75' Quint	3,536,736	7	3,124,257	6
Truck, 90' Quint	4,429,851	9	3,562,035	7
Truck, 100' Quint	-	-	2,354,146	2
Truck, Other	427,613	5	427,538	5
Truck, Compressed Air Foam System (CAFS)	-	-	21,649	1
Type 1 Engine	25,031,630	84	26,638,285	90
Type 1 Wildland Urban Interface Engine	2,127,949	5	2,127,949	5
Type 2 Engine	305,219	2	152,610	1
Type 3 Engine	4,105,746	13	4,105,746	13
Utility	161,801	4	145,169	3
Van	623,608	24	623,608	24
Water Tender	753,535	5	753,535	5
	<u>\$ 64,464,368</u>	<u>447</u>	<u>\$ 68,624,259</u>	<u>458</u>

SOURCE: Orange County Fire Authority, Finance Division, General Accounting Unit

June 30, 2013		June 30, 2014		June 30, 2015	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
820,733	4	\$ 820,733	4	\$ 820,733	4
674,739	5	674,739	5	573,194	4
1,518,914	29	1,518,914	29	1,518,914	29
34,289	2	34,289	2	34,289	2
69,009	2	-	-	-	-
452,373	4	452,373	4	452,373	4
66,366	1	66,366	1	66,366	1
402,755	2	820,829	4	674,655	3
723,403	4	723,403	4	550,978	2
152,245	1	152,245	1	152,245	1
376,164	3	376,164	3	376,164	3
1,077,646	3	1,077,646	3	1,077,646	3
658,107	1	658,107	1	658,107	1
103,189	1	103,189	1	103,189	1
71,780	1	71,780	1	71,780	1
-	-	-	-	81,996	1
1,860,604	22	1,860,604	22	1,860,604	22
-	-	-	-	-	-
1,539,901	19	1,539,901	19	1,539,901	19
858,456	12	858,456	12	858,456	12
1,943,905	51	2,081,006	53	2,081,006	53
102,396	1	102,396	1	102,396	1
61,256	3	44,994	2	44,994	2
578,998	7	578,998	7	578,998	7
34,289	1	34,289	1	34,289	1
2,637,875	97	2,560,913	94	2,505,905	92
1,995,305	6	1,736,407	5	1,736,407	5
506,673	5	506,673	5	506,673	5
4,938,110	7	4,938,110	7	4,938,110	7
3,124,257	6	3,124,257	6	3,124,257	6
3,562,035	7	3,562,035	7	3,062,553	6
2,354,146	2	2,354,146	2	2,354,146	2
427,538	5	592,188	7	768,076	11
44,058	2	44,058	2	44,058	2
26,638,285	90	28,363,285	92	28,442,065	90
3,451,627	8	3,451,627	8	3,451,627	8
152,610	1	152,610	1	152,610	1
3,871,874	11	4,653,221	13	4,653,221	13
145,169	3	145,169	3	145,169	3
623,608	24	623,608	24	451,395	19
753,535	5	753,535	5	753,535	5
<u>69,408,222</u>	<u>458</u>	<u>\$ 72,213,263</u>	<u>461</u>	<u>\$ 71,403,080</u>	<u>452</u>

(Continued on next page)

ORANGE COUNTY FIRE AUTHORITY
Capital Vehicles by Category
(Continued)

Category	June 30, 2016		June 30, 2017	
	Historical Cost	Quantity	Historical Cost	Quantity
Air Utility	820,733	4	820,733	4
Ambulance	573,194	4	573,194	4
Battalion Chief Vehicle	2,098,087	42	2,161,593	42
Brush Chipper	103,545	3	84,438	2
Crew Cab	-	-	-	-
Crew-Carrying Vehicle	452,373	4	452,373	4
Dump Truck	66,366	1	66,366	1
Fire Command	674,655	3	674,655	3
Fire Dozer	550,978	2	550,978	2
Foam Tender	152,245	1	152,245	1
Fuel Tender	376,164	3	376,164	3
Hazmat Unit	1,077,646	3	939,162	2
Heavy Rescue Unit	679,608	1	679,608	1
Hose Tender	103,189	1	103,189	1
Lift Truck	71,780	1	71,780	1
Loader	81,996	1	81,996	1
Paramedic Van	1,860,604	22	1,860,604	22
Parade Engine	-	-	-	-
Patrol	1,539,901	19	1,539,901	19
Patrol, Compressed Air Foam System (CAFS)	858,456	12	858,456	12
Pickup Truck	2,327,501	63	3,213,233	85
Road Grader	102,396	1	102,396	1
Sedan	-	-	-	-
Squad	578,998	7	496,839	6
Stakeside	34,289	1	34,289	1
Sport Utility Vehicle (SUV)	2,621,995	93	2,602,271	92
Telesquirt	1,736,407	5	1,736,407	5
Transport Tractor	506,673	5	506,673	5
Truck, 90', 100' and 110' Tractor Drawn Aerials	4,948,930	8	6,641,223	9
Truck, 75' Quint	3,124,257	6	3,124,257	6
Truck, 90' Quint	3,062,553	6	3,062,553	6
Truck, 100' Quint	2,354,146	2	2,354,146	2
Truck, Other	768,076	11	804,028	11
Truck, Compressed Air Foam System (CAFS)	44,058	2	44,058	2
Type 1 Engine	30,580,415	94	32,151,624	94
Type 1 Wildland Urban Interface Engine	3,451,627	8	3,451,627	8
Type 2 Engine	152,610	1	152,610	1
Type 3 Engine	4,653,221	13	4,653,221	13
Utility	145,169	3	145,169	3
Van	451,395	19	435,224	18
Water Tender	753,535	5	753,535	5
	<u>\$ 74,539,771</u>	<u>480</u>	<u>\$ 78,512,818</u>	<u>498</u>

June 30, 2018		June 30, 2019		June 30, 2020	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
820,733	4	820,733	4	1,216,732	5
573,194	4	573,194	4	-	-
2,224,326	42	2,468,254	46	2,603,667	47
84,438	2	84,438	2	160,272	3
-	-	-	-	-	-
447,373	3	447,373	3	447,373	3
66,366	1	66,366	1	66,366	1
674,655	3	674,655	3	674,655	3
550,978	2	550,978	2	1,112,241	3
152,245	1	152,245	1	152,245	1
376,164	3	376,164	3	376,164	3
939,162	2	939,162	2	939,162	2
679,608	1	679,608	1	679,608	1
-	-	-	-	-	-
71,780	1	71,780	1	71,780	1
81,996	1	81,996	1	248,479	3
1,566,150	19	1,566,150	19	1,468,553	18
-	-	-	-	-	-
1,791,780	20	1,791,780	20	1,791,780	20
858,456	12	858,456	12	858,456	12
3,275,670	86	3,726,138	98	5,190,357	130
170,438	2	170,438	2	170,438	2
-	-	-	-	-	-
1,074,089	9	1,465,052	11	1,465,052	11
34,289	1	34,289	1	34,289	1
2,224,726	79	2,186,521	77	1,889,421	59
1,387,635	4	1,038,862	3	-	-
506,673	5	506,673	5	1,093,171	8
9,236,148	11	17,609,131	17	18,802,835	18
3,124,257	6	3,124,257	6	2,694,556	5
3,062,553	6	3,062,553	6	3,062,553	6
2,354,146	2	2,354,146	2	2,354,146	2
790,798	10	790,798	10	1,138,258	12
44,058	2	44,058	2	44,058	2
32,151,624	94	37,752,647	103	43,198,345	113
3,451,627	8	3,451,627	8	3,451,627	8
152,610	1	152,610	1	-	-
4,653,221	13	4,653,221	13	4,653,221	13
145,169	3	145,169	3	145,169	3
435,224	18	649,798	26	557,619	22
753,535	5	753,535	5	753,535	5
<u>\$ 80,987,894</u>	<u>486</u>	<u>\$ 95,874,855</u>	<u>524</u>	<u>\$ 103,566,183</u>	<u>546</u>



Orange County Fire Authority Safety Message

Senior Fall Prevention (Part 3 of 3)

(Continued from Page 132)



Every 11 seconds, an elderly adult is treated in the emergency room for a fall. Every 19 minutes, an elderly adult dies from a fall.

Safety Tips

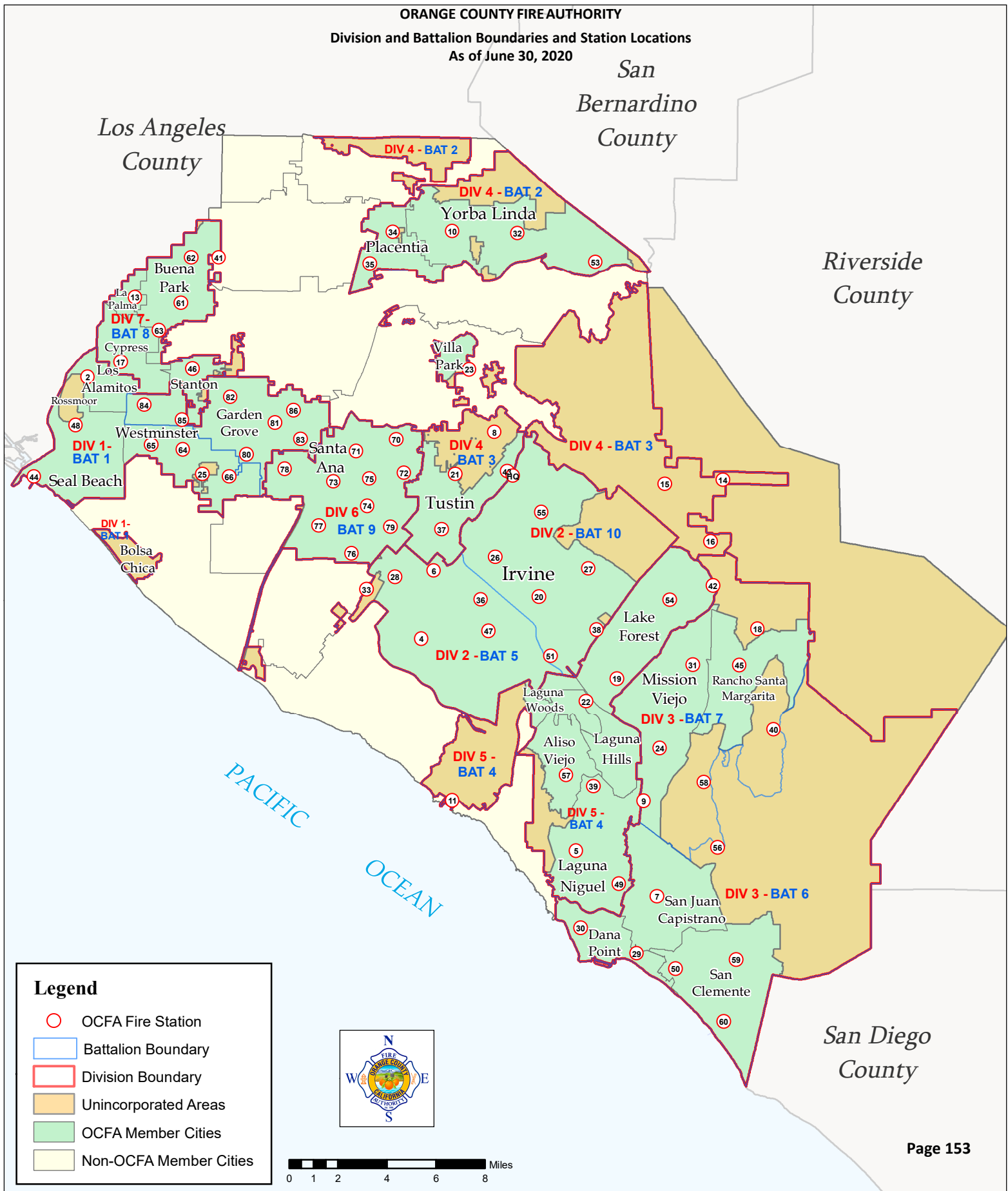
Falls are the leading cause of injuries for the elderly community and can greatly reduce their ability to remain independent. Take steps now to protect your health and reduce your fall risk.

Make Your Home Safer, (Continued)

- ✓ Install handrails along both sides of hallways and stairs.
- ✓ Use risers to elevate beds, chairs, and sofas.
- ✓ Rearrange cabinets and drawers so items used most often are within easy reach.
- ✓ Wear sturdy shoes with non-slip soles both inside and outside your home.

Have Your Eyes Checked

- ✓ See your eye doctor at least once a year and update your eye glasses, if needed.



ORANGE COUNTY FIRE AUTHORITY
List of Stations by Member Agency
As of June 30, 2020



City of Aliso Viejo
#57, 57 Journey, 92656



City of Buena Park
#61, 7440 La Palma Ave. 90620
#62, 7780 Artesia Blvd. 90621
#63, 9120 Holder St. 90620



City of Cypress
#17, 4991 Cerritos Ave. 90630



City of Dana Point
#29, 26111 Victoria Blvd. 92624
#30, 23831 Stonehill Dr. 92629



City of Garden Grove
#80, 14162 Forsyth Ln. 92844
#81, 112611 Acacia Pkwy. 92840
#82, 11805 Gilbert St. 92841
#83, 12132 Trask Ave. 92843
#84, 12191 Valley View St. 92845
#85, 12751 Western Ave. 92841
#86, 12232 West St. 92840



City of Irvine
#4, 2 California Ave. 92612
#6, 3180 Barranca Pkwy. 92606
#20, 7050 Corsair, 92618
#26, 4691 Walnut Ave. 92604
#27, 12400 Portola Springs 92618
#28, 17862 Gillette Ave. 92614
#36, 301 E. Yale Loop 92604
#38, 26 Parker 92618
#47, 47 Fossil 92603
#51, 18 Cushing 92618
#55, 4955 Portola Pkwy. 92620



City of La Palma
#13, 7822 Walker St. 90623



Cities of Laguna Hills and Laguna Woods
#22, 24001 Paseo de Valencia, Laguna Hills 92653



City of Laguna Niguel
#5, 23600 Pacific Island Dr. 92677
#39, 24241 Avila Rd. 92677
#49, 31461 Golden Lantern St. 92677



City of Lake Forest
#19, 23022 El Toro Rd. 92630
#42, 19150 Ridgeline Rd., 92679
#54, 19811 Pauling Ave., 92610



City of Los Alamitos
#2, 3642 Green Ave. 90720



City of Mission Viejo
#9, #9 Shops at Mission Viejo 92691
#24, 25862 Marguerite Pkwy. 92692
#31, 22426 Olympiad Rd. 92692



City of Placentia
#34, 1530 N. Valencia 92870
#35, 110 S. Bradford 92870



City of Rancho Santa Margarita
#45, 30131 Aventura 92688

ORANGE COUNTY FIRE AUTHORITY
List of Stations by Member Agency
As of June 30, 2020, (Continued)



City of San Clemente

#50, 670 Camino de Los Mares 92672
#59, 48 Avenida La Pata 92673
#60, 100 Avenida Victoria 92672



City of San Juan Capistrano

#7, 31865 Del Obispo 92675



City of Santa Ana

#70, 2301 Old Grand 92701
#71, 1029 West 17th St. 92706
#72, 1688 East 4th St. 92701
#73, 419 Franklin 92703
#74, 1427 South Broadway 92707
#75, 120 West Walnut 92701
#76, 950 West MacArthur 92707
#77, 2317 South Greenville 92704
#78, 501 North Newhope 92703
#79, 1320 East Warner 92705



City of Seal Beach

#44, 718 Central Ave. 90740
#48, 3131 N. Gate Rd. 90740



City of Stanton

#46, 7871 Pacific St. 90680



City of Tustin

#37, 15011 Kensington Park Dr. 92780
#43, 11490 Pioneer Way 92782



City of Villa Park

#23, 5020 Santiago Canyon Rd. 92869



City of Westminster

#64, 7351 Westminster Blvd. 92683
#65, 6061 Hefley St. 92683
#66, 15061 Moran St. 92683



City of Yorba Linda

#10, 18422 E. Lemon Dr. 92886
#32, 20990 Yorba Linda Blvd. 92887
#53, 25415 La Palma Ave. 92887



County of Orange, Unincorporated

#8, 10631 Skyline Dr.,
Santa Ana 92705

#11, 259 Emerald Bay,
Laguna Beach 92651

#14, P.O. Box 12,
Silverado 92676

#15, 27172 Silverado Canyon Rd.,
Silverado 92676

#16, 28891 Modjeska Canyon Rd.,
Silverado 92676

#18, 30942 Trabuco Canyon Rd.,
Trabuco Canyon 92679

#21, 1241 Irvine Blvd.,
Tustin 92780

#25, 8171 Bolsa Ave.,
Midway City 92655

#40, 25082 Vista del Verde,
Coto de Caza 92679

#56, 56 Sendero Way,
Rancho Mission Viejo 92694

#58, 58 Station Way,
Ladera Ranch 92694

Specialty Stations



Airport Rescue & Firefighting

#33, 374 Paularino,
Costa Mesa 92626



Helicopter Operations

#41, 3900 W. Artesia Ave.,
Fullerton 92633

ORANGE COUNTY FIRE AUTHORITY
Description of the Organization, Programs and Service Delivery
As of June 30, 2020

Orange County Fire Authority (OCFA) is managed by an Executive Management team consisting of an appointed Fire Chief, two Deputy Chiefs, six Assistant Chiefs, and one Director. Assistant Chiefs oversee service activities that are organized into six primary departments – Operations, Emergency Medical Services (EMS), Business Services, Community Risk Reduction, Human Resources, and Logistics – which are further organized into divisions, battalions, sections, and/or programs to effectively carry out the mission of the OCFA. OCFA’s overall structure is organized and managed as follows:

OCFA	Fire Chief
Bureau.....	Deputy Chief
Department	Assistant Chief
Division	Assistant Chief, Director, or Division Chief
Battalion / Section / Program	Battalion Chief or Section Manager

EXECUTIVE MANAGEMENT

Executive Management provides direction to areas of the organization and ensures that the types and levels of services provided are consistent with Board policy and the adopted budget. OCFA contracts with the firm of Woodruff, Spradlin, & Smart located in Costa Mesa, California for its legal services. General Counsel reports directly to the Board of Directors.

CORPORATE COMMUNICATIONS

Corporate Communications, which is overseen by a Director reporting directly to the Fire Chief, facilitates public information and media relations, and provides support to Executive Management staff on special projects designed to keep the public and other agencies informed about OCFA.

- The **Public Information Officer (PIO)** serves as the spokesperson for OCFA during major incidents and ensures that the public is kept informed through the release of accurate and timely information, news releases, and board advisories.
- **Multimedia** is responsible for meeting all OCFA audio, video, and photographic needs.
- **Community Education** facilitates public safety education and awareness through large-scale educational campaigns and community outreach events.

EMERGENCY OPERATIONS BUREAU

COMMAND & EMERGENCY PLANNING DIVISION

The **Command & Emergency Planning Division**, which is overseen by a Division Chief reporting directly to the Deputy Chief of the Emergency Operations Bureau, provides the following services:

- The **Emergency Command Center (ECC)** serves as a secondary 9-1-1 Public Safety Answering Point (PSAP) and dispatch center for fire and medical emergencies by answering emergency calls, identifying the nature and location of the emergency, and dispatching resources. The ECC also serves as the Operational Area Coordinator for fire and rescue mutual aid for all Orange County fire service agencies.
- **Emergency Planning and Coordination (EPAC)** is primarily responsible for emergency management planning, serving as the OCFA's representative to the Operational Area Emergency Operations Center (Loma Ridge) and the Operational Area Fire Mutual Aid Representative to the California Office of Emergency Services Region I Office.

SPECIAL OPERATIONS DIVISION

The **Special Operations Division**, which is overseen by a Division Chief reporting directly to the Deputy Chief of the Emergency Operations Bureau, coordinates and facilitates all operational agreements that OCFA maintains with outside entities, including the California Governor's Office of Emergency Services (Cal OES), the California Department of Forestry and Fire Protection (CAL FIRE), and the United States Forest Service (USFS). The division also provides the following services and programs:

- The **Urban Search and Rescue (USAR) Program** provides specialized emergency response capabilities and equipment for the federal USAR task force, the Swift Water Rescue program, and the Mass Casualty Unit.
- The **Hazardous Materials Program** provides administration, oversight, and training for the Hazardous Materials Response Team (HMRT) and the Fire and Law Enforcement Joint Hazard Assessment Team (JHAT).
- **Investigations** conducts fire investigations and evaluations and initiates early intervention strategies. Other responsibilities include administration of the Fire F.R.I.E.N.D.S. diversion program for juvenile-related fires; OCFIRS quality assurance; state and national reporting; and oversight of the Orange County Intelligence and Assessment Center (OCIAC).
- **Air Operations** is responsible for coordination and maintenance of OCFA's firefighting helicopters, which are used for emergency responses for wildland and wildland urban interface fires and special rescues such as swift and still water rescues, medical rescue support, and disaster mitigation.
- **Wildland Operations** oversees the coordination of firefighting hand crews and heavy fire equipment.

OPERATIONS DEPARTMENT

The **Operations Department** provides command and control direction regarding daily operations and all fire suppression activities, as well as specialized training programs for safety personnel and overall OCFA-wide staff development. There are seven operational field divisions, each under the command of a Division Chief. Divisions are divided into field battalions, which are under the command of Battalion Chiefs. Within these field battalions are 78 fire stations that provide for regional emergency response to structure fires, medical aids, rescues, hazardous materials incidents, and wildland fires. Activities and additional responsibilities of each Division include the following:

- **Division 1 – Battalion 1** primarily serves the cities of Los Alamitos, Seal Beach, and Westminster, as well as the unincorporated communities of Midway City and Rossmore. **Battalion 11** primarily serves the city of Garden Grove. Division 1 also assists with the provision of emergency services to Seal Beach Naval Weapons Station and the Joint Forces Training Base in Los Alamitos, and provides oversight for the OCFA Equipment Committee.
- **Division 2 – Battalion 5 and Battalion 10** primarily serve the city of Irvine, as well as the unincorporated community of Santa Ana Heights. Division 2 provides emergency services to the University of California, Irvine (UCI), John Wayne Airport (JWA), and the Orange County Great Park. The division also provides oversight for Airport Rescue Fire Fighting (ARFF) services. The division is also responsible for coordinating all grants received from the Office of Homeland Security.
- **Division 3 – Battalion 6** primarily serves the cities of Dana Point, San Clemente, and San Juan Capistrano, as well as the unincorporated community of Rancho Mission Viejo and areas along Ortega Highway in southern Orange County. **Battalion 7** primarily serves the cities of Mission Viejo and Rancho Santa Margarita, as well as the unincorporated communities of Coto de Caza, Ladera Ranch, Las Flores, and Trabuco Canyon. Division 3 provides oversight for the OCFA Apparatus Committee.
- **Division 4 – Battalion 2** primarily serves the cities of Placentia and Yorba Linda, as well as the unincorporated communities of Carbon Canyon, Chino Hills State Park, and Tonner Canyon. **Battalion 3** primarily serves the cities of Tustin and Villa Park, as well as the unincorporated communities of Cowan Heights, El Modena, Lemon Heights, Orange Park Acres, Modjeska Canyon, Santiago Canyon, and Silverado Canyon. **Community Volunteer Services (CVS)** coordinates the Reserve Firefighters (RFF) program, the OCFA Chaplain Program, and the Fire Exploring Program.
- **Division 5 – Battalion 4** primarily serves the cities of Aliso Viejo, Laguna Hills, Laguna Niguel, Laguna Woods, and Lake Forest,

as well as the unincorporated community of Emerald Bay. Division 5 oversees and manages the Staffing Program, which ensures 24/7 staffing levels at all stations; the Staffing Committee; and the employee transfer process within the Operations Department.

- **Division 6 – Battalion 9** primarily serves the city of Santa Ana.
- **Division 7 – Battalion 8** primarily serves the cities of Buena Park, Cypress, La Palma, and Stanton.
- The **Operations Training and Promotions Division** facilitates and coordinates the Fire Apparatus Engineer, Fire Captain, and Fire Battalion Chief academies and assessment centers. The division works collaboratively with the Operations Training & Safety Division on rank-specific, operations-based training. Lastly, the division coordinates with Santa Ana College and the California Joint Apprenticeship Committee (CFFJAC) on various training activities and programs.
- The **Operations Training & Safety Division (Training)** delivers and facilitates all operations personnel training activities and serves in a lead capacity on issues of employee and incident safety. Training Officers double as incident safety officers.

EMS DEPARTMENT

The **EMS Department** provides emergency medical and specialized training programs for safety personnel. Specific activities and responsibilities of the department include the following:

- The **Emergency Medical Services (EMS) Division** manages the delivery of medical services by OCFA's emergency medical technicians (EMT) and paramedics. EMS serves as a liaison to county and state regulatory agencies, hospitals, ambulance providers, and other EMS groups.

ADMINISTRATION & SUPPORT BUREAU

BUSINESS SERVICES DEPARTMENT

The **Business Services Department** provides the following services:

- The **Clerk Division** administers democratic processes, such as access to OCFA records and all legislative actions ensuring transparency to the public.
- The **Finance Division** oversees the processing, accounting, reporting, and auditing of all OCFA financial records. It is responsible for developing policies and procedures designed to protect and safeguard OCFA's assets. Specific functions include accounts receivable, general accounting, cost accounting, accounts payable, payroll, and timekeeping.
- The **Legislative Division** identifies and tracks local, state, and federal legislation that could impact OCFA; submits legislative analysis to the Board of Directors; sends letters on behalf of the Board of Directors when a position is taken on an item of legislation; and manages the grant application process for all OCFA grants.
- The **Purchasing Division** administers the centralized procurement of all supplies, services, equipment, and construction services through competitive solicitations. The Purchasing Division is also responsible for administering the procurement card program and surplus disposition.
- The **Treasury Division** provides cash management, budgetary, and financial support services. Treasury services include monitoring cash balances; making investments in compliance with OCFA's Investment Policy; issuing and administering long and short-term debt; and providing oversight of the deferred compensation, pension, and retiree medical programs. Financial planning services include preparation of the budget; annual reviews of OCFA's fiscal health; financial forecasting; and special financial studies.

COMMUNITY RISK REDUCTION DEPARTMENT

The **Community Risk Reduction Department** contributes to community safety and prosperity through the systematic mitigation of risk. Specific programs and services include the following:

- The **Planning and Development Division** interacts with developers, architects, and engineers to meet the fire protection requirements for buildings and developments. This division reviews all architectural development plans and proposals submitted within OCFA's jurisdiction, including tract and parcel maps, permits for conditional use, site development, coastal development, and other items related to the developmental process.
- The **Prevention Field Services Division** assists stakeholders in maintaining and enhancing safe communities through the following:
 - **Inspection Services** conducts fire safety inspections; enforces applicable fire codes and ordinances; and assures that public safety issues are researched and addressed as appropriate.
 - **Community Wildfire Mitigation** takes a proactive approach to wildland fire prevention through the systematic evaluation of risk, fuels mitigation, road maintenance, vegetation management, and home hardening education through ongoing collaboration with partner organizations, land owners, and communities.

HUMAN RESOURCES DEPARTMENT

The **Human Resources Department** provides the following programs and services:

- The **Benefits Division** administers employee benefit programs, including health, accidental death and dismemberment, dental, vision, life, disability, and optional benefit plans; has oversight for human resources information systems; and oversees classification and compensation studies.
- The **Employee Relations Division** oversees performance management; meet and confer, appeal, and grievance processes; and Memorandum of Understanding (MOU) administration. In addition, Employee Relations includes the OCFA accommodation program, which involves scheduling and facilitating interactive process meetings and the identification of reasonable accommodations.
- The **Recruitment Division** oversees recruitment and selection processes.
- The **Risk Management Division** administers OCFA's general liability insurance, self-insured workers' compensation, and environmental health and safety programs. Risk Management also oversees the Wellness and Fitness (WEFIT) program, which includes medical and fitness evaluations, behavioral health, cancer awareness and prevention, peer fitness trainers, employee health and fitness education, and physical training for firefighter academy recruits.

LOGISTICS DEPARTMENT

The **Logistics Department** provides essential support to all departments of the OCFA in the following areas:

- The **Fleet Services Division** ensures the effective and timely repair, servicing, and maintenance of all vehicles, apparatus, and equipment. Responsibilities include coordinating new vehicle specifications and purchases, maintenance schedules, and replacement prioritization.
- The **Information Technology Division** is responsible for development, operation, maintenance, and security of OCFA's computers, network, and overall technical infrastructure; the development and support of information systems applications and databases; maintenance of centralized enterprise Geographic Information System (GIS) and mapping capabilities; and the acquisition and maintenance of emergency communications equipment.
- The **Property Management Division** builds, maintains, and repairs all OCFA real property and durable infrastructure.

Responsibilities include construction of new fire stations and the maintenance and operations of all fire stations and facilities, including the air operations hangar, the Urban Search and Rescue and Training facility, and the Regional Fire Operations and Training Center (RFOTC).

- The **Service Center Division** provides OCFA's organization-wide logistical support. Responsibilities include shipping, receiving, and warehousing services for a wide variety of organizational supplies; mail processing and delivery; testing and repair of firefighting equipment; providing and maintaining personal protective equipment (PPE) for firefighters; outfitting new fire apparatus with equipment; and providing specialized emergency support on incidents.



CAFR 2020

FISCAL YEAR ENDED JUNE 30



ORANGE COUNTY FIRE AUTHORITY

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

(714) 573-6000

www.ocfa.org



INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE
WITH *GOVERNMENT AUDITING STANDARDS*

To the Board of Directors
Orange County Fire Authority
Irvine, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the aggregate discretely presented component units, each major fund, the aggregate remaining fund information, and the budgetary comparison for the general fund of the Orange County Fire Authority (the "Authority"), as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated October 8, 2020.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed



To the Board of Directors
Orange County Fire Authority
Irvine, California

no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Lance, Soll & Lughard, LLP

Brea, California
October 8, 2020



October 8, 2020

To the Board of Directors
Orange County Fire Authority
Irvine, California

We have audited the financial statements of the governmental activities, the discretely presented component unit, each major fund, and the aggregate remaining fund information of the Orange County Fire Authority (the "Authority") for the year ended June 30, 2020. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, *Government Auditing Standards* and the Uniform Guidance, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated March 19, 2020. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Authority are described in the notes to the financial statements. As described in Note 3 to the financial statements, the Authority changed accounting policies related to the reporting of fiduciary activities by adopting Statement of Governmental Accounting Standards (GASB Statement) No. 84, *Fiduciary Activities*, in fiscal year 2019-2020. There was no effect from the accounting change as of the beginning of the year as reported in the statement of fiduciary net position, as the Authority's fiduciary activities did not change. We noted no transactions entered into by the Authority during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the Authority's financial statements were:

Management's estimates of its net pension liabilities and net other post-employment benefits liability based on actuarial valuation specialist assumptions. We evaluated the key factors and assumptions used to develop the net pension liability and net other post-employment benefits liability in determining that they are reasonable in relation to the financial statements taken as a whole.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.





To the Board of Directors
Orange County Fire Authority
Irvine, California

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. These differences are described below. In addition, none of the misstatements detected as a result of our audit procedures were material, either individually or in the aggregate, to the financial statements taken as a whole.

Unadjusted Audit Differences	Current Year Over (Under) Revenues and Expenditures/Expenses and Changes in Fund Balance/Equity
Payments made after 6/30/2020 for expenditures incurred prior to 6/30/2020 were not accrued.	\$ 128,400
Cash receipts received after 6/30/2020 for revenues earned prior to 6/30/2020 were not accrued.	209,218
Certain capital assets were not booked as of 6/30/2020	(42,209)
<i>(All items were identified by management, and a decision was made to pass on adjustment due to the immateriality of the items, rather than reopening the books at 6/30/2020 to record)</i>	-
	-
Cumulative effect (before effect of prior year differences)	295,409
Effect of unadjusted audit difference - prior year	(165,782)
Cumulative effect (after effect of prior year differences)	\$ 129,627

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 8, 2020.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Authority's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Authority's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Review Procedures for Emergency Purchases

We examined a sample of purchase orders, sole source contracts, and emergency purchases made during the fiscal year. The purpose of the testing was to verify compliance with the Authority's internal policies and procedures. We identified the Authority was following its policies and procedures and controls were functioning as designed. One area we did want to bring to your attention related to the handling of emergency purchases during the Coronavirus pandemic. The Authority procurement policy, considering the unusual nature of the Coronavirus pandemic, is somewhat unclear regarding timing of the Executive Committee approval for emergency purchases. The Authority has traditionally taken items requiring Executive Committee approval to the meeting immediately following the emergency. However, with the extended nature of the Coronavirus emergency and uncertainty on when the emergency will be over, we recommend the Authority reevaluate its practice of when emergency purchases are provided to the Executive Committee for consideration to allow for more timely review and ratification of such purchases. The purchases we selected were for personal protective equipment, sanitation services, and other purchases and were made starting at the beginning of the pandemic and over time exceeded management's authority thresholds. We did identify that these purchases were presented to the Executive Committee for review and ratification during the September 2020 meeting.

Other Matters

We applied certain limited procedures to the management's discussion and analysis, the schedule of proportionate share of the net pension liability, the schedules of plan contributions, the schedule of changes in the net pension liability and related ratios, the schedules of money weighted rate of return, the schedule of changes in net other post-employment benefits liability and related ratios which are required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the combining and individual fund statements and schedules, which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on introductory and statistical sections, which accompany the financial statements but are not RSI. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.



To the Board of Directors
Orange County Fire Authority
Irvine, California

New Accounting Standards

The following pronouncements have been postponed as a temporary relieve to governments and other stakeholders in light of the COVID-19 pandemic and the new effective date are reflected in the following fiscal years.

The following new Governmental Accounting Standards Board (GASB) pronouncements were effective for fiscal year 2019-2020 audit:

GASB Statement No. 95, *Postponement of Effective Dates of Certain Authoritative Guidance*

GASB Statement No. 88, *Certain Disclosure Related to Debt, including Direct Borrowing and Direct Placements.*

The following Governmental Accounting Standards Board (GASB) pronouncements are effective in the following fiscal year audits and should be reviewed for proper implementation by management:

Fiscal year 2020-2021

GASB Statement No. 90, *Majority Equity Interests - an Amendment of GASB Statement Nos. 14 and 61.*

Fiscal year 2021-2022

GASB Statement No. 87, *Leases.*

GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period.*

Fiscal year 2022-2023

GASB Statement No. 91, *Conduit Debt Obligations.*

Restriction on Use

This information is intended solely for the use of Board of Directors and management of the Orange County Fire Authority and is not intended to be, and should not be, used by anyone other than these specified parties.

Very truly yours,

A handwritten signature in black ink that reads "Lance, Soll & Lughard, LLP". The signature is written in a cursive, flowing style.

Brea, California

ORANGE COUNTY FIRE AUTHORITY
Fund Balance Assigned for Capital Improvement Program (CIP)
Final Calculation
As of June 30, 2020

Attachment 4A

Description	Source	General Fund CIP Fund 12110	Communications and Information Systems Fund 124	Fire Apparatus Fund 133	Fire Stations and Facilities Fund 123	Total
Actual Fund Balance Available for CIP Assignment						
Total actual fund balance @ 6/30/2020	FYE 6/30/2020 CAFR, pages 28, 102	6,263,474	6,228,913	18,990,529	17,627,926	49,110,842
Less nonspendable fund balance - prepaid items	FYE 6/30/2020 CAFR, pages 28, 102	(93,436)	(4,247)	-	-	(97,683)
Less restricted fund balance	FYE 6/30/2020 CAFR, pages 28, 102				(391,477)	(391,477)
Less outstanding encumbrances:						
Pertaining to restricted resources	FYE 6/30/2020 CAFR, pages 28, 102	-	-	-	-	-
Pertaining to committed resources	FYE 6/30/2020 CAFR, pages 28, 102	-	-	-	-	-
Pertaining to assigned resources	FYE 6/30/2020 CAFR, pages 28, 102	(1,046,914)	(103,078)	(14,841,073)	(612,704)	(16,603,769)
Actual fund balance available for CIP assignment @ 6/30/2020 (A)		5,123,124	6,121,588	4,149,456	16,623,745	32,017,913

Possible CIP Expenditures, Net of Offsetting Revenues and Funding Sources

Appropriations Re-Budgeted to Next Fiscal Year, Net

Carryover expenditures	Board of Directors approval 9/24/2020, Item #2B	4,251,843	2,948,389	2,409,530	6,021,771	15,631,533
Less: Carryover revenues	Board of Directors approval 9/24/2020, Item #2B	-	-	-	-	-
Net		4,251,843	2,948,389	2,409,530	6,021,771	15,631,533

Five-Year CIP Plan - Budgeted CIP Projects, Net

Five-year CIP plan expenditures	FY 2020/21 Adopted Budget	36,983,500	11,426,292	51,503,539	51,525,000	151,438,331
Less: Offsetting cash contract/developer/grant/CALFIRE funding:						
Vehicle replacement charges (5 years)	Cash contract annual vehicle charge, as prepared by Finance Division / General Accounting Unit	-	-	(8,355,446)	-	(8,355,446)
Developer-funded projects (cost-reimbursable budgeted costs)	FY 2020/21 Adopted Budget	-	-	(3,473,463)	-	(3,473,463)
Construction of new Fire Station 52 (Irvine Business District)	FY 2020/21 Adopted Budget, capped at maximum available restricted fund balance	-	-	-	(391,477)	(391,477)
Net		36,983,500	11,426,292	39,674,630	51,133,523	139,217,945

Possible CIP expenditures, net of offsetting revenues and funding sources (B)		41,235,343	14,374,681	42,084,160	57,155,294	154,849,478
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Over (under) funded as of 6/30/2020 (A-B)		(36,112,219)	(8,253,093)	(37,934,704)	(40,531,549)	(122,831,565)
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Final Fund Balance Assignment

Actual fund balance available for CIP assignment @ 6/30/2020		5,123,124	6,121,588	4,149,456	16,623,745	32,017,913
Less: Over funded amount to be transferred back to the General Fund		-	-	-	-	-
Final fund balance assignment @ 6/30/2020	FYE 6/30/2020 CAFR, page 28	5,123,124	6,121,588	4,149,456	16,623,745	32,017,913

ORANGE COUNTY FIRE AUTHORITY
Fund Balance Assigned for Workers Compensation
Final Calculation
As of June 30, 2020

Attachment 4B

		Self Insurance Fund		
Description	Source	Final Budget	Positive (Negative) Variance	Actual
Revenues:				
Interest	FYE 6/30/2020 CAFR, pages 103, 105	\$ 1,461,251	261,727	\$ 1,722,978
Workers' compensation charges	FYE 6/30/2020 CAFR, pages 103, 105	19,573,944	-	19,573,944
Insurance recoveries	FYE 6/30/2020 CAFR, pages 103, 105	996,183	273,486	1,269,669
Subtotal - revenues		22,031,378	535,213	22,566,591
Expenditures:				
Workers' compensation claims paid	FYE 6/30/2020 CAFR, pages 103, 105	(11,599,428)	(740,694)	(12,340,122)
Subtotal - expenditures		(11,599,428)	(740,694)	(12,340,122)
Total change in fund balance		\$ 10,431,950	\$ (205,481)	\$ 10,226,469
		(A)	(B)	
Assignment for Workers' Compensation:				
Actual assignment @ 6/30/2019	FYE 6/30/2019 CAFR, page 28		\$ 88,772,530	
Budgeted change in fund balance	(A)		10,431,950	
Budgeted assignment @ 6/30/2020			99,204,480	
Variance between final budget and actual amounts	(B)		(205,481)	
Actual assignment @ 6/30/2020	FYE 6/30/2020 CAFR, page 28		\$ 98,998,999	

**Orange County Fire Authority
Calculation of Unencumbered Fund Balance
General Operating Fund (121-12150)*
Fiscal Year 2019/20**

		Final Budget Amounts	Actual Amounts	Variance with Final Budget Positive (Negative)
Property tax revenue (Structural Fire Fund - SFF)		\$ 274,312,362	\$ 277,721,815	\$ 3,409,453
Other revenues		189,534,287	186,057,644	(3,476,643)
Transfers in		507,495	507,495	-
Subtotal revenues and transfers in	(A)	464,354,144	464,286,954	(67,190)
Expenditures		468,599,815	448,527,024	20,072,791
Transfers out		30,083,037	30,083,037	-
Subtotal expenditures and transfers out		498,682,852	478,610,061	20,072,791
Less: Prior year encumbrances		(2,851,945)	(1,678,150)	(1,173,795)
Plus: Current year encumbrances		-	2,644,360	(2,644,360)
Subtotal budgetary expenditures	(B)	495,830,907	479,576,271	16,254,636
Total unencumbered fund balance before adjustments	(A+B)	(31,476,763)	(15,289,317)	16,187,446
Reconciling Items:				
Rebudget of FY 2019/20 uncompleted projects:				
Carryover budgeted FY 2019/20 revenues				7,853,974
Carryover budgeted FY 2019/20 appropriations				(10,468,027)
Subtotal				(2,614,053)
GASB 31 interest adjustment (investment market value)				(38,806)
Subtotal				(38,806)
Total reconciling items	(C)			(2,652,859)
Total unencumbered fund balance with adjustments	(A+B+C)			\$ 13,534,587

FY 2020/21 General Operating Fund budget (expenditures, other uses, and transfers out) \$ 450,491,621

Unencumbered fund balance as a percentage of next year's General Operating Fund budget 3.00%

* In the 2019/20 Financial Statements, the Combined General Fund includes four "sub-funds" as follows: General Fund CIP (12110), Structural Fire Entitlement (171), Workers' Compensation (190), and Settlement Agreement (139) which should not be included in the calculations of unencumbered fund balance. Therefore, activities in these four sub-funds have been eliminated from this calculation. The "General Operating Fund" includes only the General Fund (121) and the Property Management sub-fund (12150), which is identified separately only for internal accounting purposes.



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 19, 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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Logistics Department

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714.573.6028

Patrick Bauer, Property Manager

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714.573.6471

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

Staff continued item from the October 22, 2020 Board of Directors meeting.

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 categorically exempt from CEQA.

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 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. 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.
8. Training Grounds Questions and Answers

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

Attachments Accessible via Link

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.](#)
8. [Training Grounds Questions and Answers](#)

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, 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
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. 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, 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)

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:_____

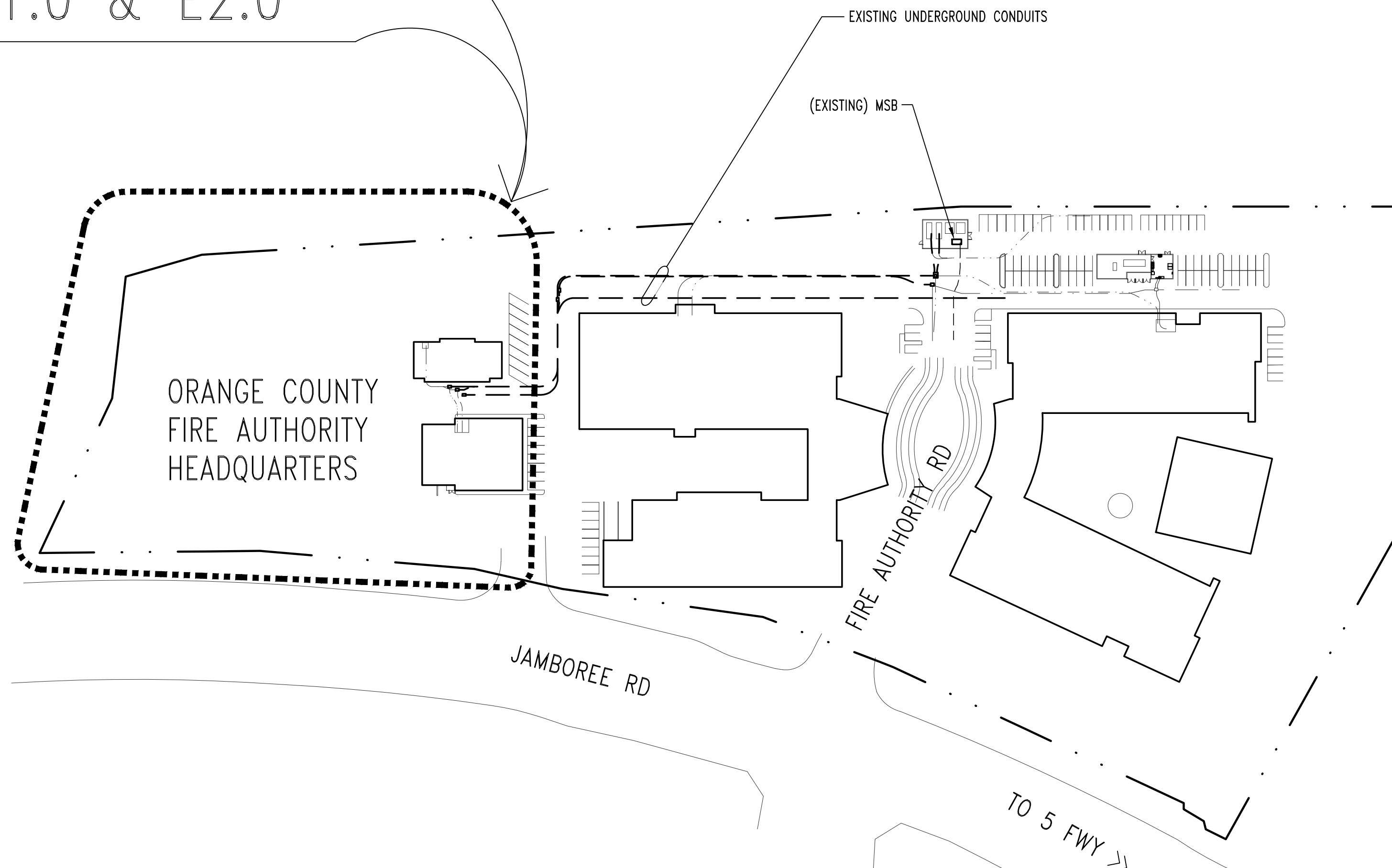
By:_____

Name, Title

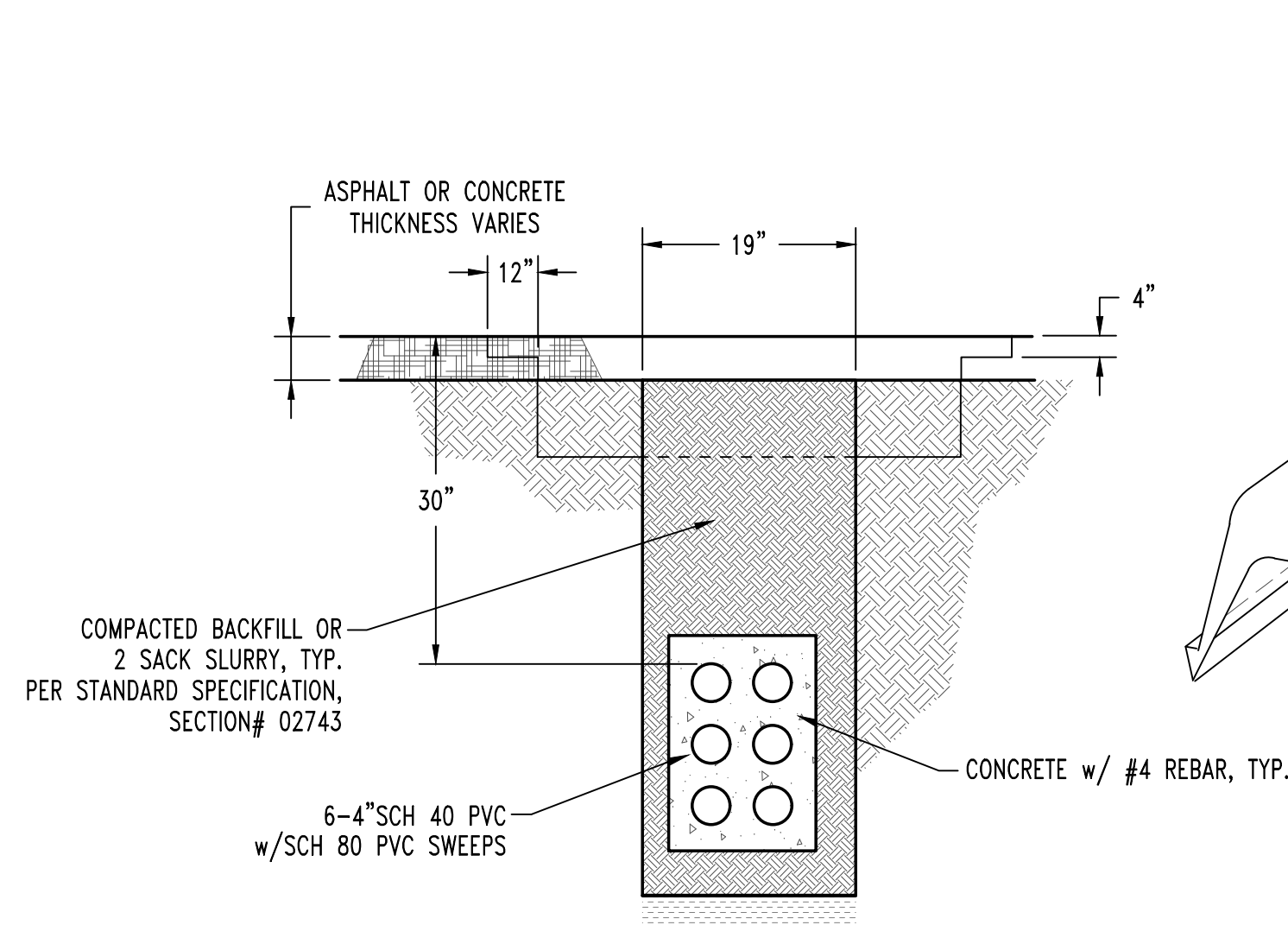
ATTACHMENT TWO: DRAWINGS AND SPECIFICATIONS

Following below are applicable drawings and specifications:

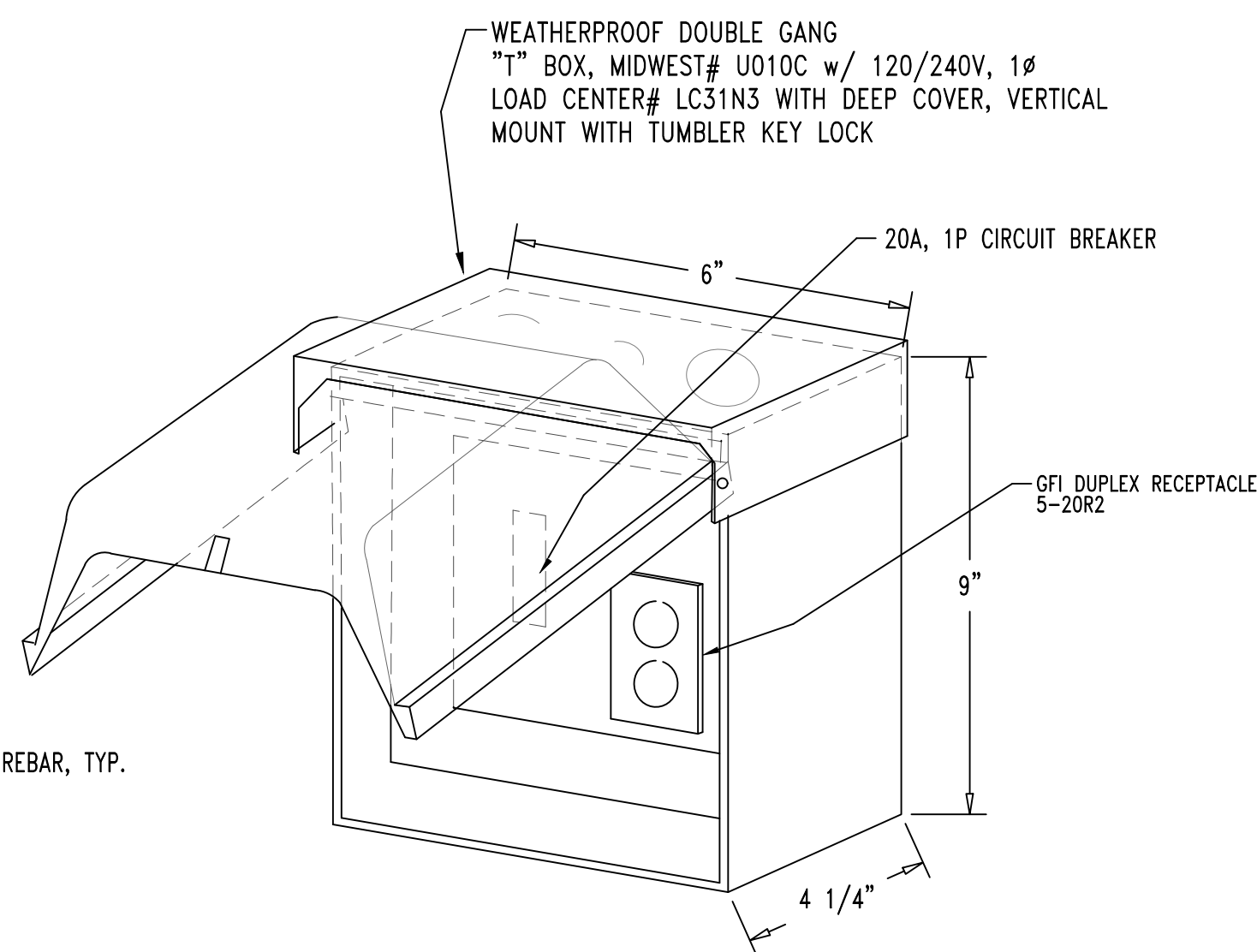
AREA OF WORK
SEE E1.0 & E2.0



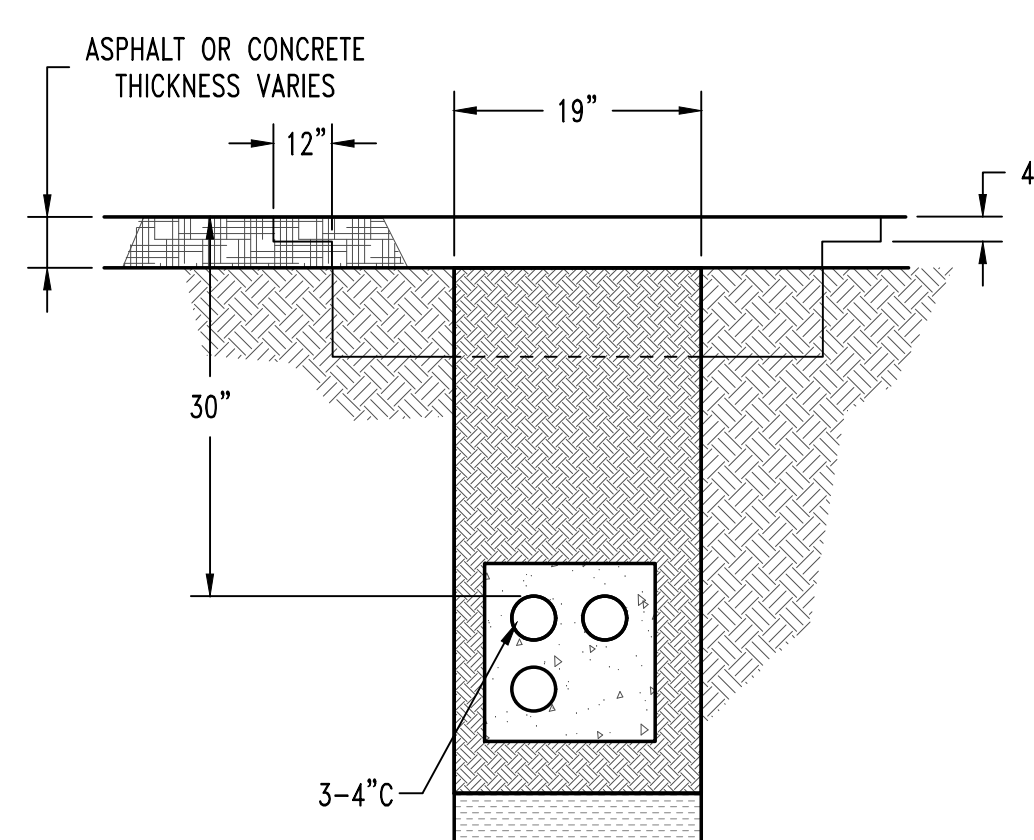
SITE KEY PLAN - TRAINING
SCALE: N.T.S.



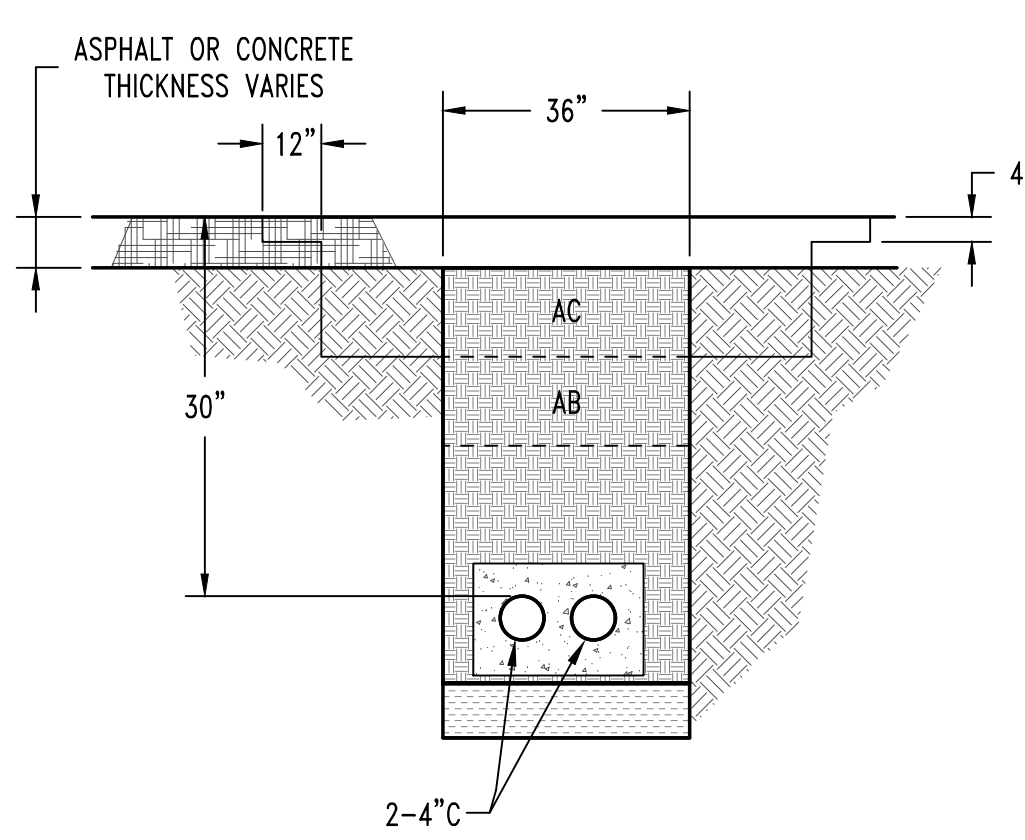
1 POWER DUCT BANK
N.T.S.



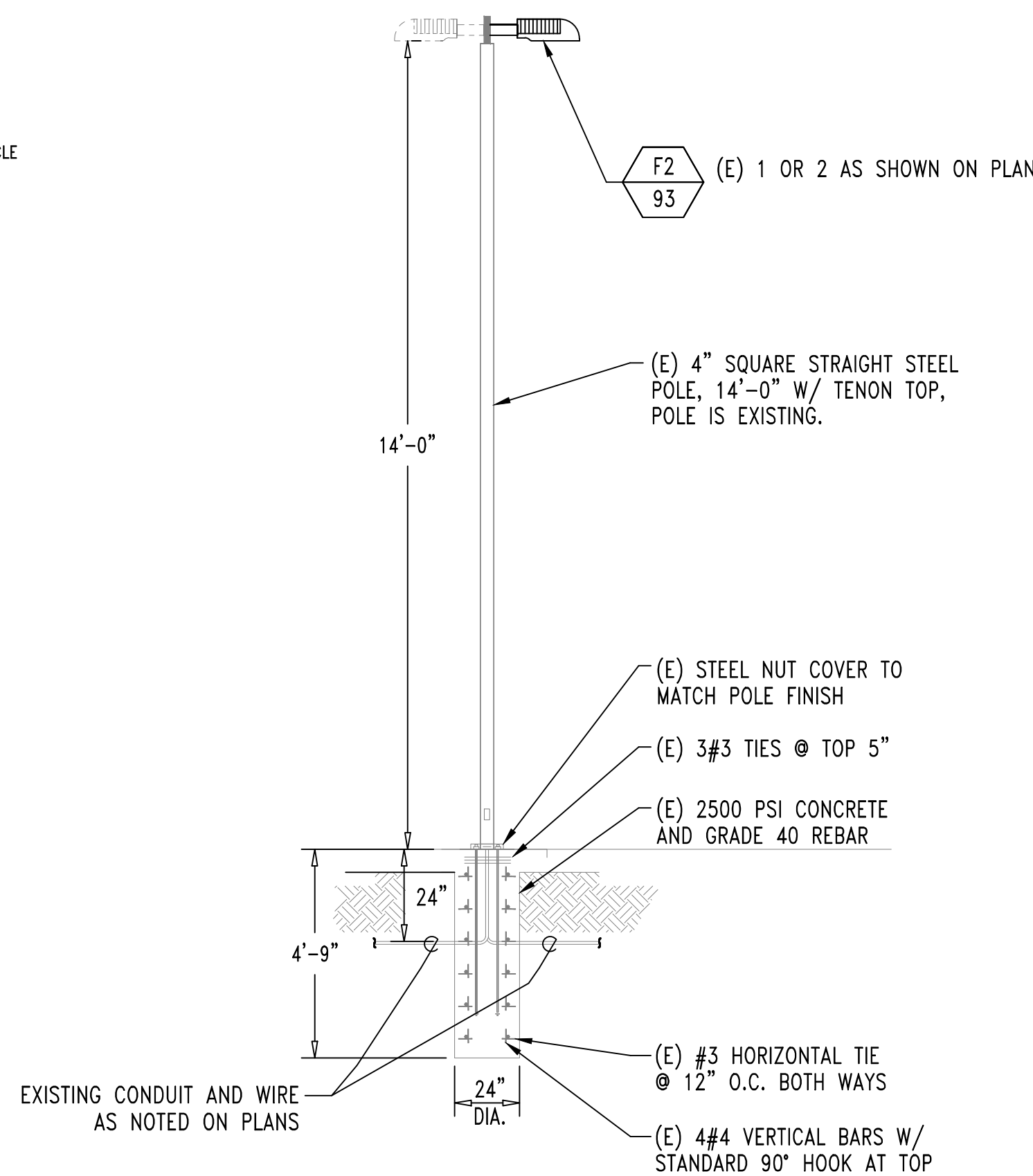
4 WP CB AND RECEPTACLE ENCLOSURE
N.T.S.
SUPPORT WITH 2-P1000 UNISTRUT



2 POWER DUCT BANK
N.T.S.



3 POWER DUCT BANK
N.T.S.



1 POLE DETAIL
N.T.S.

SHEET INDEX	
SHEET NUMBER	SHEET NAME/DESCRIPTION
E0.1	ELECTRICAL SITE & KEY PLAN, SYMBOLS, NOTES & COVER SHEET.
E1.0	ELECTRICAL ENLARGED SITE PLANS
E2.0	ELECTRICAL SINGLE LINE DIAGRAM

STANDARD SYMBOLS - GENERAL	
SYMBOL	DESCRIPTION
	LIGHTING FIXTURE SCHEDULE CALLOUT
	PLAN OR DETAIL CALLOUT
	TITLE UNDER PLAN/DETAIL
	SECTION OR VIEW CALLOUT
PLAN NOTES	
	GENERAL OR SPECIFIC NOTES PERTAINING TO ONE SHEET/PLAN
	PLAN CALLOUT FOR PLAN NOTE
	EQUIPMENT NUMBER CALLOUT
	CONDUIT NUMBER CALLOUT, SEE CONDUIT SCHEDULE
	ROOM NUMBER PER ARCHITECTURAL PLAN
	MISCELLANEOUS CALLOUT PER PLAN
	CONDUIT AND WIRE (SOLID LINE) CONCEAL IN WALLS OR ABOVE CEILING
	UNDERGROUND CONDUIT/SCH 40 PVC SURFACE MOUNTED CONDUIT CONDUIT/SCH 40 PVC TERMINATION OR DIRECTION CHANGE
	HOMERUN PER PLAN CALLOUT

STANDARD SYMBOLS LIST - SINGLE LINE DIAGRAMS	
SYMBOL	DESCRIPTION
	UTILITY METER, 200A OR LESS, 400A OR MORE, RESPECTIVELY
	PHASE INDICATOR
	CIRCUIT BREAKER
	FUSED SWITCH
	STARTER
	PLUG IN DEVICE
	POWER TRANSFORMER, PROVIDE GROUNDING ELECTRODE, CONDUCTOR AND BONDING CONDUITS CONDUCTOR
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER
	MAIN DISCONNECT GROUND FAULT DEVICE
	AUTOMATIC TRANSFER SWITCH
	GENERATOR
	KILOWATTMETER
	DIGITAL METERING DEVICE
TYPICAL SWITCHGEAR LOADS	
	MISCELLANEOUS LOAD
	MOTOR LOAD
	PACKAGE UNIT LOAD (MECHANICAL)
	PANEL LOADS
	LIGHTING LOADS
	HEATING LOADS

GENERAL ELECTRICAL NOTES

- THE INTENT OF THESE DRAWINGS IS TO DESCRIBE A COMPLETE AND OPERABLE SYSTEM. BRING ANY QUESTIONS TO THE ENGINEER'S ATTENTION PRIOR TO BIDDING.
- PROVIDE GROUNDING WHERE INDICATED OR REQUIRED BY CODE.
- ALL INSTALLATIONS SHALL MEET FULLY WITH ALL THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) MATERIAL SHALL BE U.L. LABELED OR LISTED.
- WHERE NON-METALLIC CONDUIT IS USED, PROVIDE GROUND WIRE.
- ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. PREMISES SHALL BE CLEANED OF DIRT AND DEBRIS.
- SUBCONTRACTOR SHALL FURNISH FOR APPROVAL SHOP DRAWINGS OF ALL ELECTRICAL EQUIPMENT, SWITCHGEAR, CONDUIT, WIRE, ETC., AND DEVICES PRIOR TO PURCHASE. ALL DIMENSIONS SHOWN ON ELECTRICAL DRAWINGS ARE PRELIMINARY BASED ON AVAILABLE INFORMATION AT BID TIME. FINAL DIMENSIONS MUST BE VERIFIED WITH ACTUAL EQUIPMENT SIZE AND FIELD VERIFIED DIMENSIONS OF EXISTING SITE/BUILDING CONDITIONS AND EQUIPMENT SIZES.
- ALL CONDUCTORS SHALL BE COPPER TYPE "THIN" BELOW GRADE AND TYPE "THIN/THIN" FOR EXPOSED AND ABOVE GRADE WORK.
- FURNISH AND PAY FOR ALL PERMITS AND BUILDING DEPARTMENT PERMIT CHARGES, INCLUDING ELECTRICAL UTILITY CHARGES. IF THE LOCAL UTILITY CO. CHARGES ARE NOT AVAILABLE AT THE TIME OF BID, INCLUDE AN AMOUNT EQUAL TO 10% OF YOUR TOTAL ELECTRICAL BID AMOUNT.
- COORDINATE ELECTRICAL WORK WITH REQUIREMENTS OF OTHER TRADES.
- NOT USED
- EACH SWITCH TO BE SEPARATE 2"x3" BOX OR 2"x3" SPACE IN GANG BOX.
- THE ELECTRICAL SUBCONTRACTOR MUST BE LICENSED BY THE STATE (C-10) AND MUST VISIT THE JOB SITE PRIOR TO BIDDING, EXAMINE EXISTING CONDITIONS, AND INCLUDE IN HIS BID ALL LABOR AND MATERIAL TO INTERFACE WITH OTHER SYSTEMS. CONTRACTOR QUALIFICATIONS:

CONTRACTOR MUST HAVE BEEN PRIME ELECTRICAL CONTRACTOR (C-10) ON AT LEAST 3 PROJECTS INVOLVING FURNISHING AND INSTALLATION OF HIGH CURRENT, 480V, 1200A (OR HIGHER) CABLE, 1200A A.T.S. AND GENERATOR TESTING.

- CONTROL PANELS
- ALL CUSTOM CONTROL PANELS OR PLC'S MUST BE DESIGNED, CONSTRUCTED, PROGRAMMED AND TESTED BY A U.L. 508 APPROVED PANEL SHOP. SUBMIT ALL FABRICATION DRAWINGS INCLUDING SCHEMATICS, WIRING DIAGRAMS WITH WIRE NUMBERS, BILL OF MATERIALS AND OPERATION MANUAL TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION. ELECTRICAL CONTRACTORS (C-10'S) ARE NOT ACCEPTABLE FOR THIS WORK. A LIST OF TYPICAL U.L. PANEL SHOPS FOLLOWS:

- 1) Z-POWER (714) 307-9198
- 2) PAULSONS ENG'S (714) 523-5927
- 3) MEDINA SYSTEMS (805) 482-7041
- 4) TRI-MAX SYSTEMS (714) 255-8590
- 5) QUANTUM AUTOMATION (714) 854-0800
- 6) OR SUBMIT EQUAL FOR APPROVAL

- TESTING
- THE CONTRACTOR SHALL ENGAGE AND PAY FOR THE SERVICES OF AN OUTSIDE PARTY, THIRD PARTY TESTING COMPANY TO SET AND TEST ALL TOP SETTINGS ON ALL ADJUSTABLE CIRCUIT BREAKERS AND GROUND FAULT DEVICES AND PROVIDE "TEST REPORT DATA SHEETS" TO MULLEN AND ASSOCIATES, INC. ENGINEER PRIOR TO ENERGIZING ANY NEW FEEDERS OR ELECTRICAL SERVICES. IN ADDITION, ALL NEW MEDIUM VOLTAGE CABLE SHALL HAVE INSULATION RESISTANCE TESTED BEFORE AND AFTER INSTALLATION WITH "INSULATION RESISTANCE DATA SHEET" SUBMITTED TO MULLEN AND ASSOCIATES, INC. ENGINEER PRIOR TO ENERGIZING. ALL TESTING SHALL COMPLY WITH NFPA N.E.C. 70E SAFETY REQUIREMENTS AND N.E.T.A. 415-1995 SPECIFICATIONS. USE ONE OF THE FOLLOWING TESTING COMPANIES OR AN APPROVED EQUAL:

- 1) VISTAM (BALAZAR@VISTAM.COM)
- 2) PAULSONS ENG'S (714) 523-5927 (OR 714-523-2166)
- 3) TRANSPOWER, FRANK SHARGH, (949) 235-3215
- 4) OR SUBMIT EQUAL FOR APPROVAL

- ARC-FLASH HAZARD
- ALL ELECTRICAL EQUIPMENT WITH ENERGIZED PARTS SUBJECT TO EXAMINATION OR MAINTENANCE SHALL BE LABELED IN A CLEARLY VISIBLE WAY TO WARN QUALIFIED PERSONNEL OF POTENTIAL ARC FLASH HAZARDS. PROVIDE STICK-ON LABELS FOR EACH OPERABLE ENCLOSURE, DOOR, PER NEC 110.16, NFPA 70E-2009 AND ANSI Z39.4-1998. ALL WORK ON ENERGIZED ELECTRICAL EQUIPMENT REQUIRES PERSONAL PROTECTION EQUIPMENT (PPE) PER NFPA 70E:

- NON-MELTING LONG SLEEVE SHIRT, PANTS, AND UNDERWEARS;
- TYP. ARC-RATED JACKET AND PANTS, SHIRT AND PANTS, COVERALLS.
- HARD HAT AND LEATHER WORK SHOES
- SAFETY GLASSES, SAFETY GOGGLES OR FACE SHIELD
- HEARING PROTECTION (EAR CANAL INSERTS)
- INSULATED RUBBER GLOVES WITH LEATHER PROTECTORS

- THE CONTRACTOR SHALL CONTACT THE ELECTRIC, TELEPHONE, AND CABLE TV COMPANIES AND OBTAIN FROM THEM THEIR REQUIREMENTS FOR CONDUITS, SUBSTRUCTURES, PADS, METERS, BACKBOARDS, PULL BOXES, ETC., AND INCLUDE COST OF FURNISHING AND INSTALLING THIS REQUIRED EQUIPMENT IN BID.

- ALL UNDERGROUND RISERS AND SWEEPS TO BE PVC COATED RIGID STEEL GALVANIZED CONDUIT.

- CONTRACTOR IS TO SLEEVE BUILDING FOUNDATION FOR ALL UTILITY CONDUITS PER STRUCTURAL/ARCHITECTURAL DETAIL AND INSTALL ALL EQUIPMENT AND CONDUITS PER S.M.A.C.N.A. STRUCTURAL AND SEISMIC REQUIREMENTS.

- TEMPORARY POWER FOR CONSTRUCTION, DEMOLITION, OR SYSTEM CHECKOUT IS TO BE PROVIDED BY THE CONTRACTOR AND SHALL BE PER N.E.C. AND CAL OSHA REQUIREMENTS.

- PULL BOXES NOT SPECIFICALLY SIZED ON THE DRAWINGS SHALL BE SIZED PER N.E.C. ARTICLE 370 AND FURNISHED WITH BOLT DOWN TRAFFIC RATED COVER. SET ON 12" PEA GRAVEL BASE.

- PRIOR TO DIGGING OR EXCAVATION, LOCATE U.G. UTILITIES BY CALLING 1-800-422-4133.

- ELECTRICAL EQUIPMENT SHALL BE LISTED BY A CITY OF IRLINE RECOGNIZED ELECTRICAL TESTING LAB OR APPROVED DEPARTMENT.

STANDARD SYMBOLS - POWER	
SYMBOL	DESCRIPTION
	STANDARD DUPLEX OR QUAD RECEPTACLE, MH +15" TO CENTER AFF
	DISCONNECT SWITCH, FUSED PER U.L. NAMEPLATE RATING
	COMBINATION STARTER AND FUSED DISCONNECT SWITCH
	STARTER ONLY
	J BOX
	NON-STANDARD J-BX (J) OR PULL BOX AS NOTED ON PLAN
	SURFACE MOUNTED OR RECESSED PANEL, PER SCHEDULE
	PUSHBUTTON
	TELEPHONE BACKBOARD PER PLAN

SCOPE OF WORK

- RE-FEED EXISTING MODULAR ROOMS.
- FEED NEW: 24 TRUCK BATTERY CHARGERS.
- FEED NEW AND FUTURE PROPS (FOR TRAINING).

CODES

- 2019 - CALIFORNIA BUILDING CODE (CBC)
- 2019 - CALIFORNIA ELECTRICAL CODE (CEC)

STANDARD SYMBOLS LIST - ABBREVIATIONS	
SYMBOL	DESCRIPTION
A	AMPS
AC1	AIR CONDITIONER #
AF	ABOVE FINISHED FLOOR
AC	AVAILABLE INTERRUPTING CURRENT
AL	ALARM
AMP	AMPLIFIER
ARCH	ARCHITECTURAL
ASC	AMPS SHORT CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
BAS	BUILDING AUTOMATION SYSTEM
BKBD	BACKBOARD
BKR	BREAKER
BLDG	BUILDING
CAB	CABINET
CB	CIRCUIT BREAKER
CTV	CABLE TELEVISION
CKT	CIRCUIT
CL	CLOCK
CLF	CURRENT LIMITING FUSE
CLG	CEILING
CONN	CONNECTION
CP1	CONTROL PANEL #
D	DATA OUTLET
DIA	DIMETER
DM	DRAWING
DVR	DIGITAL VIDEO RECORDER
DWG	DRAWING
EDF	ELECTRIC DRIVING FOUNDATION
EFT	EXHAUST FAN #
ELECT	ELECTRICAL
EM	EMERGENCY
ENGR	ENGINEER
EQUIP	EQUIPMENT
EW	ELECTRIC WATER COOLER
F	FLUSH
FA	FIRE ALARM
FBD	FURNISHED BY OTHERS
FDN	FOUNDATION
FL	FLOOR
FLUOR	FLUORESCENT
FUT	FUTURE
FVR	FULL VOLTAGE NON REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRD	GRADE
HSA	HAND-OFF-AUTO
HPT	HORSEPOWER
HP1	HEATPUMP
HVC	HEATING VENTILATION AIR CONDITIONING
I	INTERCOM
IBC	INSTALLED BY CONTRACTOR
IC	INTERCOMUNICATION
INCAND	INCANDESCENT
IRR CONT	IRRIGATION CONTROLLER
IS	INTRUSION SWITCH
J	J BOX
LS	LIMIT SWITCH
LT	LIGHT
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MASTER CONTROL PANEL
MCH	MECHANICAL
MFR	MANUFACTURER
MHT	MOUNTING HEIGHT
MN	MINIMUM
MISC	MISCELLANEOUS
MSB	MAIN SWITCHBOARD
N	NEUTRAL
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MFG'S. ASSOC.
NC	NOT IN CONTRACT
NL	NIGHT LIGHT
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX
PC	PHOTOCELL
PKG	PARKING
PLC	PROGRAMMABLE LOGIC CONTROLLER
PLUMB	PLUMBING
PANEL	PANEL
PP	PAY PHONE
PPH	POWER POLE #
PR	PRIMARY
PS	PRESSURE SWITCH
PT	PRESSURE TRANSDUCER
QTY	QUANTITY
R	RELAY
REC	RECEPTACLE
REFR	REFRIGERATOR
REL	RELAY
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RSG	RIGID STEEL GALVANIZED
RMT	REDUCED VOLTAGE AUTOTRANSFORMER
R/W	RIGHT OF WAY
SC	SOUTHERN CALIFORNIA EDISON
SD	SMOKE DETECTOR
SGR	SMALL GAS & ELECTRIC
SEC	SECONDARY
SEM	SIMILAR
SM	SURFACE MOUNTED
SP	SPECIAL - SEE SCHEDULE
SQ	SQUARE
SQ FT	SQUARE FEET
SS	SOLID STATE
SS	STAINLESS STEEL
SWGR	SWITCHGEAR
TC	TIMECLOCK
TEL	TELEPHONE
TEL	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UGPS	UNDERGROUND FULL SECTION
UN	UNDERMOUNTED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
WP	WEATHERPROOF
WR	WRAPPED
XMR	TRANSFORMER
INSTRUMENT RELAY NUMBERS	
27	UNDERVOLTAGE RELAY
47	PHASE SEQUENCE RELAY
50	INSTANTANEOUS OVERCURRENT RELAY
51	OVERCURRENT RELAY
INDICATOR LIGHT COLORS	
A	AMBER
B	BLUE
G	GREEN
R	RED
W	WHITE

Emergency Electrical Power Dist Training Ctr
for Regional Fire Operations and Training Center

Project
Emergency Electrical Power Dist Training Ctr

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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
☐ 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)

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.

Social security number

____ - ____ - _____

or

Employer identification number

____ - _____

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.

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:

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.

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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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



THE CITY OF IRVINE



1971

BUILDING PLANS



STATEMENT OF SPECIAL INSPECTION

23. N/A **Mechanical and Electrical Components, Section 1705.12.6** Periodic special inspection is required during installation and anchorage of:
- ☐ Electrical equipment for emergency or standby power systems.
- ☐ The piping system(s) and associated mechanical units intended to hazardous materials as indicated on plan sheet(s): _____
- ☐ The HVAC ducts intended to carry hazardous materials as indicated on plan sheet(s): _____
- ☐ The vibration isolation system as indicated on plan sheet(s): _____
24. N/A **Storage Racks and Access Floors, Section 1705.12.7** Periodic special inspection is required during the anchorage of storage racks 8 feet or greater.
25. N/A **Seismic Isolation System, Section 1705.12.8** Periodic special inspection is required during the fabrication and installation of ☐ Isolator units and ☐ energy dissipation devices.
26. N/A **Cold-Formed Steel Special Bolted Moment Frames, Section 1705.12.9** Periodic special inspection shall be provided for the installation of cold-formed steel special bolted moment frames.

SECTION 1705.13: TESTING FOR SEISMIC RESISTANCE

27. N/A **Structural Steel, Section 1705.13.1** The following describes required testing of welds, base metal, weld tab removal sites, and thermally cut surfaces of beam copes or access holes per CBC Section 1708 and AISC 341. MT= Magnetic Particle Testing per Appendix W of Section 1704.2; AISC 341; UT= Ultrasonic Testing per Appendix W, Section 4.1. Testing procedures and acceptance criteria shall conform to AISC 341 and AWS D1.1.
- ☐ K-area welding; web area shall be MT'd for cracks in the k-area base metal within 3 inches minimum of the weld.
- ☐ Complete joint penetration groove welds. All shall be UT'd for materials 5/16 inches or thicker.
- ☐ Complete joint penetration groove welds. 25% of all beam to column connections shall be MT'd.
- ☐ Base metal for lamellar tearing: UT testing for discontinuities behind and adjacent to weld fusion line for all complete joint penetration groove welded connections for tension loading in the through thickness direction of base metal greater than 1 1/2 inch thickness to connected piece greater than 3/4 inch.
- ☐ Flange and web thickness exceeding 1 1/2 inches— welded spikes and connections, — thermally cut surfaces of beam copes and access holes shall be MT or penetrant tested.
- ☐ End of welds from which a weld tab has been removed shall be MT'd. (NOTE: N/A for continuity plate weld tabs)
- ☐ UT percentage reduction protocol is as follows (NOTE: May not exceed that allowed by AISC 341): _____
- ☐ MT percentage reduction protocol is as follows (NOTE: May not exceed that allowed by AISC 341): _____

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PAGE 4 of 5

STATEMENT OF SPECIAL INSPECTION

7. N/A **Metal-Plate-Connected Wood Trusses, Section 1705.5.2** Special inspection of wood trusses with an overall height greater than or equal to 60 inches, or with a clear span greater than or equal to 60 feet is required in accordance with CBC 1705.5.2.
8. X **Soils, Section 1705.6** Footing excavations are subject to verification that proper depth and bearing material have been reached prior to placement of concrete per CBC Table 1705.6 (NOTE: Work performed under a grading permit is subject to separate special inspection requirements.)
9. N/A **Driven Deep Foundations, Section 1705.7** Driven deep foundations are subject to special inspection per CBC Table 1705.7.
10. N/A **Cast-in-Place Deep Foundations, Section 1705.8** Cast-in-place deep foundations are subject to special inspection per CBC Table 1705.8.
11. N/A **Helical Pile Foundation, Section 1705.9** Helical pile foundations are subject to special inspection per CBC Section 1705.9.
12. N/A **Sprayed Fire-Resistant Materials, Section 1705.14** Special inspections and tests of sprayed fire-resistant materials applied to floor, roof, and wall assemblies and structural members shall be performed in accordance with Sections 1705.14.1 through 1705.14.
13. N/A **Mastic and Intumescent Fire-Resistant Coatings, Section 1705.15** Mastic and intumescent fire-resistant coatings applied to structural elements and decks shall be performed in accordance with Association of the Wall and Ceiling Industry (AWCI) Technical Manual 12-B.
14. N/A **Exterior Insulation and Finish Systems (EIFS), Section 1705.16** Exterior insulation and finish systems (EIFS) are subject to special inspection per CBC Section 1705.16.
15. N/A **Fire-Resistant Penetrations and Joints, Section 1705.17** In high-rise buildings or in buildings assigned to Risk Category III or IV, special inspections for through-penetrations, membrane penetration firestops, fire-resistant joint systems, and perimeter fire barrier systems that are tested and listed in accordance with Sections 714.3.1.2, 714.4.2, 715.3, and 715.4 shall be in accordance with Section 1705.17.1 or 1705.17.2.
16. N/A **Smoke Control, Section 1705.18** Via Orange County Fire Authority (OCFA) procedures.

SECTION 1705.12: SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE

The following are applicable to specified seismic force-resisting systems, designated seismic systems, and architectural, mechanical, and electrical components. See CBC Sections 1705.12.1 through 1705.12.9 to determine applicability.

Seismic-Force Resisting Systems. The following describes the seismic-force resisting systems(s) subject to special inspection per applicable CBC Sections 1705.12.1 through 1705.12.9 as indicated below:

17. N/A **Structural Steel, Section 1705.12.1** Special inspections of structural steel in the seismic force resisting systems of buildings shall be performed in accordance with the quality assurance requirements of American Institute of Steel Construction (AISC) 341.

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PAGE 2 of 5

STATEMENT OF SPECIAL INSPECTION

28. N/A **Nonstructural Components, Section 1705.13.2** The registered design professional shall specify on the approved construction documents the requirements for seismic qualification. Certificate of compliance for the seismic qualification shall be provided to the building official as specified in Section 1704.5.
29. N/A **Designated Seismic Systems, Section 1705.13.3** The registered design professional shall specify on the approved construction documents the requirements for seismic qualification. Certificate of compliance for the seismic qualification shall be provided to the building official as specified in Section 1704.5.

SECTION 1705.11: SPECIAL INSPECTIONS FOR WIND RESISTANCE

Special inspections for wind resistance, Section 1705.11 Special inspections for wind resistance specified in Sections 1705.11.1 through 1705.11.3

30. N/A **Structural Wood, Section 1705.11.1** Continuous special inspection is required during field gluing operations of elements of the main windforce-resisting system. Periodic special inspection is required for nailing, bolting, anchoring, and other fastening of elements of the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, and hold-downs.
- Exception:** Special inspections are not required for wood shear walls, shear panels, and diaphragms where the fastener spacing of the sheathing is more than 4 inches on center.
31. N/A **Cold-Formed Steel Light-Frame Construction, Section 1705.11.2** Periodic special inspection is required for welding operations of elements of the main windforce-resisting system. Periodic special inspection is required for screw attachment, bolting, anchoring, and other fastening of elements of the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts), and hold-downs. See Section 1705.11.2 for exceptions.
32. N/A **Wind-Resisting Components, Section 1705.11.3** Periodic special inspection is required for fastening of the following systems and components:
1. Roof covering, roof deck, and roof framing connections.
 2. Exterior wall covering and wall connections to roof and floor diaphragms and framing.

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PAGE 3 of 5

STATEMENT OF SPECIAL INSPECTION

18. N/A **Structural Wood, Section 1705.12.2** For the seismic force-resisting systems:
1. Continuous special inspection shall be required during field gluing operations of elements of the seismic force-resisting system.
 2. Periodic special inspection shall be required for nailing, bolting, anchoring, and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels, and hold-downs.
- Exception:** Special inspections are not required for wood shear walls, shear panels, and diaphragms, including nailing, bolting, anchoring, and other fastening to other elements of the seismic force-resisting system, where the fastener spacing of the sheathing is more than 4 inches on center.
- Provide plan sheet or detail reference where the special inspection is required.
19. N/A **Cold-Formed Steel Light-Frame Construction, Section 1705.12.3** For the seismic force-resisting systems of structures, periodic special inspection shall be required:
1. For welding operations of elements of the seismic force-resisting system; and
 2. For screw attachment, bolting, anchoring, and other fastening of elements of the seismic force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts), and hold-downs.
- Provide plan sheet or detail reference where the special inspection is required.
20. N/A **Designated Seismic Systems, Section 1705.12.4** The special inspector shall examine designated seismic systems requiring seismic qualification in accordance with Section 13.2.2 of ASCE 7 and verify that the label, anchorage and mounting conform to the certificate of compliance.
21. N/A **Architectural Components, Section 1705.12.5** Periodic special inspection is required during the erection and fastening of:
- ☐ Exterior cladding, and exterior or interior veneer, more than 30 feet in height above grade or walking surface, or weighing more than 5 psf as indicated on plan sheet(s): _____
- ☐ Non-bearing walls more than 30 feet in height or weighing more than 15 psf as indicated on plan sheet(s): _____
22. N/A **Access Floors, Section 1705.12.5.1** Periodic special inspection is required for the anchorage of access floors.

FORM 66-110 REV 01/20
PAGE 3 of 5COMMUNITY DEVELOPMENT
Building and Safety

SPECIAL INSPECTION PROGRAM SUMMARY

BUILDING ADDRESS	
1 FIRE AUTHORITY ROAD, IRVINE, CA	
PROJECT DESCRIPTION	
TENANT IMPROVEMENTS TO EXISTING FIRE TRAINING PROPS AND NEW FIRE TRAINING PROPS	
PLAN CHECK NUMBER	
I, as the owner, or agent of the owner (contractors may not employ the special inspector), certify that I, or the architect/engineer of record, will be responsible for employing the special inspector(s) as required by Uniform Building Code (UBC) Section 1701.1 for the construction project located at the site listed above. UBC Section 106.3.5.	
SIGNED	03/13/2020 DATE
ROBERT SCHEIBEL	<input type="checkbox"/> OWNER <input checked="" type="checkbox"/> ENGINEER <input type="checkbox"/> ARCHITECT
PRINT NAME	
RSSE STRUCTURAL ENGINEERS INC.	
FIRM	
I, as the engineer/architect of record, certify that I have prepared the following special inspection program as required by UBC Section 106.3.5 for the construction project located at the site listed above.	
SIGNED	03/13/2020 DATE
RSSE STRUCTURAL ENGINEERS INC.	(949) 461-7007
FIRM PHONE	
1. LIST OF WORK REQUIRING SPECIAL INSPECTION	
<input checked="" type="checkbox"/> CONCRETE	<input checked="" type="checkbox"/> STRUCTURAL WELDING
<input checked="" type="checkbox"/> BOLTS IN CONCRETE AND EPOXY INSTALLATION	<input type="checkbox"/> HIGH-STRENGTH BOLTING
<input type="checkbox"/> SPECIAL-MOMENT RESISTING FRAME	<input checked="" type="checkbox"/> STRUCTURAL MASONRY
<input checked="" type="checkbox"/> REINFORCING STEEL	<input type="checkbox"/> INSULATING CONCRETE FILL OR REINFORCED GYPSUM CONCRETE
<input type="checkbox"/> PRESTRESSED CONCRETE	<input type="checkbox"/> SPRAY-APPLIED FIREPROOFING
<input type="checkbox"/> PILING AND DRILLED PIERS	<input type="checkbox"/> SHOTCRETE
<input type="checkbox"/> SMOKE-CONTROL SYSTEM	<input type="checkbox"/> OTHER:
2. NAME(S) OF INDIVIDUAL(S) OR FIRM(S) RESPONSIBLE FOR THE SPECIAL INSPECTIONS LISTED ABOVE:	
A. SHALL BE DETERMINED PRIOR TO START OF CONSTRUCTION.	
B. _____	
C. _____	
3. DUTIES OF THE SPECIAL INSPECTORS FOR THE WORK LISTED ABOVE: (Attach additional sheets as necessary)	
A. SHALL BE DEFINED ON SHEET S1, SECTION III AND SECTION IV.	
B. _____	
C. _____	

Special inspectors shall notify the City of Irvine Building and Safety Division at 949-724-6331 and present their credentials for approval prior to beginning work on the job site.

FORM 65-09 REV 04/13

COMMUNITY DEVELOPMENT
Building and Safety

STATEMENT OF SPECIAL INSPECTION

Special inspections shall be performed in accordance with Chapter 17 of the California Building Code (CBC) and the City of Irvine Special Inspection Manual.

INSTRUCTIONS: Place an X preceding each applicable section or indicate N/A if not applicable. Provide a complete and detailed description, detail, or plan sheet reference where required to complete an applicable section. Incorporate this completed form in its entirety into the project construction plans for plan check review.

SECTION 1705 : SPECIAL INSPECTIONS

1. N/A **Special Cases, Section 1705.1.1** The following describes additional systems or elements subject to special inspection as required by the Chief Building Official, Engineer of Record, manufacturer's instructions, or Evaluation Report:
2. X **Structural Steel, Section 1705.2** Special inspections and nondestructive testing of structural steel elements shall be in accordance with AISC 360. Offsite fabrication may only be performed by an approved fabricator. See City of Irvine Informational Bulletin 311.
- Cold-Formed Steel Deck, Section 1705.2.2** Special inspections for cold formed steel floor and roof deck shall be in accordance with the quality assurance inspection requirements of SDI QA/QC.
- Open-Web Steel Joists and Joist Girders, Section 1705.2.3** Special inspections of open-web steel joists and joist girders shall be in accordance with Table 1705.2.3.
3. X **Concrete Construction, Section 1705.3** All structural concrete is subject to special inspection per CBC Table 1705.3 and City of Irvine Information Bulletin 181.
4. X **Masonry Construction, Section 1705.4** Special inspections and tests of masonry construction shall be performed in accordance with the quality assurance program requirements of TMS 402/ACI 530/ASCE 5 and TMS 602/ACI 530.1/ASCE 6 except masonry fireplaces, masonry heaters, or masonry chimneys installed or constructed in accordance with Section 2111, 2112, or 2113, respectively.
5. X **Wood Construction, Section 1705.5** Special inspections of prefabricated wood structural elements and assemblies shall be in accordance with Section 1704.2.5. Offsite fabrication may only be performed by an approved fabricator. See City of Irvine Informational Bulletin 311.
6. N/A **High Load Diaphragms, Section 1705.5.1** The following describes high load diaphragms (diaphragms designed in accordance to CBC Table 2306.2) subject to special inspection requirements as described in Section 1704.2 (plan sheet or detail reference is acceptable):

FORM 66-110 REV 01/20
PAGE 1 of 5City of Irvine, Building & Safety Division
1 Civic Center Plaza, Irvine, CA 92606
Phone No. (949) 724-6000

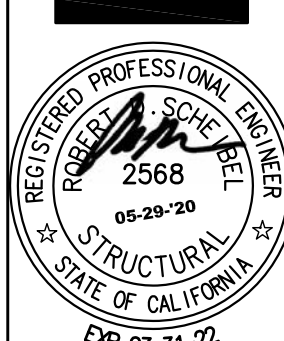
STRUCTURAL OBSERVATION PROGRAM

PROJECT ADDRESS: 1 FIRE AUTHORITY ROAD, IRVINE, CA. PERMIT APPL. NO. : _____

Description of Work: TENANT IMPROVEMENTS TO EXISTING FIRE TRAINING PROPS AND NEW FIRE TRAINING PROPS

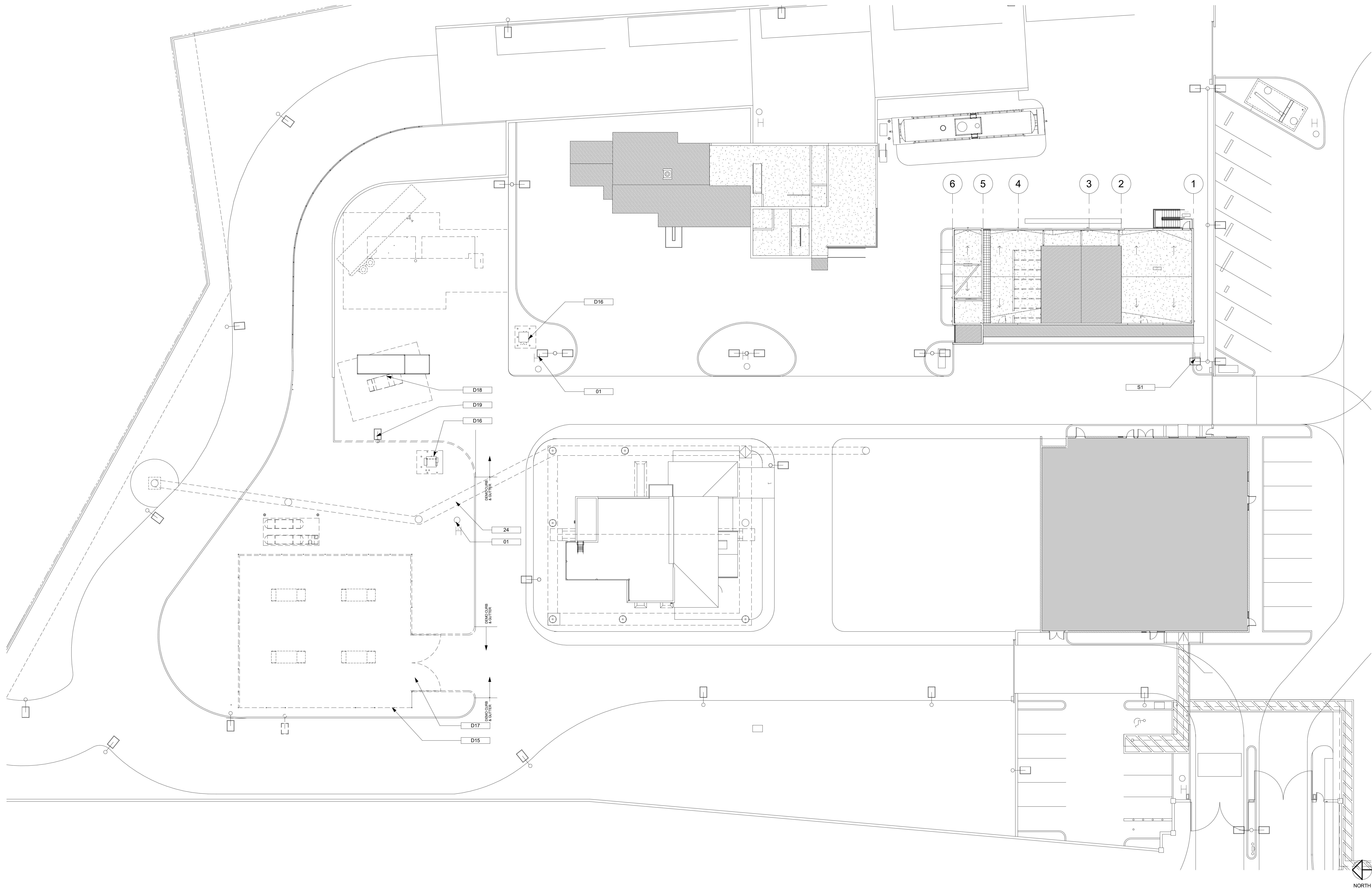
Owner: ORANGE COUNTY FIRE AUTHORITY Architect: G² SOLUTIONS GROUP, INC. Engineer: RSSE STRUCTURAL ENGINEERS INC.

STRUCTURAL OBSERVATION (Only Checked Items Are Required)			
Firm or Individual to be responsible for the Structural Observation: RSSE STRUCTURAL ENGINEERS INC.			
Name: _____ Phone: () _____ Calif. Registration: _____			
FOUNDATION	WALL	FRAME	DIAPHRAGM
<input checked="" type="checkbox"/> Footing, Stem Walls, Piers	<input type="checkbox"/> Concrete	<input type="checkbox"/> Steel Moment Frame	<input type="checkbox"/> Concrete
<input type="checkbox"/> Mat Foundation	<input checked="" type="checkbox"/> Masonry	<input type="checkbox"/> Steel Braced Frame	<input checked="" type="checkbox"/> Steel Deck
<input type="checkbox"/> Calsson, Piles, Grade Beams	<input type="checkbox"/> Wood	<input type="checkbox"/> Concrete Moment Frame	<input type="checkbox"/> Wood
<input type="checkbox"/> Stepping/Retaining Foundation	<input type="checkbox"/> Others:	<input type="checkbox"/> Masonry Wall Frame	<input type="checkbox"/> Others
<input type="checkbox"/> Others:	<input type="checkbox"/> Others:	<input type="checkbox"/> Others:	<input type="checkbox"/> Others
This project is structurally repetitive in the following manner: _____			
Due to the repetitive nature described above and subject to the conditions of City of Irvine Informational Bulletin No. 251, structural observation will be performed as follows: _____			

REGISTERED PROFESSIONAL ENGINEER
2568
09-29-20
STATE OF CALIFORNIA
STRUCTURAL
RSSE
STRUCTURAL ENGINEERS
17300 Jamboree Road, Suite 100, Irvine, CA 92618
(949) 461-7007
Fax: (949) 461-7007G² Solutions Group, Inc.
17300 Jamboree Road, Suite 100, Irvine, CA 92618
(949) 461-7007
Fax: (949) 461-7007ORANGE COUNTY
FIRE AUTHORITYOCFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONSSTRUCTURAL NOTES
SCALE: N.T.S.

SHEET NO.

T - 2



TRAINING GROUNDS SITE DEMOLITION PLAN 1/16" = 1'-0" 1

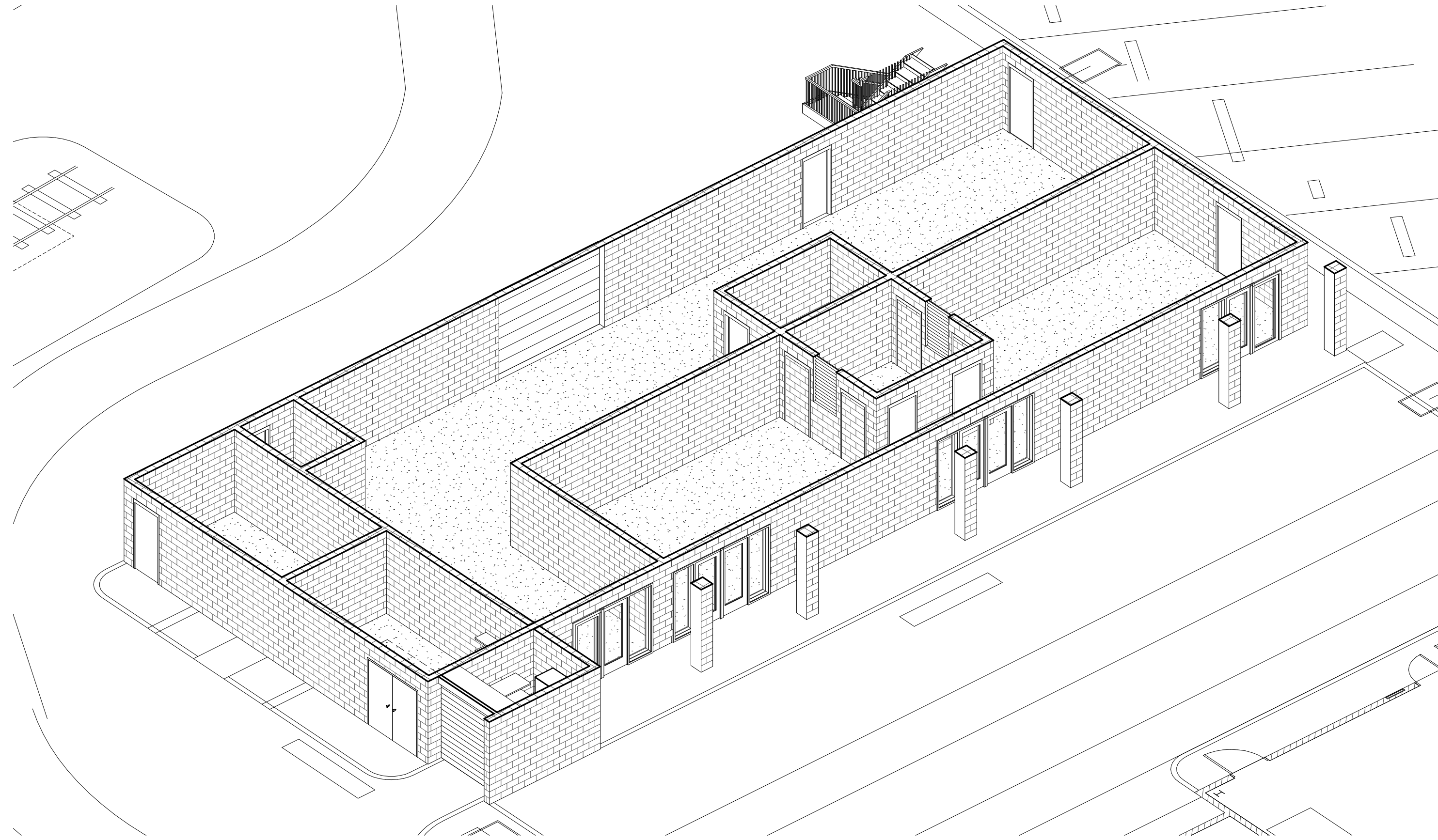
Key Value	Keynote Text
01	EXISTING FIRE HYDRANT: PROTECT IN PLACE
24	EXISTING UNDERGROUND CONFINED SPACE PROP: PROTECT IN PLACE
D15	REMOVE (E) CHAIN LINK FENCING, SCREEN AND FOOTINGS
D16	REMOVE (E) LIVE FIRE PROP CONTROLS AND CONCRETE PAD
D17	REMOVE (E) CHAIN LINK GATES
D18	REMOVE (E) LIVE FIRE CAR PROP AND INFRASTRUCTURE
D19	REMOVE & SALVAGE (E) LIGHT POLE. REMOVE CONCRETE BASE
S1	

KEYNOTES

- CONTRACTOR SHALL VISIT THE EXISTING SITE AND REVIEW ALL EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING.
- DIMENSIONS SHOWN ARE FROM EXISTING ELEMENTS ON SITE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR ACCURACY. NEW CONSTRUCTION AND INSTALLATION MAY VARY IN ACTUAL LOCATIONS BASED ON EXISTING FIELD CONDITIONS.
- CONTRACTOR SHALL REVIEW ALL ASSOCIATED DISCIPLINE DRAWINGS, SUCH AS CIVIL, ELECTRICAL AND STRUCTURAL PRIOR TO BEGINNING OF WORK FOR COORDINATION.
- PRIOR TO ANY EXCAVATION WORK, CONTRACTOR SHALL CONFIRM SUB-SURFACE UTILITIES TO AVOID DAMAGE AND/OR INTERRUPTIONS.
- CONTRACTOR SHALL BE AWARE THAT THE FACILITY WILL REMAIN IN USE DURING PLANNED CONSTRUCTION. ALL WORK, INCLUDING, DELIVERIES, STAGING, EXCAVATION AND SAFETY INCORPORATION SHALL BE COORDINATED WITH ORANGE COUNTY FIRE SITE PERSONNEL PRIOR.
- SITE DEMOLITION. DRAWINGS WERE PREPARED WITH BASED ON THE LATEST AVAILABLE ELECTRONIC INFORMATION. ARCHITECT IS AWARE THAT VARIOUS DISCREPANCIES MAY EXIST WITHIN THE SITE INCLUDING, BUT NOT LIMITED TO: PAVEMENT MODIFICATIONS, ADDITIONAL STRUCTURES, PREVIOUSLY REMOVED EQUIPMENT AND ELEMENTS, ETC.

SITE DEMOLITION NOTES

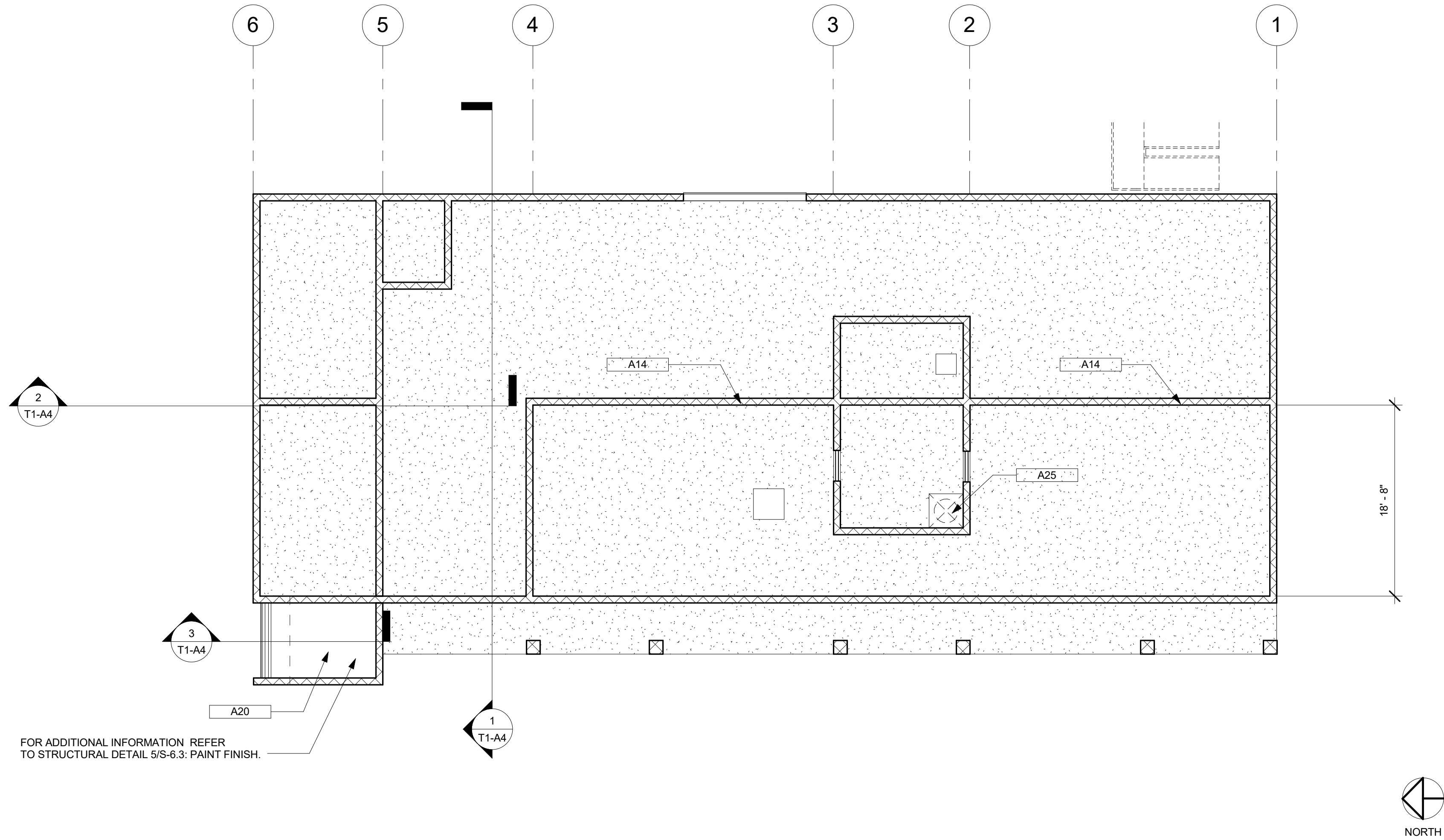




1st LEVEL ISOMETRIC FLOOR PLAN

3/32" = 1'-0"

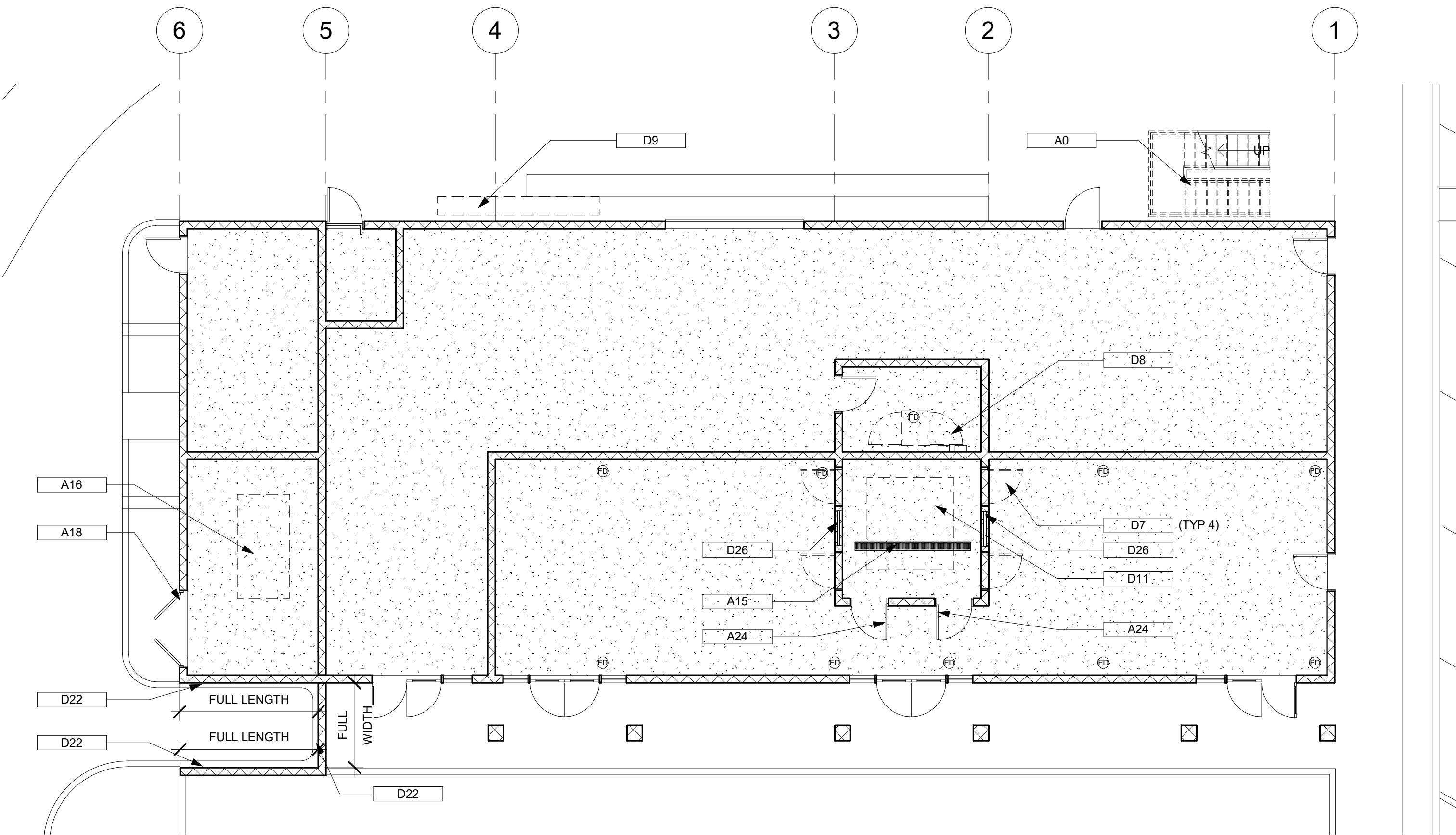
4



1st LEVEL REFLECTED CEILING PLAN

3/32" = 1'-0"

3



1st LEVEL DEMOLITION PLAN

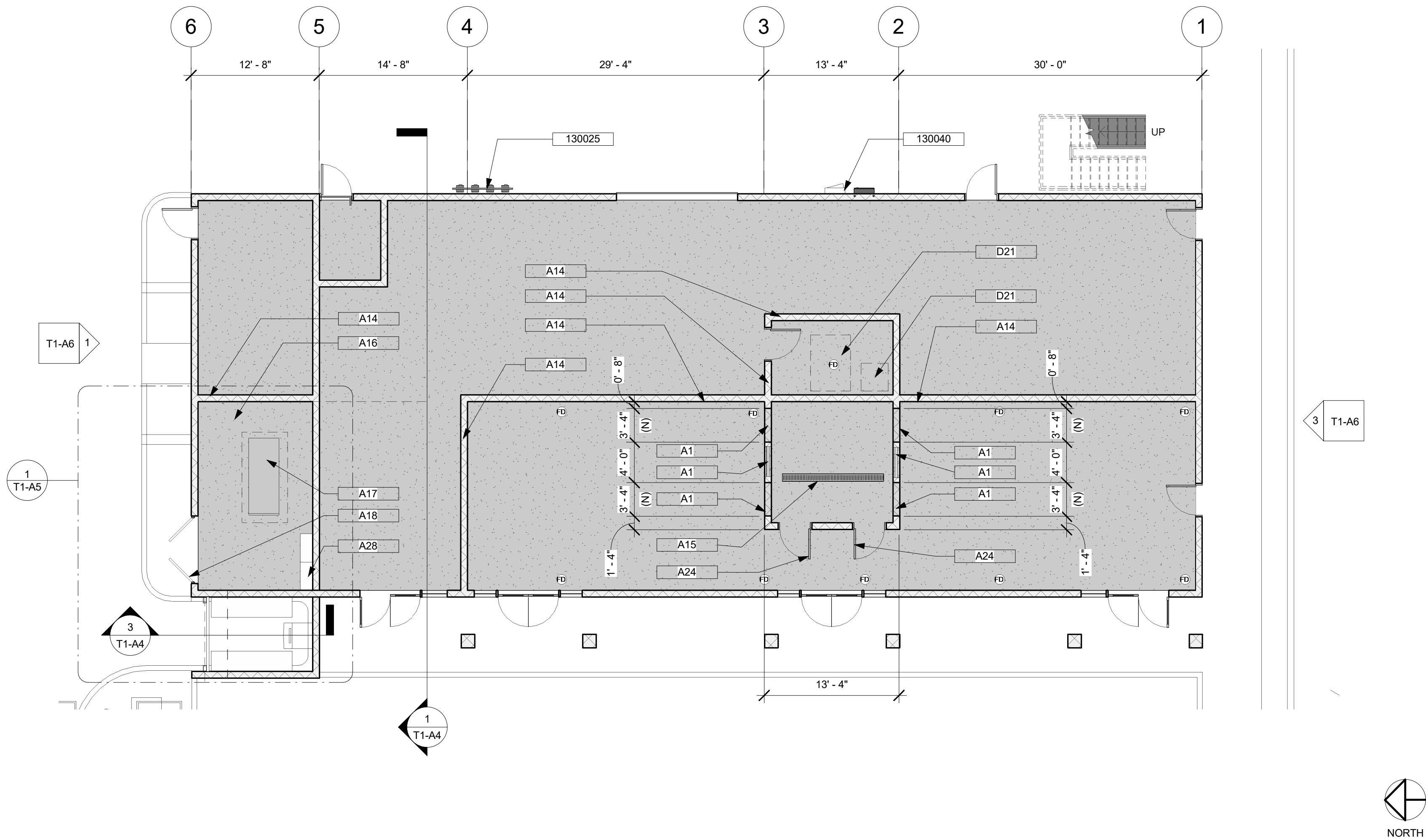
3/32" = 1'-0"

2

Key Value	Keynote Text
130025	(N) WALL EXTERIOR WALL MOUNTED GAS METER MANIFOLD PROP
130040	(N) WALL EXTERIOR WALL MOUNTED SIMULATED ELECTRICAL PANEL PROP
A0	EXISTING CONSTRUCTION: PROTECT IN PLACE
A1	FILL IN (E) DOOR OPENING WITH (N) CMU: REFER TO STRUCTURAL PLANS
A14	EXISTING INTERIOR CMU WALL TO REMAIN: PROTECT IN PLACE
A15	EXISTING FLOOR DRAIN ASSEMBLY: PROTECT IN PLACE
A16	SAWCUT AND REMOVE (E) CONCRETE SLAB: REFER TO DETAIL 1/TD-2
A17	SCBA BOTTLE FILL UNIT: OWNER FURNISHED. CONTRACTOR TO INSTALL
A18	EXISTING H.M. DOORS: MODIFY PER DETAIL 6/TD-4

Key Value	Keynote Text
A20	NEW STRUCTURAL FRAMING, PAINT FINISH: REFER TO STRUCTURAL PLANS
A24	EXISTING HOLLOW METAL DOOR: PROTECT IN PLACE
A25	EXISTING LIVE FIRE PROP EMERGENCY FAN: REFER TO SPECIFICATIONS
A28	FURNISHINGS & EQUIPMENT BY OWNER
D7	REMOVE EXISTING HOLLOW METAL DOOR AND FRAME IN CMU WALL
D8	REMOVE (E) LIVE FIRE PROP CABINET AND EQUIPMENT
D9	REMOVE (E) NATURAL GAS MANIFOLD AND SHUT-OFF ASSEMBLY
D11	REMOVE (E) STORAGE LIVE FIRE PROP AND ASSOCIATED INFRASTRUCTURE
D21	REMOVE (E) LIVE FIRE PROP EQUIPMENT, PIPING AND SYSTEMS: SALVAGE
D22	REMOVE (E) CONCRETE CURB AT (E) WALL
D26	REMOVE (E) WALL LOUVER

KEYNOTES



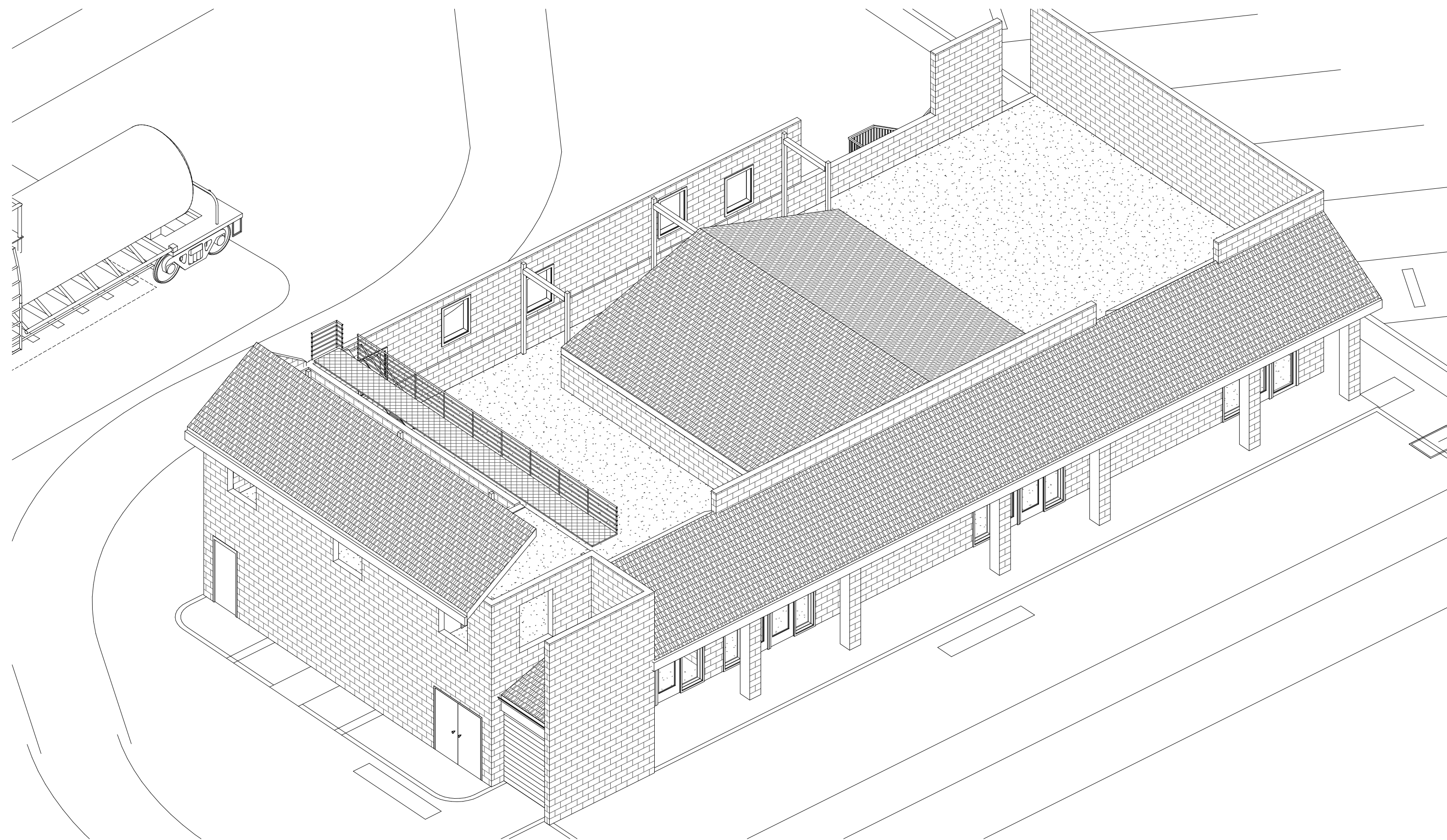
1st LEVEL MODIFICATION PLAN

3/32" = 1'-0"

1

- CONTRACTOR SHALL VISIT THE EXISTING SITE AND REVIEW ALL EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING.
- DIMENSIONS SHOWN ARE FROM EXISTING ELEMENTS ON SITE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR ACCURACY. NEW CONSTRUCTION AND INSTALLATION MAY VARY IN ACTUAL LOCATIONS BASED ON EXISTING FIELD CONDITIONS.
- CONTRACTOR SHALL REVIEW ALL ASSOCIATED DISCIPLINE DRAWINGS, SUCH AS CIVIL, ELECTRICAL AND STRUCTURAL PRIOR TO BEGINNING OF WORK FOR COORDINATION.
- PRIOR TO ANY EXCAVATION WORK, CONTRACTOR SHALL CONFIRM SUB-SURFACE UTILITIES TO AVOID DAMAGE AND/OR INTERRUPTIONS.
- CONTRACTOR SHALL BE AWARE THAT THE FACILITY WILL REMAIN IN USE DURING PLANNED CONSTRUCTION. ALL WORK, INCLUDING, DELIVERIES, STAGING, EXCAVATION AND SAFETY INCORPORATION SHALL BE COORDINATED WITH ORANGE COUNTY FIRE SITE PERSONNEL PRIOR.
- CONTRACTOR SHALL REVIEW STRUCTURAL DRAWINGS AND DETAILS IN CONJUNCTION WITH THE ARCHITECTURAL PLANS FOR ADDITIONAL SCOPE OF WORK REQUIREMENTS. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND/OR STRUCTURAL ENGINEER OF ANY DISCREPANCIES.
- ALL ROOF PLYWOOD SHALL BE FIRE TREATED PLYWOOD, CLASS 1, TYPE A WITH A FLAME SPREAD RATING LESS THAN 25, AWPA UCFA (C-20) STANDARDS, UL LISTED AS MANUFACTURED BY ROYAL PLYWOOD CO. 14171 E. PARK PLACE, CERRITOS, CA 90703 (562) 404-2989 OR APPROVED EQ.

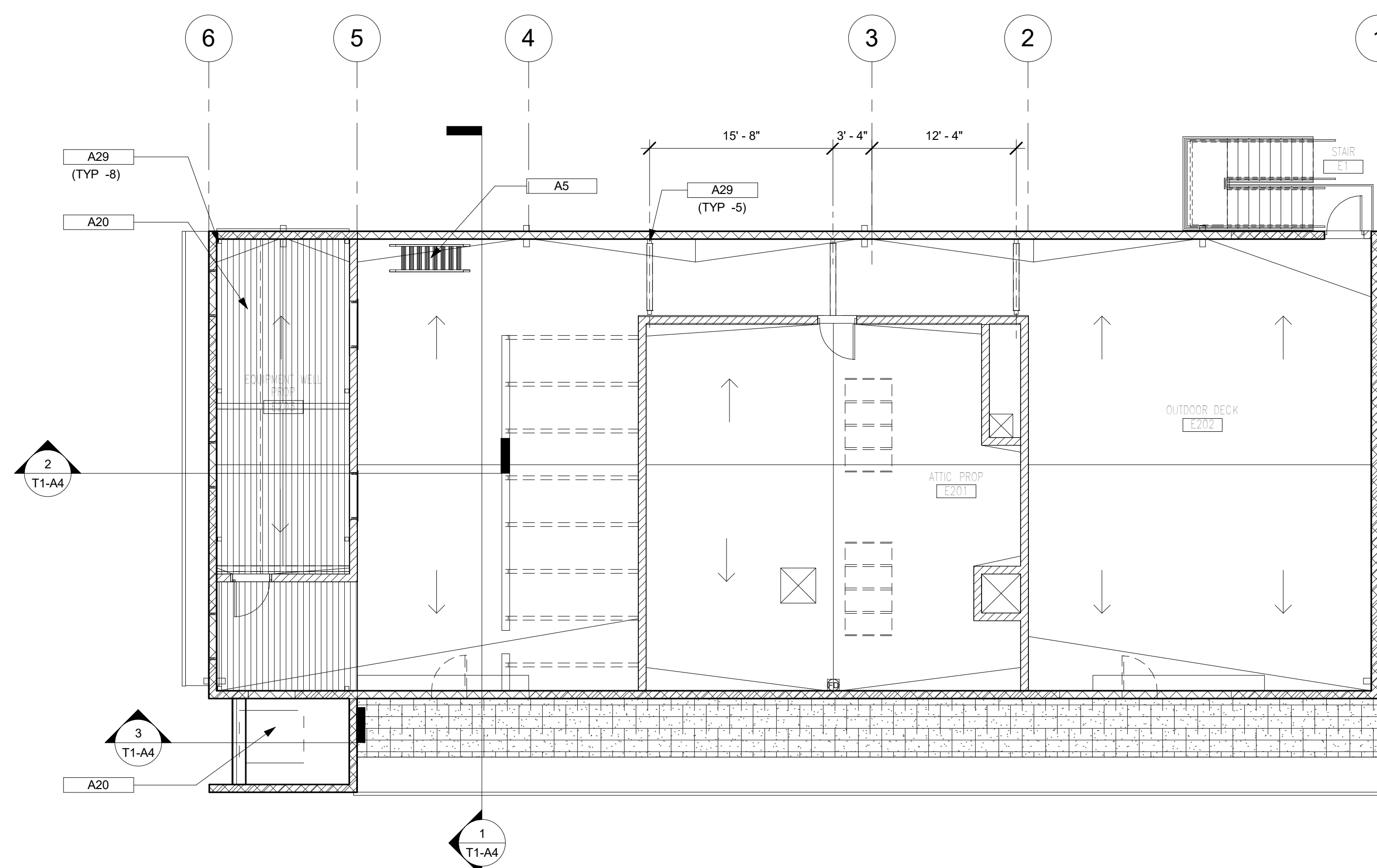
TASK 3: STRIP MALL MODIFICATION GENERAL NOTES



2nd LEVEL ISOMETRIC FLOOR PLAN

3/32" = 1'-0"

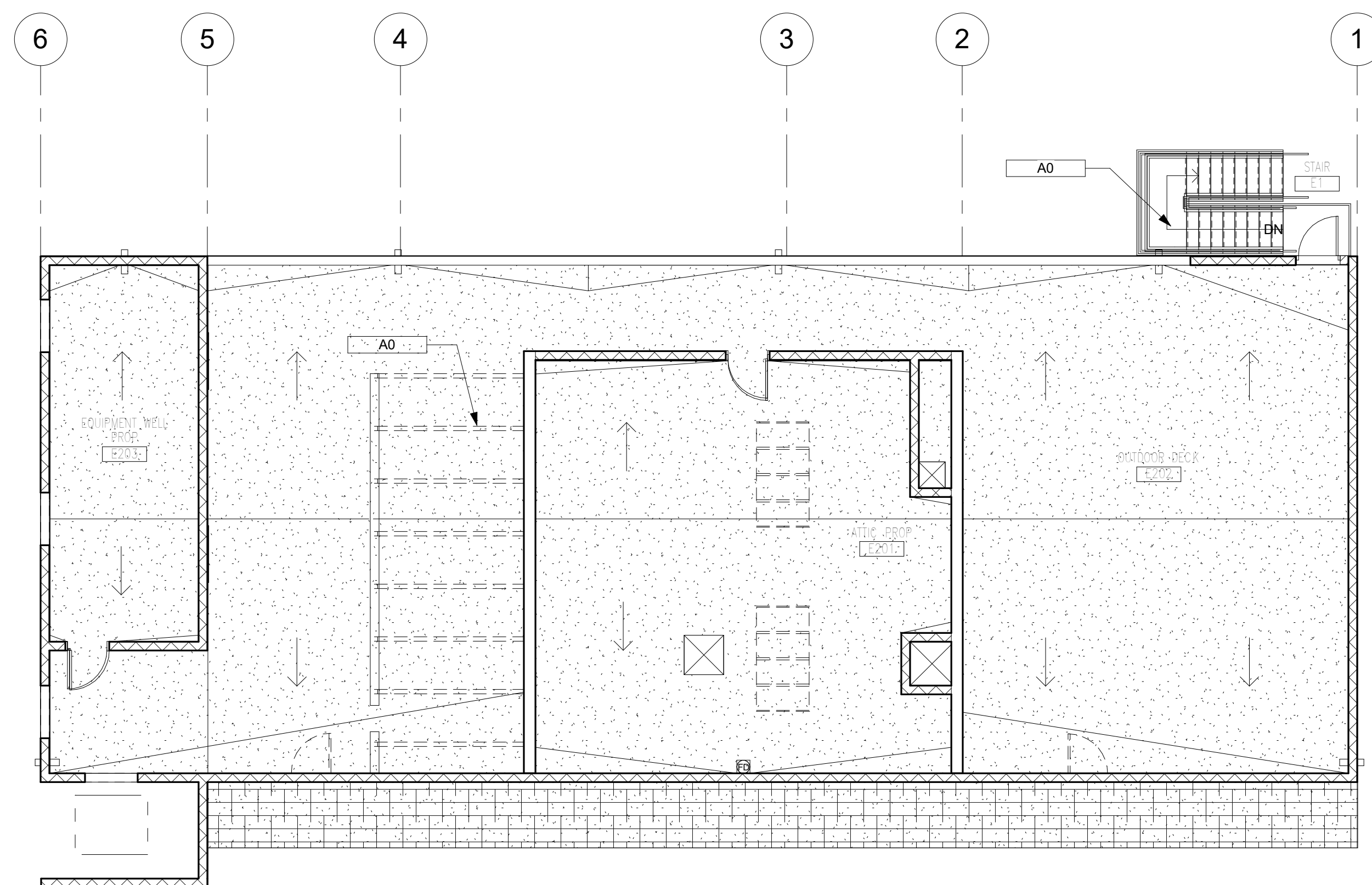
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2nd LEVEL REFLECTED CEILING PLAN

3/32" = 1'-0"

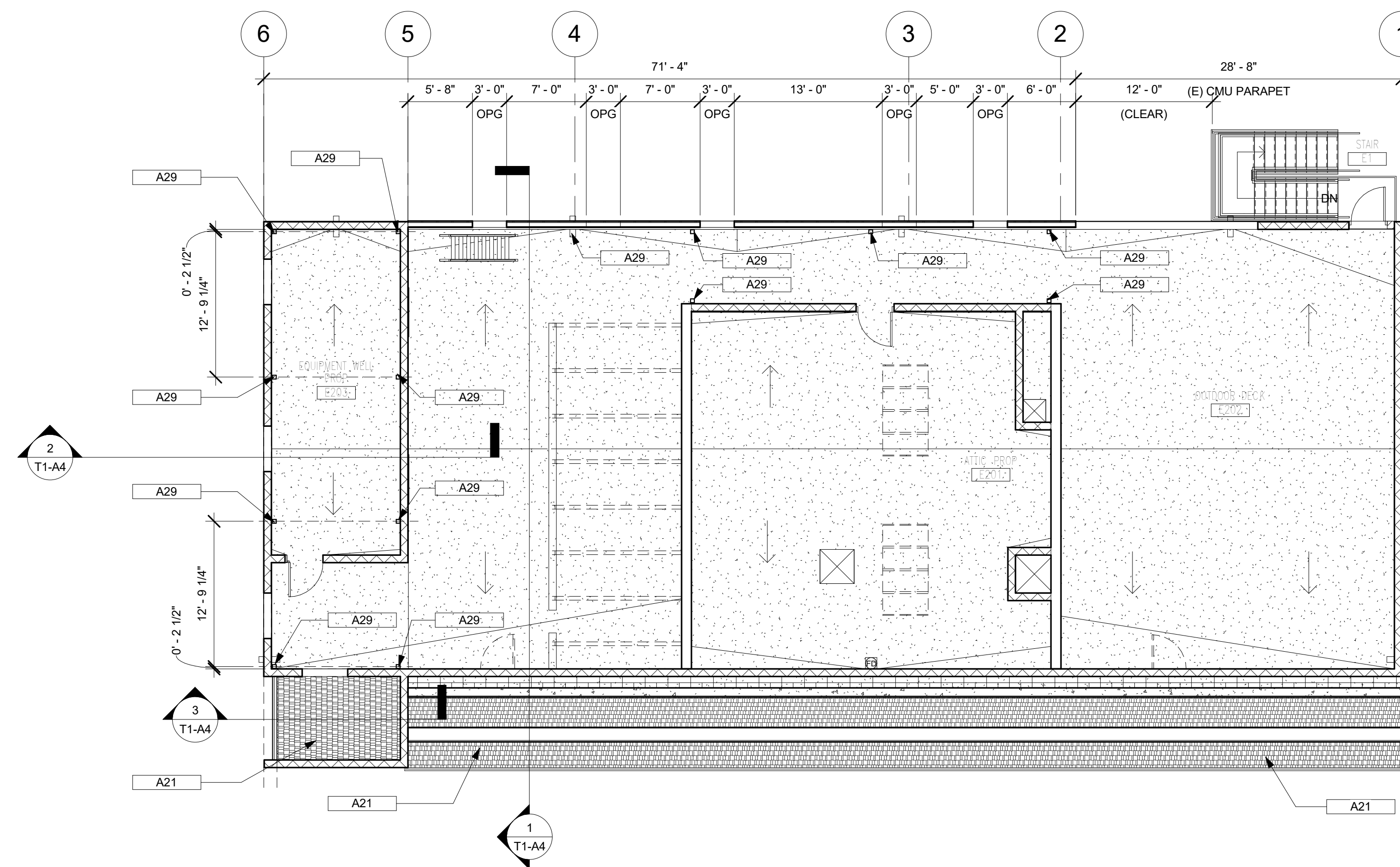
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2nd LEVEL DEMOLITION PLAN

3/32" = 1'-0"

2



2nd LEVEL MODIFICATION PLAN

3/32" = 1'-0"

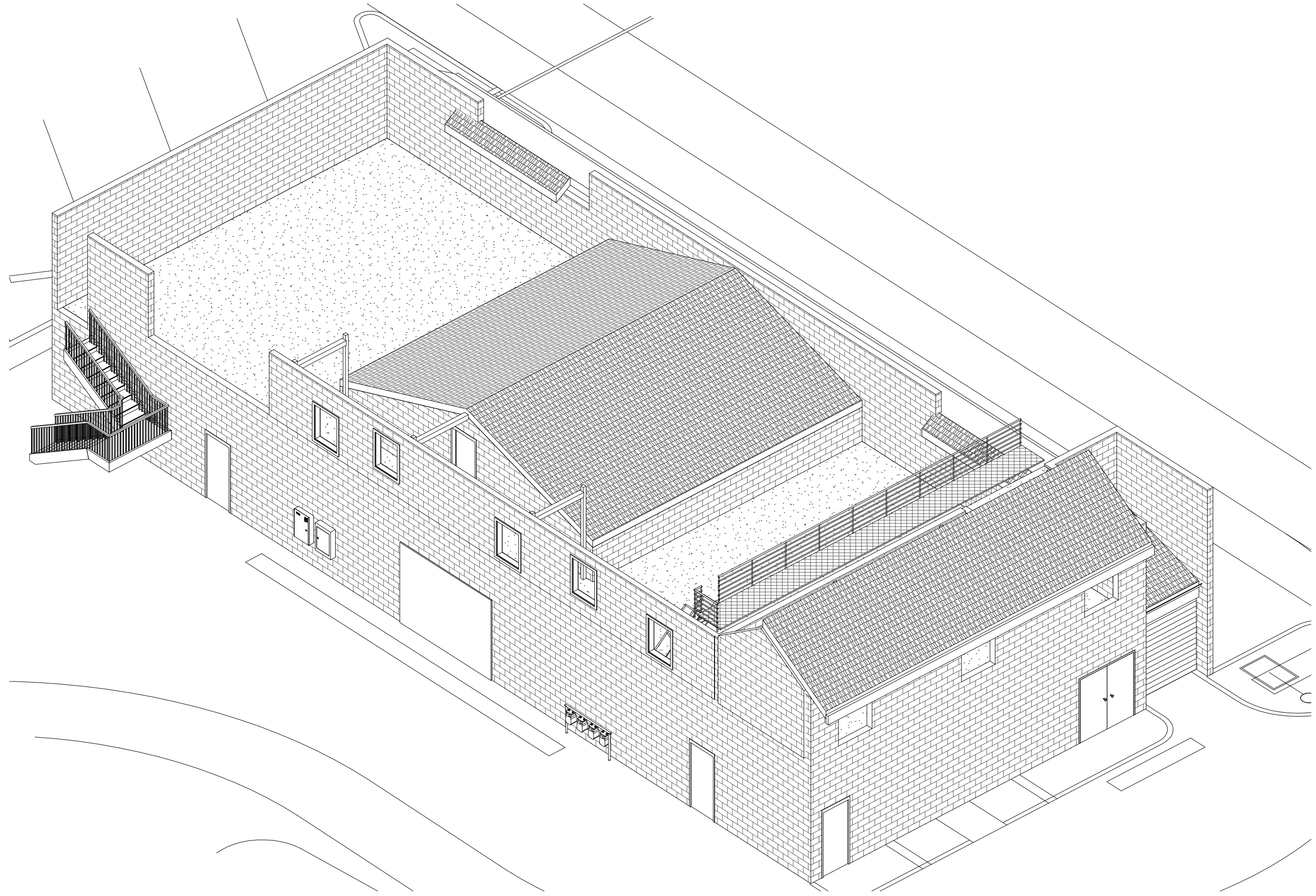
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Key Value	Keynote Text
A0	EXISTING CONSTRUCTION: PROTECT IN PLACE
A5	NEW RETRACTABLE SHIP LADDER AT WALL: REFER TO DETAIL REFERENCE
A20	NEW STRUCTURAL FRAMING, PAINT FINISH: REFER TO STRUCTURAL PLANS
A21	NEW SLOPED ROOF SECTION: REFER TO DETAILS AND STRUCTURAL
A29	NEW STEEL COLUMN, PAINT FINISH: REFER TO STRUCTURAL

KEYNOTES

- CONTRACTOR SHALL VISIT THE EXISTING SITE AND REVIEW ALL EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING.
- DIMENSIONS SHOWN ARE FROM EXISTING ELEMENTS ON SITE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR ACCURACY. NEW CONSTRUCTION AND INSTALLATION MAY VARY IN ACTUAL LOCATIONS BASED ON EXISTING FIELD CONDITIONS.
- CONTRACTOR SHALL REVIEW ALL ASSOCIATED DISCIPLINE DRAWINGS, SUCH AS CIVIL, ELECTRICAL AND STRUCTURAL PRIOR TO BEGINNING OF WORK FOR COORDINATION.
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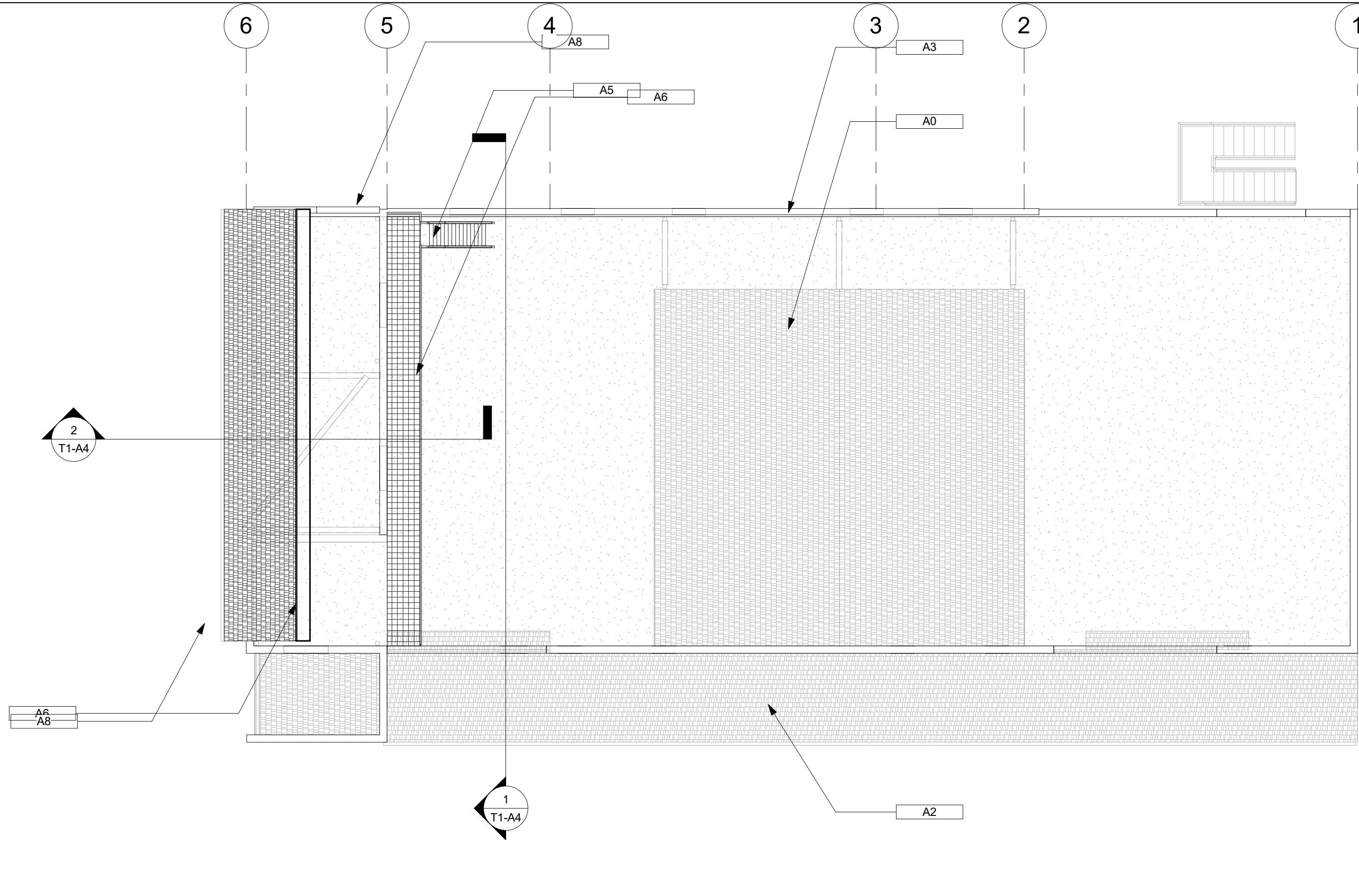
TASK 3: STRIP MALL MODIFICATION GENERAL NOTES



ROOF LEVEL ISOMETRIC FLOOR PLAN

3/32" = 1'-0"

2



ROOF LEVEL MODIFICATION PLAN

3/32" = 1'-0"

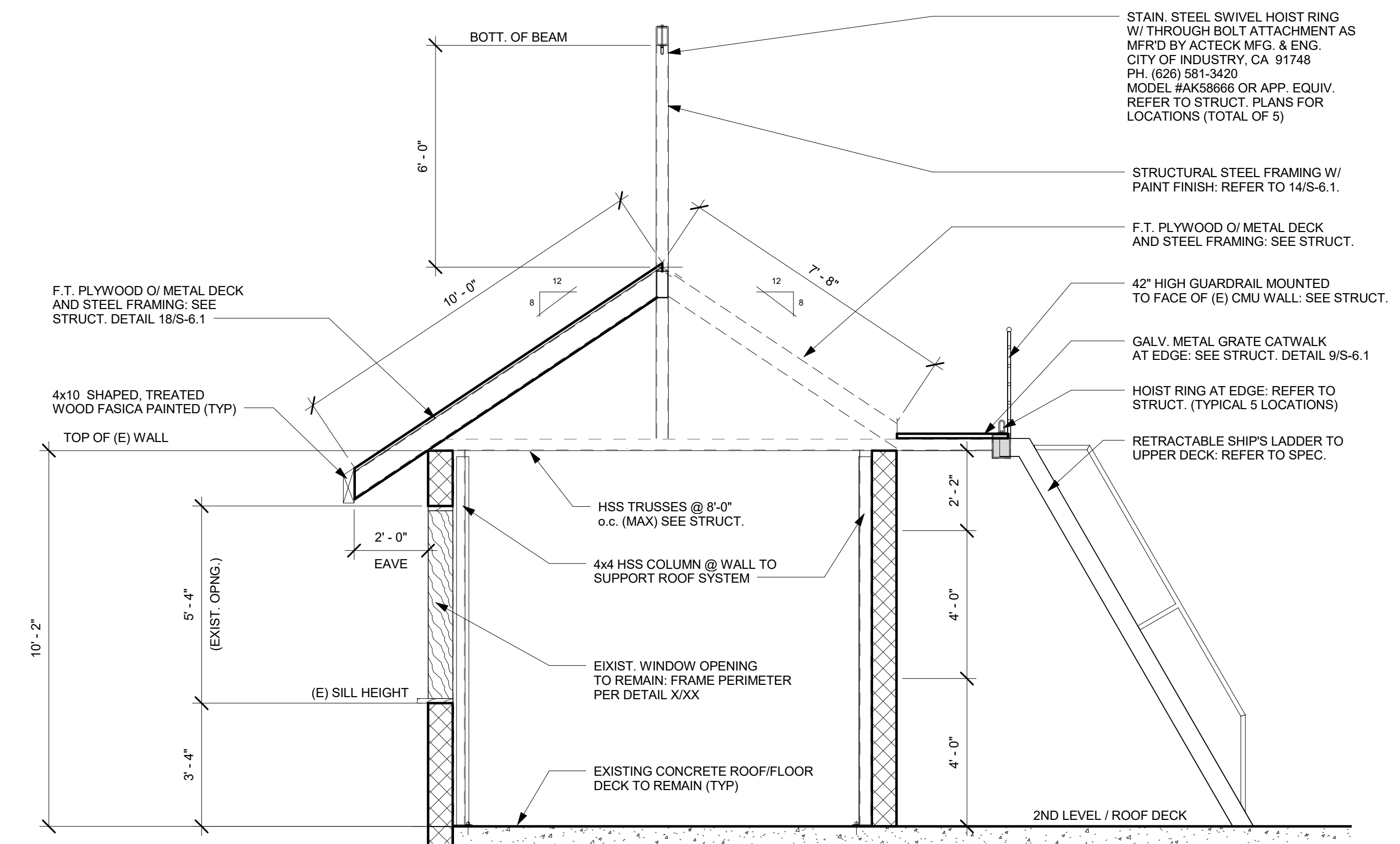
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Key Value	Keynote Text
A0	EXISTING CONSTRUCTION: PROTECT IN PLACE
A2	NEW MANSARD ROOF SYSTEM OVER (E) SLOPING ROOF: REFER TO DETAILS
A3	NEW FRAMED WALL SYSTEM ATOP (E) CMU WALL: REFER TO DETAILS
A5	NEW RETRACTABLE SHIP LADDER AT WALL: REFER TO DETAIL REFERENCE
A6	NEW CONCRETE ROOF DECK SYSTEM & FRAMING: REFER TO STRUCTURAL
A8	NEW ROOF MANSARD: REFER TO DETAILS & STRUCTURAL

KEYNOTES

- CONTRACTOR SHALL VISIT THE EXISTING SITE AND REVIEW ALL EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING.
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TASK 3: STRIP MALL MODIFICATION GENERAL NOTES



NOTE: FOR ADDITIONAL INFORMATION REFER TO STRUCTURAL DETAIL 5 & 6/S-6.1

DETAIL NOT USED

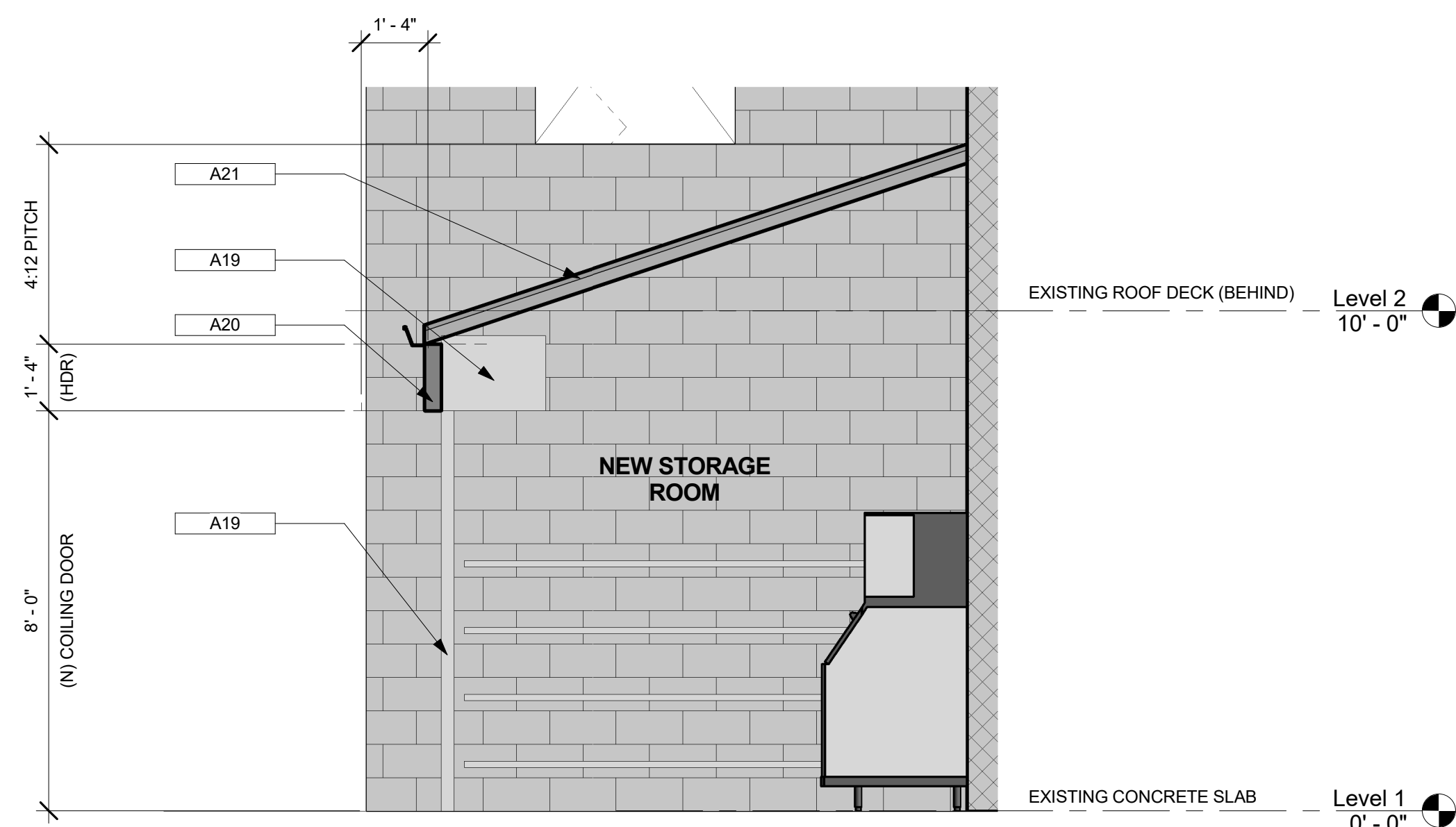
$$1/8'' = 1'-0''$$

4

SECTION AT (N) ROOF

$$3/8'' = 1'-0''$$

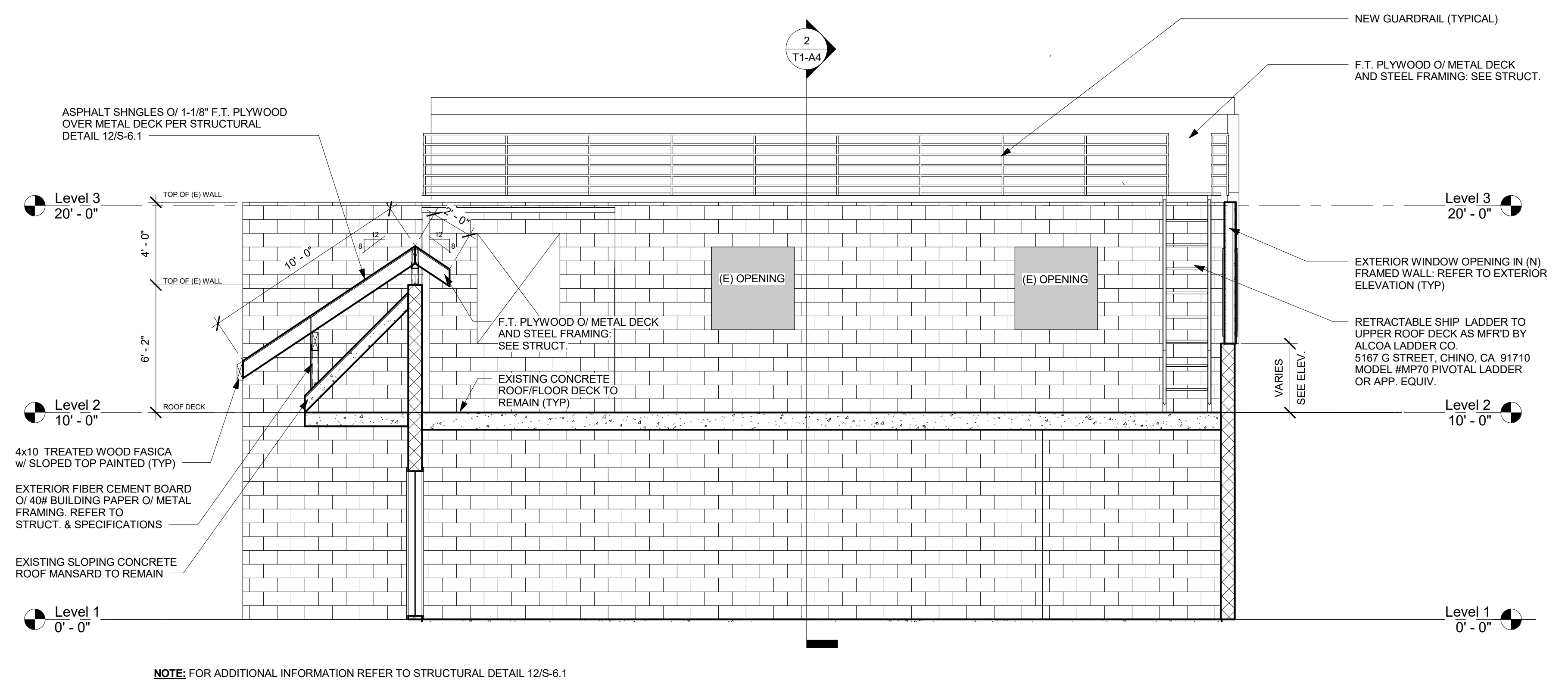
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SECTION AT (N) STORAGE ROOM

$$3/8'' = 1'-0''$$

3



NOTE: FOR ADDITIONAL INFORMATION REFER TO STRUCTURAL DETAIL 12/S-6.1

STRIP MALL BUILDING CROSS SECTION

$$1/4" = 1'-0"$$

1

Key Value	Keynote Text
A19	NEW OVERHEAD COILING DOOR UNIT: REFER TO DETAILS 1-5/TD-4
A20	NEW STRUCTURAL FRAMING, PAINT FINISH: REFER TO STRUCTURAL PLANS
A21	NEW SLOPED ROOF SECTION: REFER TO DETAILS AND STRUCTURAL

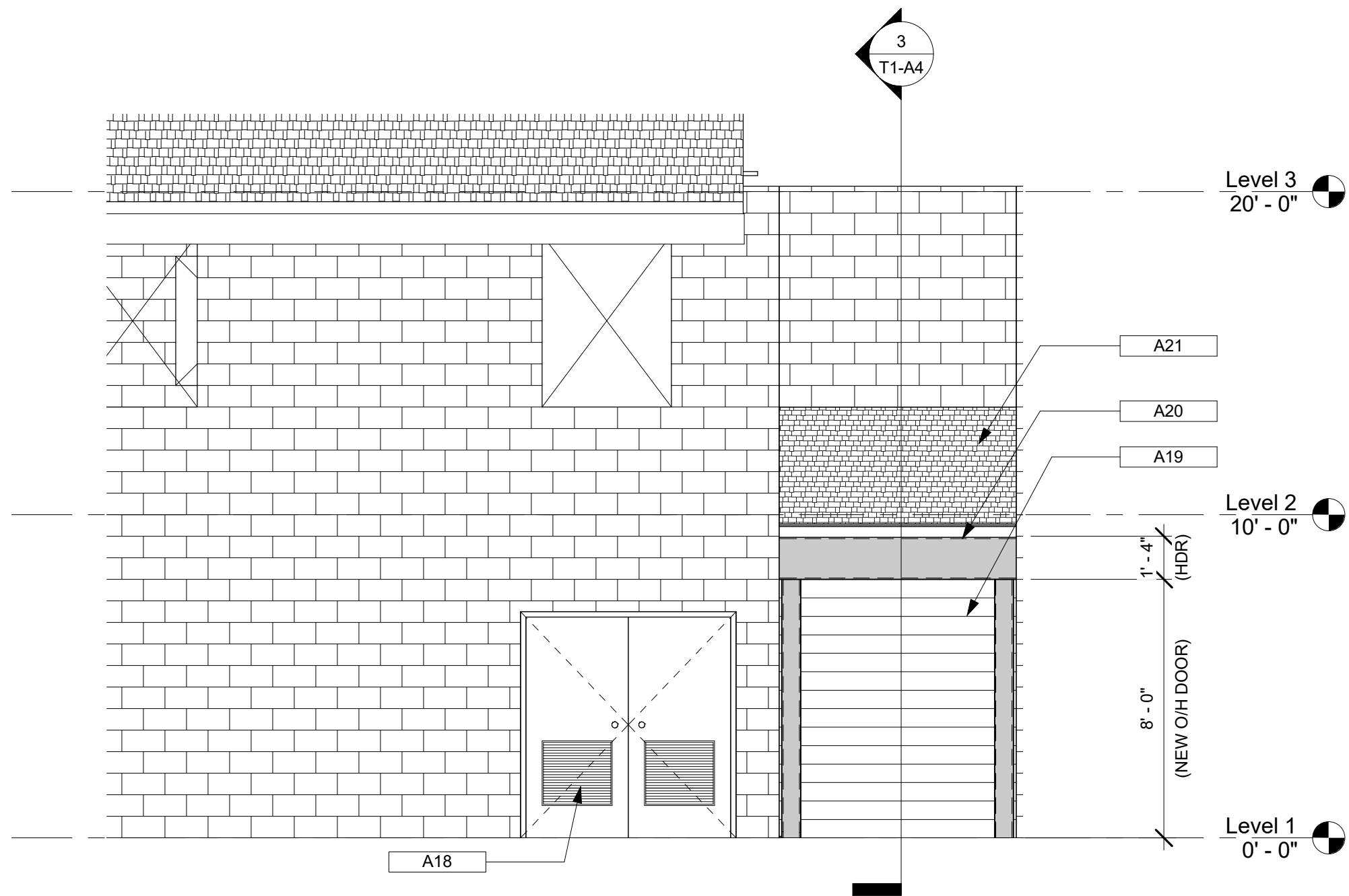
- | | | | |
|----|---|----|---|
| 1. | CONTRACTOR SHALL VISIT THE EXISTING SITE AND REVIEW ALL EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING. | 6. | CONTRACTOR SHALL REVIEW STRUCTURAL DRAWINGS AND DETAILS IN CONJUNCTION WITH THE ARCHITECTURAL PLANS FOR ADDITIONAL SCOPE OF WORK REQUIREMENTS. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND/OR STRUCTURAL ENGINEER OF ANY DISCREPANCIES. |
| 2. | DIMENSIONS SHOWN ARE FROM EXISTING ELEMENTS ON SITE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR ACCURACY. NEW CONSTRUCTION AND INSTALLATION MAY VARY IN ACTUAL LOCATIONS BASED ON EXISTING FIELD CONDITIONS. | 7. | ALL ROOF FLYWOOD SHALL BE FIRE TREATED PLYWOOD, CLASS 1, TYPE A WITH A FLAME SPREAD RATING LESS THAN 25, AMPA UICFA (C-20) STANDARDS, UL LISTED AS MANUFACTURED BY ROYAL PLYWOOD CO. 14171 E. PARK PLACE, CERRITOS, CA 90703 (562) 404-2989 OR APPROVED EQ. |
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DETAIL NOT USED

1/8" = 1'-0"

4



STRIP MALL EXTERIOR ELEVATION AT NEW STORAGE ROOM

1/4" = 1'-0"

2

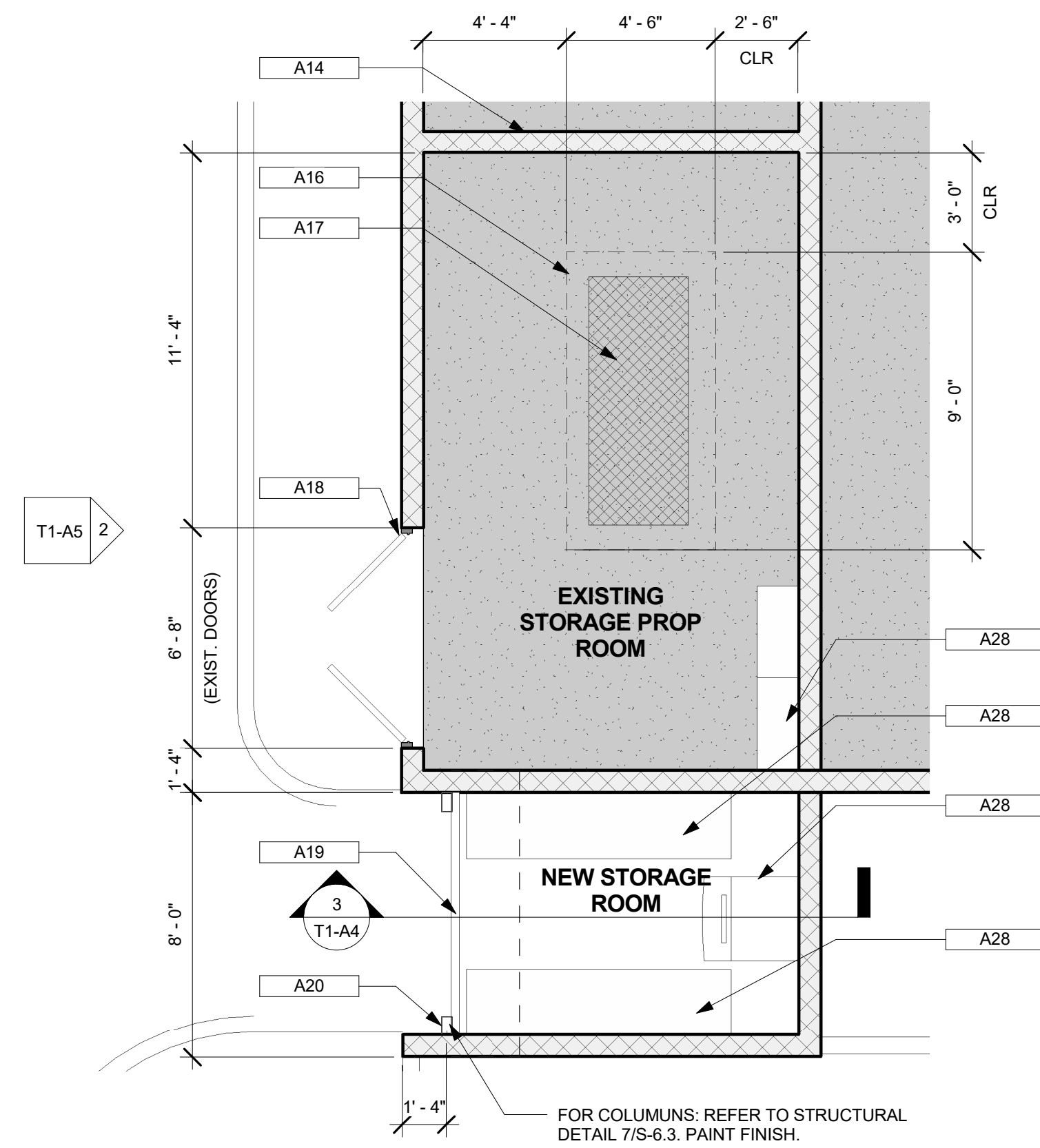
Key Value	Keynote Text
A14	EXISTING INTERIOR CMU WALL TO REMAIN: PROTECT IN PLACE
A16	SAWCUT AND REMOVE (E) CONCRETE SLAB: REFER TO DETAIL 1/TD-2
A17	SCBA BOTTLE FILL UNIT: OWNER FURNISHED, CONTRACTOR TO INSTALL
A18	EXISTING H.M. DOORS: MODIFY PER DETAIL 6/TD-4
A19	NEW OVERHEAD COILING DOOR UNIT: REFER TO DETAILS 1-5/TD-4
A20	NEW STRUCTURAL FRAMING, PAINT FINISH: REFER TO STRUCTURAL PLANS
A21	NEW SLOPED ROOF SECTION: REFER TO DETAILS AND STRUCTURAL
A28	FURNISHINGS & EQUIPMENT BY OWNER



DETAIL NOT USED

3/8" = 1'-0"

3



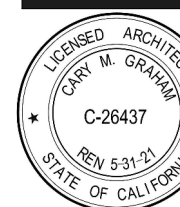
STRIP MALL ENLARGED PLAN @ NEW STORAGE ROOM

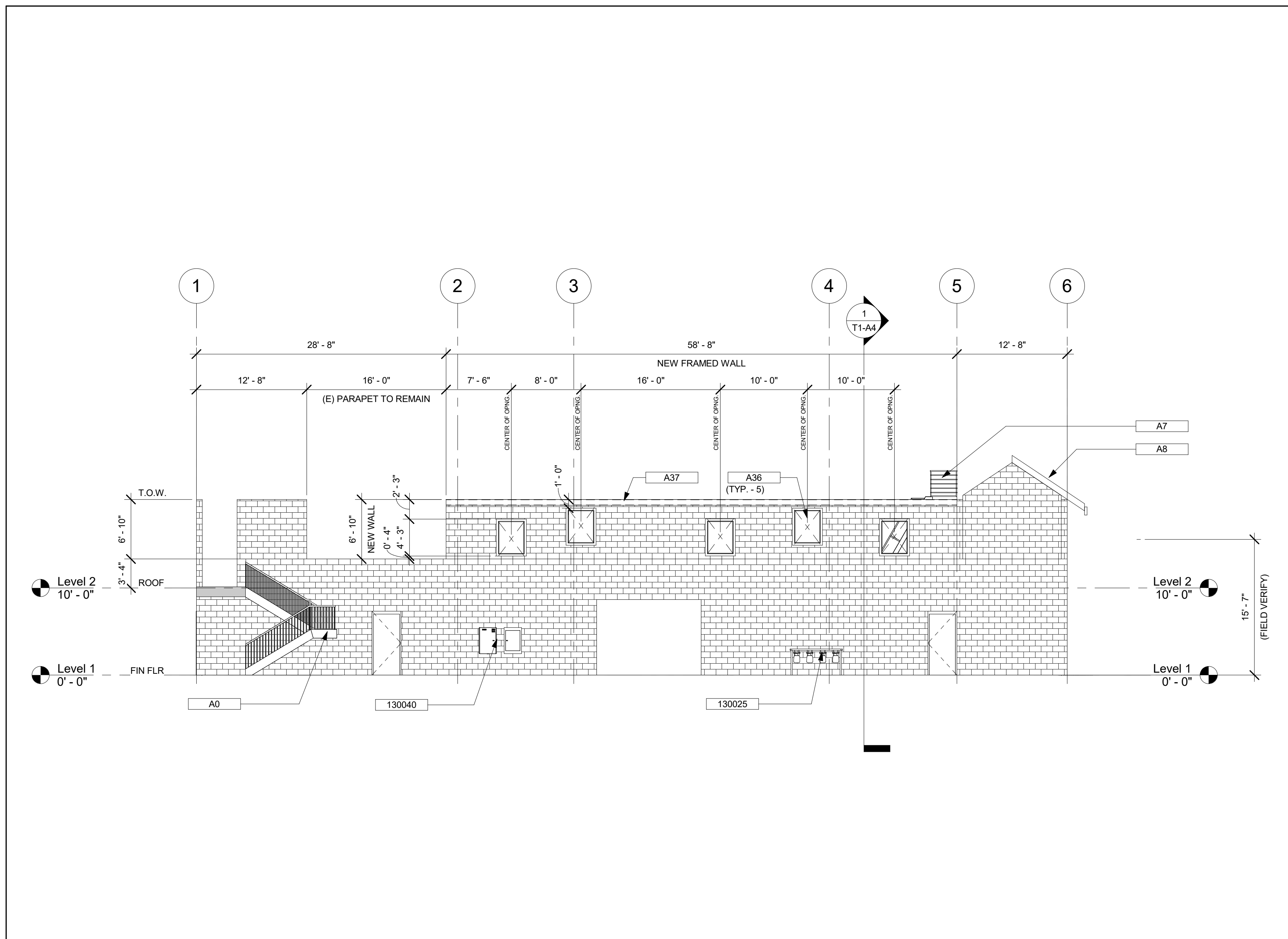
1/4" = 1'-0"

1

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TASK 3: STRIP MALL MODIFICATION GENERAL NOTES

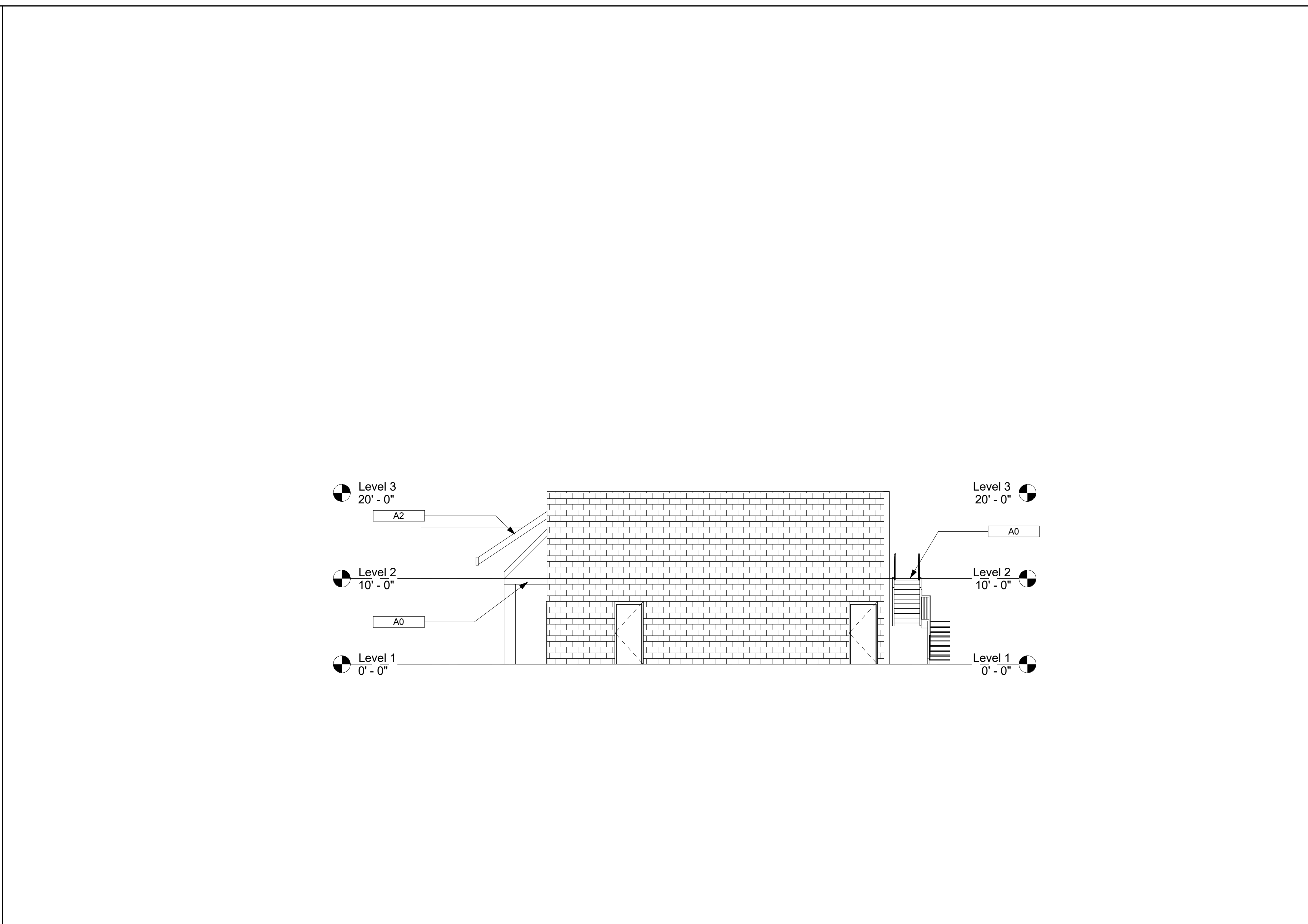




STRIP MALL EAST ELEVATION

1/8" = 1'-0"

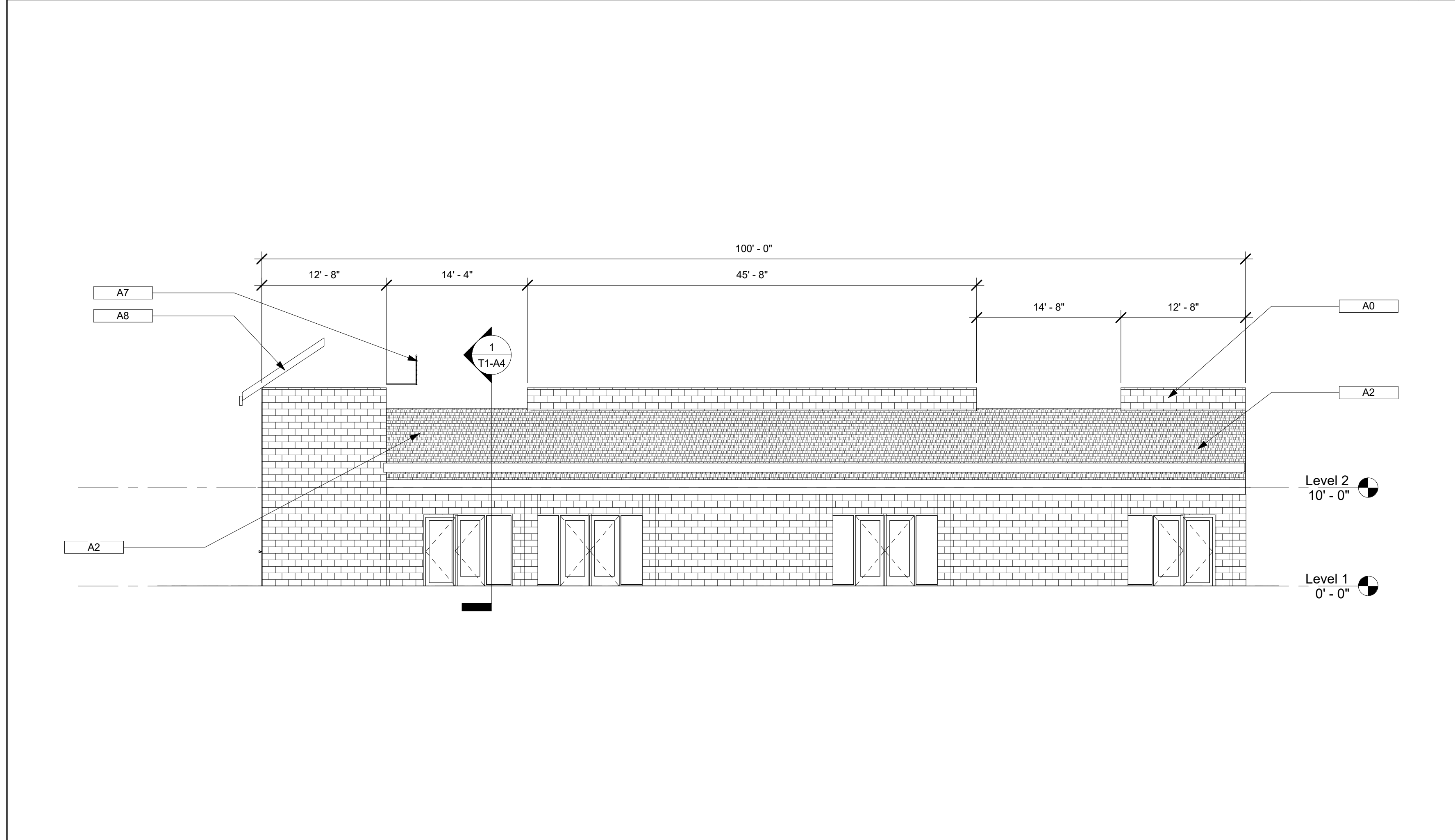
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STRIP MALL SOUTH ELEVATION

1/8" = 1'-0"

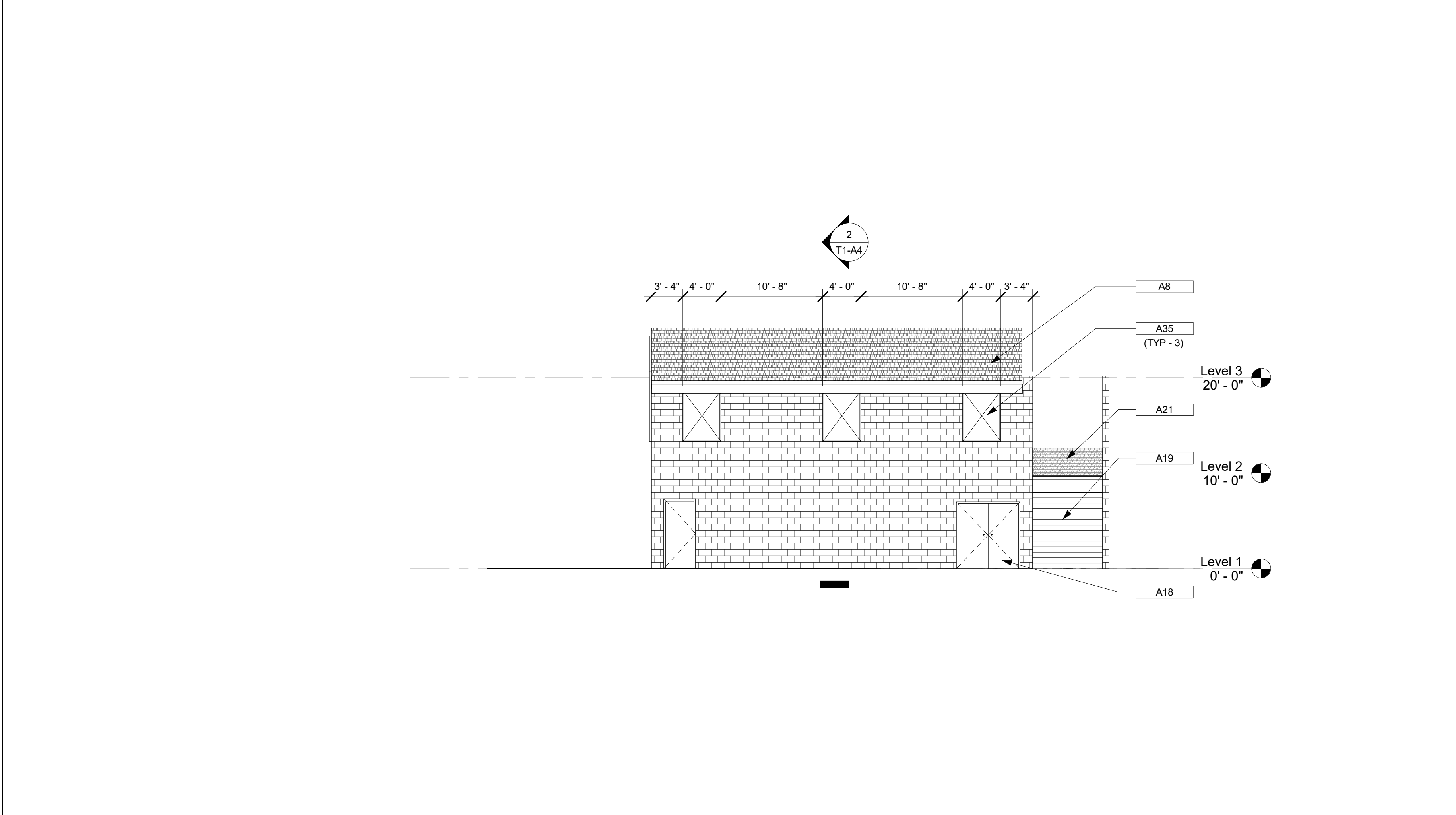
3



STRIP MALL WEST ELEVATION

1/8" = 1'-0"

2



STRIP MALL NORTH ELEVATION

1/8" = 1'-0"

1

Key Value	Keynote Text
130025	(N) WALL EXTERIOR WALL MOUNTED GAS METER MANIFOLD PROP
130040	(N) WALL EXTERIOR WALL MOUNTED SIMULATED ELECTRICAL PANEL PROP
A0	EXISTING CONSTRUCTION: PROTECT IN PLACE
A2	NEW MANSARD ROOF SYSTEM OVER (E) SLOPING ROOF; REFER TO DETAILS
A7	NEW GALVANIZED GUARDRAIL FACE-MOUNTED; REFER TO DETAIL
A8	NEW ROOF MANSARD; REFER TO DETAILS & STRUCTURAL
A18	EXISTING H.M. DOORS: MODIFY PER DETAIL 6/TD-4
A19	NEW OVERHEAD COILING DOOR UNIT; REFER TO DETAILS 1-5/TD-4

Key Value	Keynote Text
A21	NEW SLOPED ROOF SECTION; REFER TO DETAILS AND STRUCTURAL
A35	EXISTING OPENING FRAMED; REFER TO DETAIL 1/TD-5
A36	NEW FRAMED OPENING; REFER TO DETAIL 2/TD-5
A37	EXPOSED STEEL BEAM PER STRUCTURAL, PAINT FINISH

KEYNOTES

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TASK 3: STRIP MALL MODIFICATION GENERAL NOTES




2

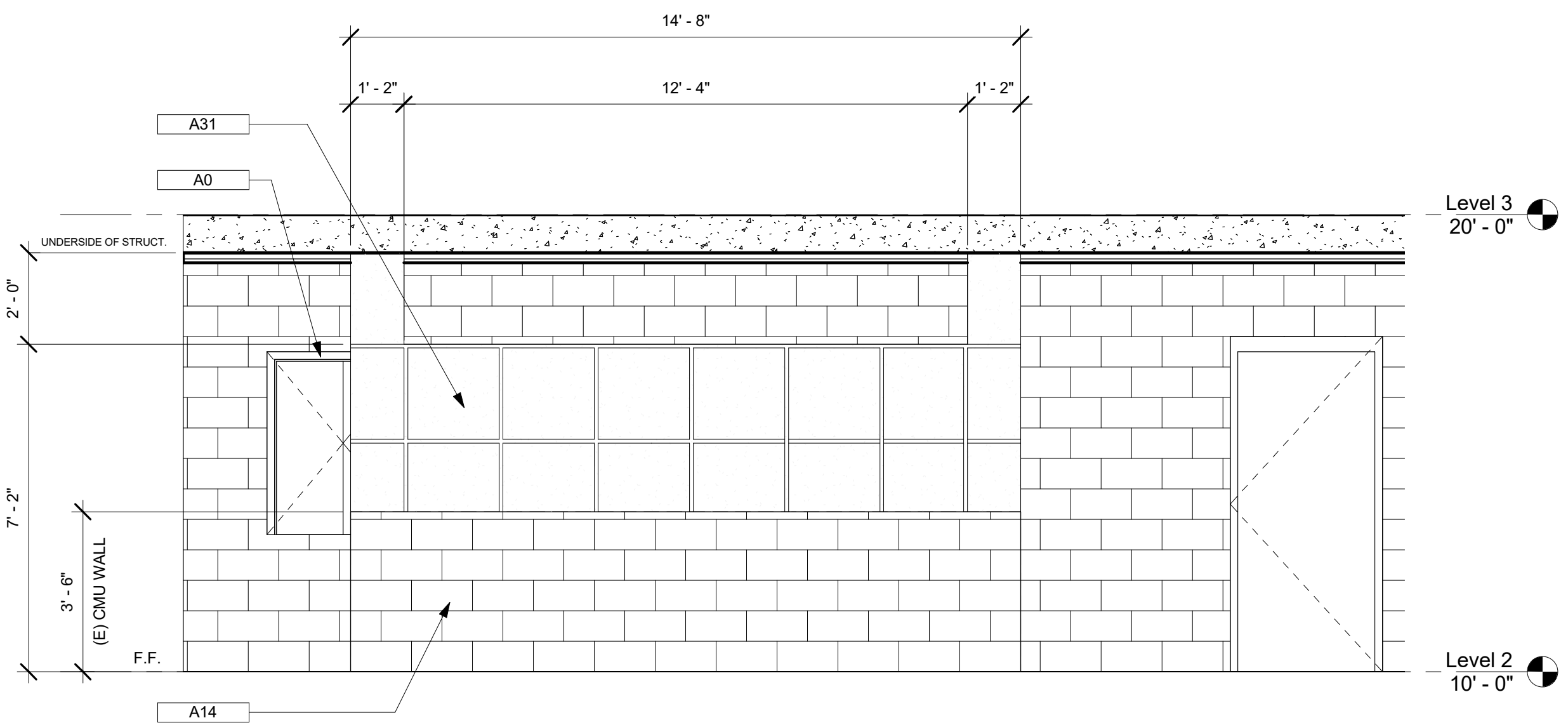
Key Value	Keynote Text
A30	NEW FULL HEIGHT CMU WALL: REFER TO STRUCTURAL
D1	REMOVE (E) HIGH TEMPERATURE WALL LINING AND FRAMING
D2	REMOVE (E) HIGH TEMPERATURE CEILING LINING AND FRAMING
D3	REMOVE (E) SOFA LIVE FIRE PROP AND ASSOCIATED INFRASTRUCTURE
D8	REMOVE (E) LIVE FIRE PROP CABINET AND EQUIPMENT

3

1

- 

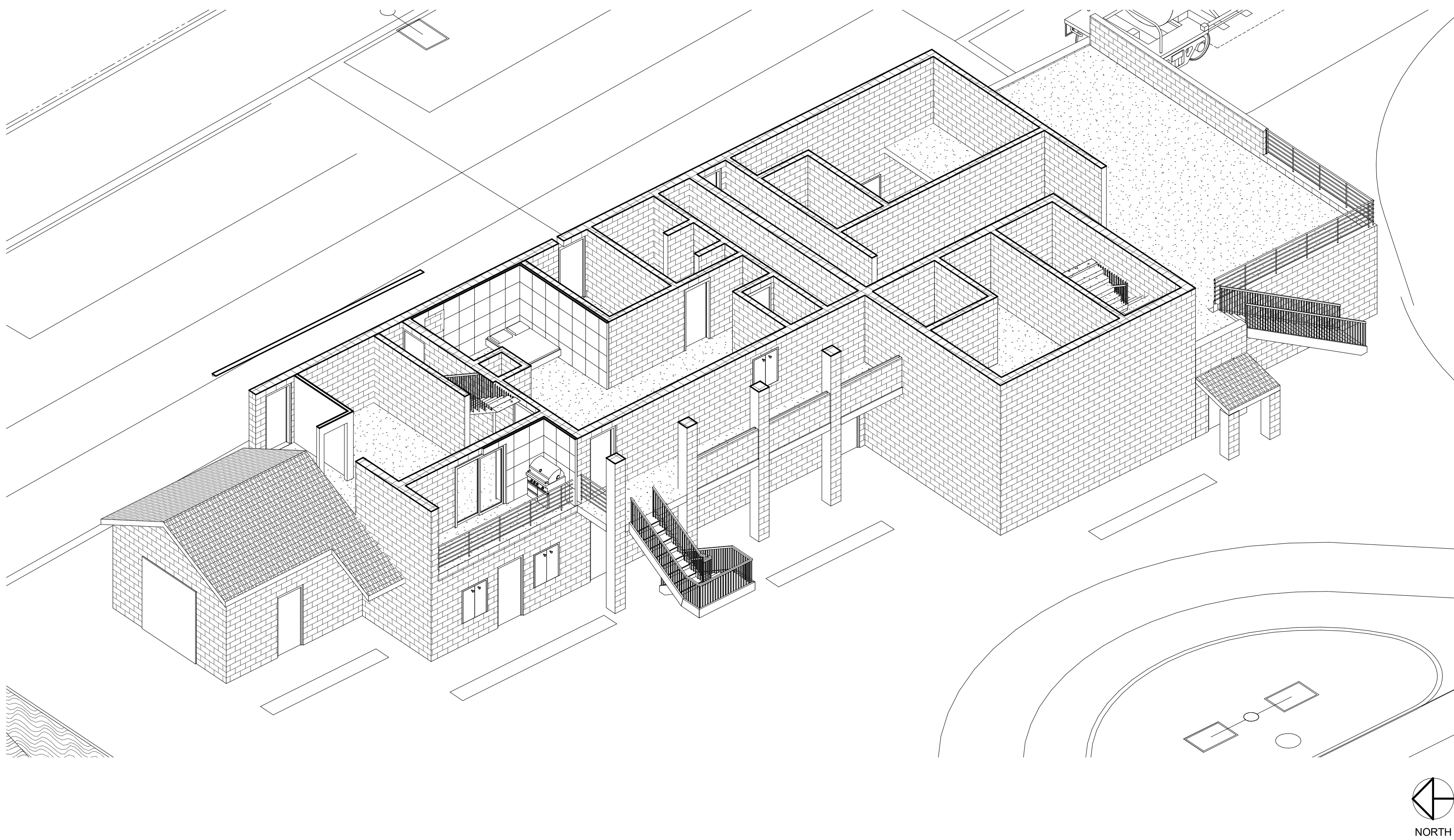
T2-A1



2nd LEVEL INTERIOR ELEVATION @ NEW STAIRWELL WALL

3/8" = 1'-0"

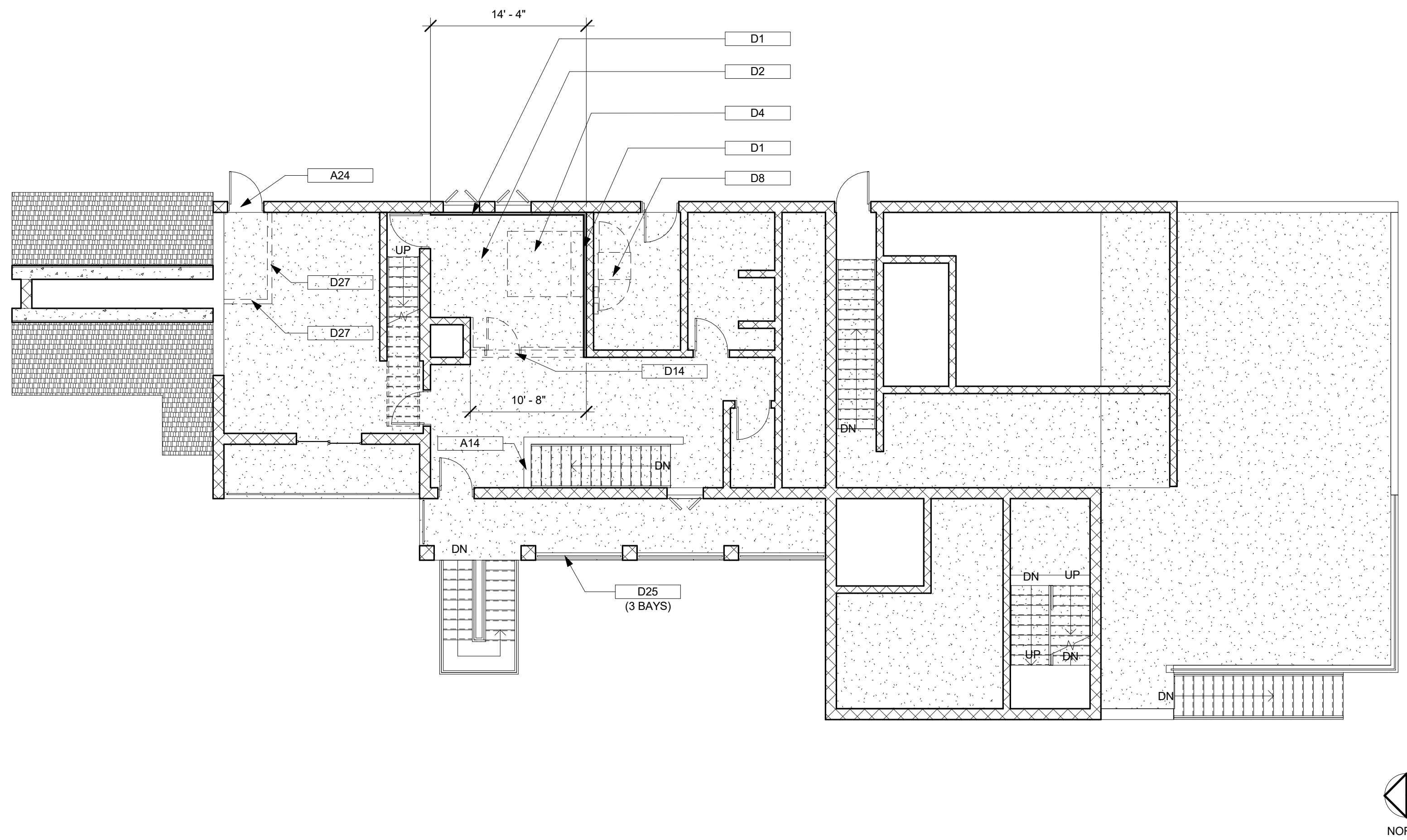
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2nd LEVEL ISOMETRIC FLOOR PLAN

3/32" = 1'-0"

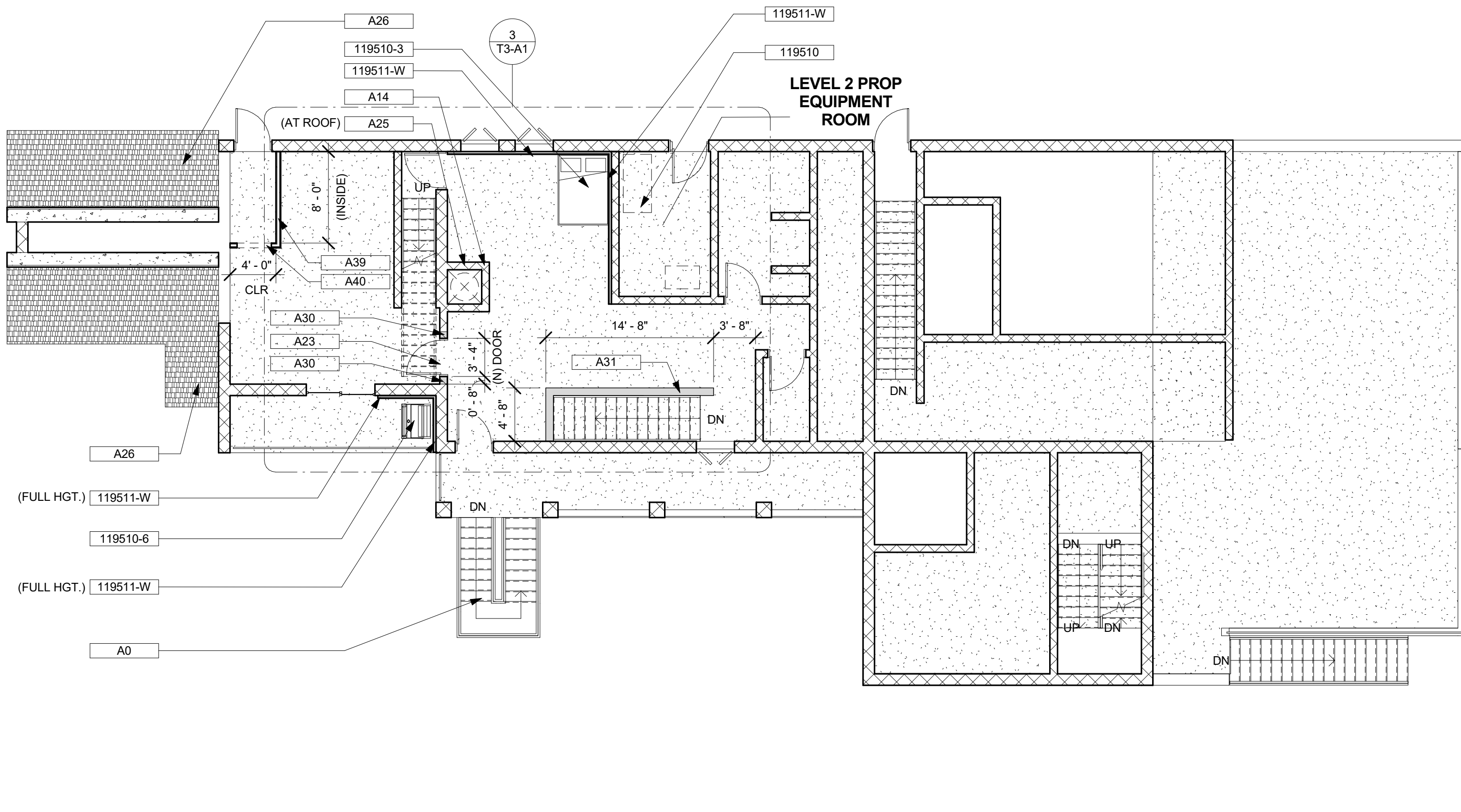
3



2nd LEVEL DEMOLITION PLAN

3/32" = 1'-0"

2



2nd LEVEL MODIFICATION PLAN

3/32" = 1'-0"

1

Key Value	Keynote Text
119510	NEW LIVE FIRE PROP EQUIPMENT, CABINET & INFRASTRUCTURE, REFER TO SPEC.
119510-3	NEW CLASS "B" LIVE FIRE BEDROOM PROP
119510-6	NEW CLASS "B" LIVE FIRE EXTERIOR BALCONY BBQ PROP
119511-W	NEW CLASS "B" HIGH TEMPERATURE WALL LINING SYSTEM
A0	EXISTING CONSTRUCTION: PROTECT IN PLACE
A14	EXISTING INTERIOR CMU WALL TO REMAIN: PROTECT IN PLACE
A23	NEW BREACH DOOR: REFER TO DETAIL 7/TD-4
A24	EXISTING HOLLOW METAL DOOR: PROTECT IN PLACE
A25	EXISTING LIVE FIRE PROP EMERGENCY FAN: REFER TO SPECIFICATIONS
A26	EXISTING SLOPING SHINGLE ROOF TO REMAIN: PROTECT IN PLACE
A30	NEW FULL HEIGHT CMU WALL: REFER TO STRUCTURAL
A31	NEW STUD WALL @ STAIRWELL: REFER TO DETAIL 9/TD-2 AND STRUCTURAL

Key Value	Keynote Text
A39	NEW FULL HEIGHT, 4" METAL STUD WALL W/ 3/4" PLYWOOD EA. SIDE
A40	36" x 80" FRAMED DOOR OPENING
D1	REMOVE (E) HIGH TEMPERATURE WALL LINING AND FRAMING
D2	REMOVE (E) HIGH TEMPERATURE CEILING LINING AND FRAMING
D4	REMOVE (E) BEDROOM LIVE FIRE PROP AND ASSOCIATED INFRASTRUCTURE
D8	REMOVE (E) LIVE FIRE PROP CABINET AND EQUIPMENT
D14	REMOVE (E) NON-BEARING CMU WALL AND DOOR: REFER TO DETAIL
D25	REMOVE (E) METAL GUARDRAIL AT BALCONY EDGE
D27	REMOVE (E) STUD WALL AND DOOR SYSTEM

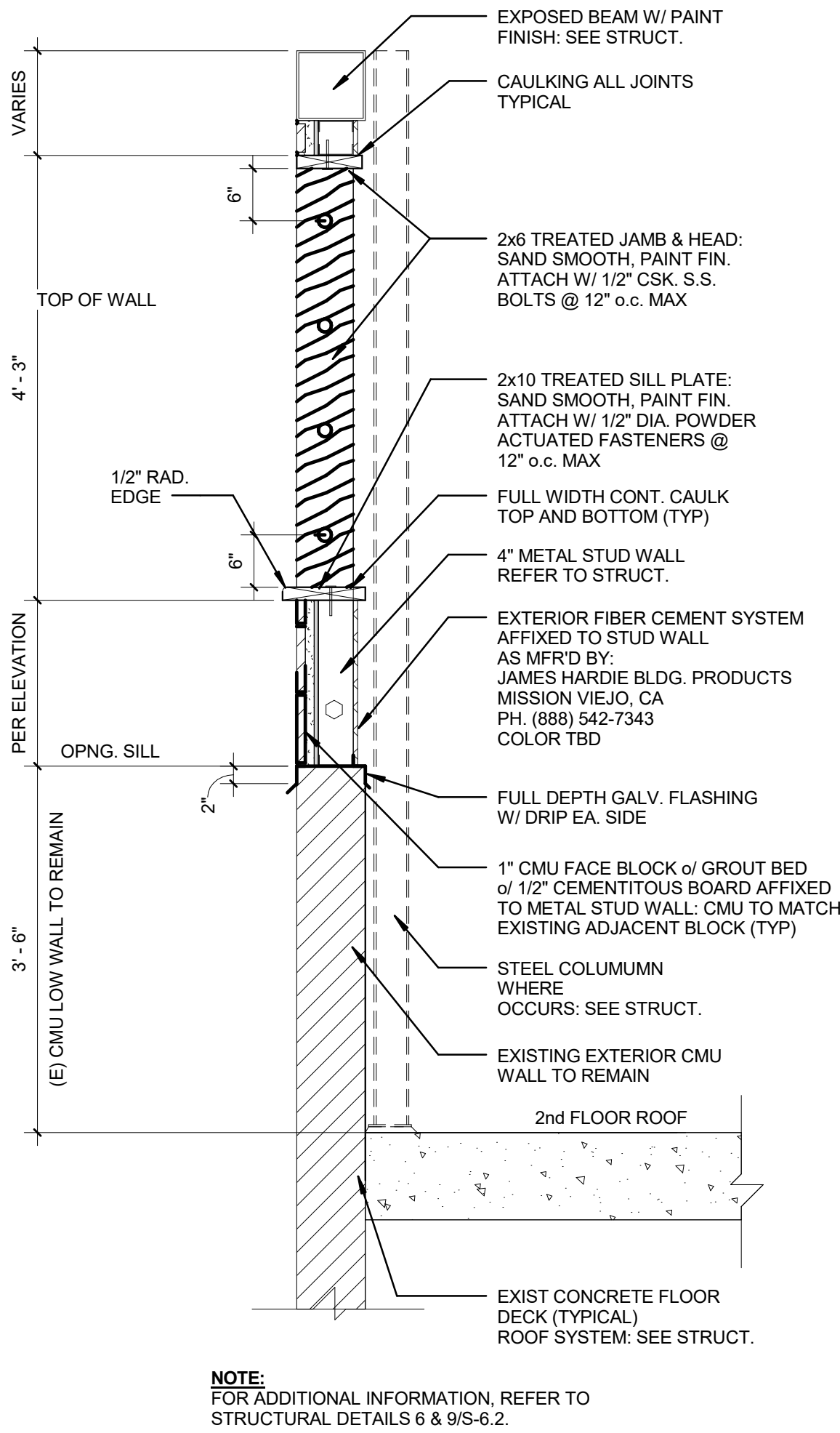
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- CONTRACTOR SHALL REVIEW ALL ASSOCIATED DISCIPLINE DRAWINGS, SUCH AS CIVIL, ELECTRICAL AND STRUCTURAL PRIOR TO BEGINNING OF WORK FOR COORDINATION, INCLUDING BUT NOT LIMITED TO EXISTING 'AS-BUILT' DOCUMENTS/
- PROP VENDOR SHALL PREPARE COMPREHENSIVE SHOP DRAWINGS DEPICTING ALL PROPOSED NEW AND EXISTING CONDITIONS AND EQUIPMENT, INCLUDING MECHANICAL, ELECTRICAL AND INFRASTRUCTURE MODIFICATIONS AND/OR CHANGES.
- CONTRACTOR SHALL BE AWARE THAT THE FACILITY WILL REMAIN IN USE DURING PLANNED CONSTRUCTION. ALL WORK, INCLUDING DELIVERIES, STAGING, EXCAVATION AND SAFETY INCORPORATION SHALL BE COORDINATED WITH ORANGE COUNTY FIRE SITE PERSONNEL PRIOR.
- TRAINING TOWER CONTAINS EXISTING LIVE FIRE PROPS AND ASSOCIATED HIGH TEMPERATURE LINING SYSTEMS ON WALLS AND CEILINGS INSTALLED DURING ORIGINAL CONSTRUCTION. CONTRACTOR MAY REUSE EQUIPMENT, LINING OR INFRASTRUCTURE AS DESIRED. REFER TO CONTRACT SPECIFICATIONS.
- CONTRACTOR SHALL THOROUGHLY REVIEW ACCOMPANYING STRUCTURAL DRAWINGS AND THE WORK DESCRIBED THEREIN AND COORDINATE ACCORDINGLY WITH ARCHITECTURAL DRAWINGS AND PROJECT SPECIFICATIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT DIRECTLY.

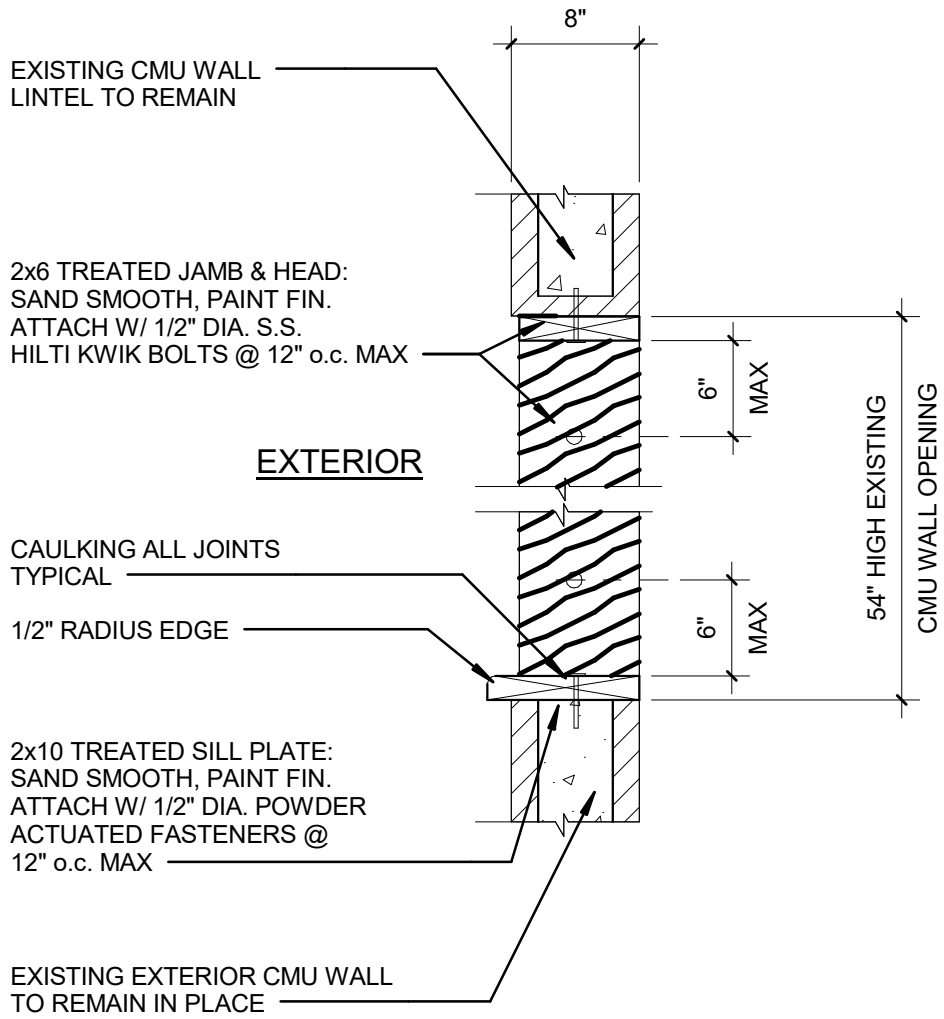
TASK 5: TOWER MODIFICATION GENERAL NOTES

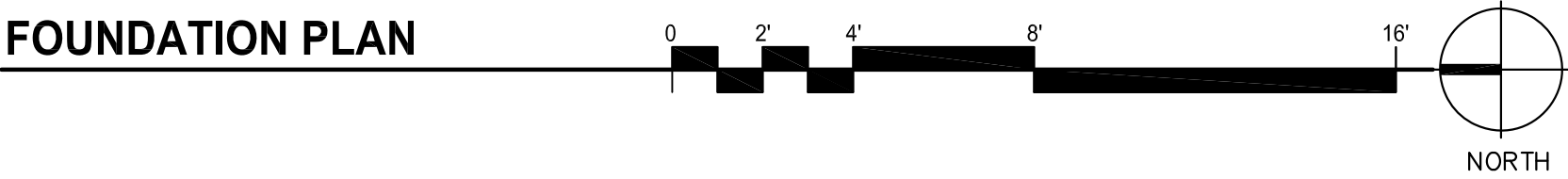
			<p>KEY NOTE: 00.000</p>	
			<p>STUD WALL @ 3rd FLOOR OFFICE PROP</p> <p>3/4" = 1'-0"</p>	11
			<p>KEY NOTE: A31</p>	
			<p>STUD WALL @ 2nd FLOOR STAIRWELL</p> <p>3/4" = 1'-0"</p>	13
			<p>KEY NOTE: A31</p>	9
			<p>KEY NOTE: 00.000</p>	5
			<p>KEY NOTE: 00.000</p>	5
			<p>KEY NOTE: 00.000</p>	4
			<p>KEY NOTE: 00.000</p>	3
			<p>DETAIL NOT USED</p> <p>1" = 1'-0"</p>	2
			<p>KEY NOTE: A16</p>	1


				KEY NOTE: 00.000	8	DETAIL NOT USED 1" = 1'-0"	4	KEY NOTE: 00.000
				KEY NOTE: 00.000	7	DETAIL NOT USED 1" = 1'-0"		KEY NOTE: 00.000
				KEY NOTE: 00.000	6	EXTERIOR FRAMED WINDOW OPENING 1" = 1'-0"	2	KEY NOTE: A38
				KEY NOTE: 00.000	5	WINDOW FRAMING @ EXISTING OPENING 1" = 1'-0"	1	KEY NOTE: A16





NOTE:
FOR ADDITIONAL INFORMATION, REFER TO
STRUCTURAL DETAILS 6 & 9/IS-6.2.





1.  INDICATES NEW 8" CMU SOLID GROUT NON-STRUCTURAL WALL WITH #5 @ 16" O.C., EACH WAY PER DETAIL "6/S7.2".

2.  INDICATES NEW METAL STUD WALL PER TYPICAL DETAILS ON SHEET "S7.1".

3.  INDICATES EXISTING CMU WALLS.

4. VERIFY ALL DIMENSIONS WITH EXISTING CONDITIONS AND ARCH PLANS.

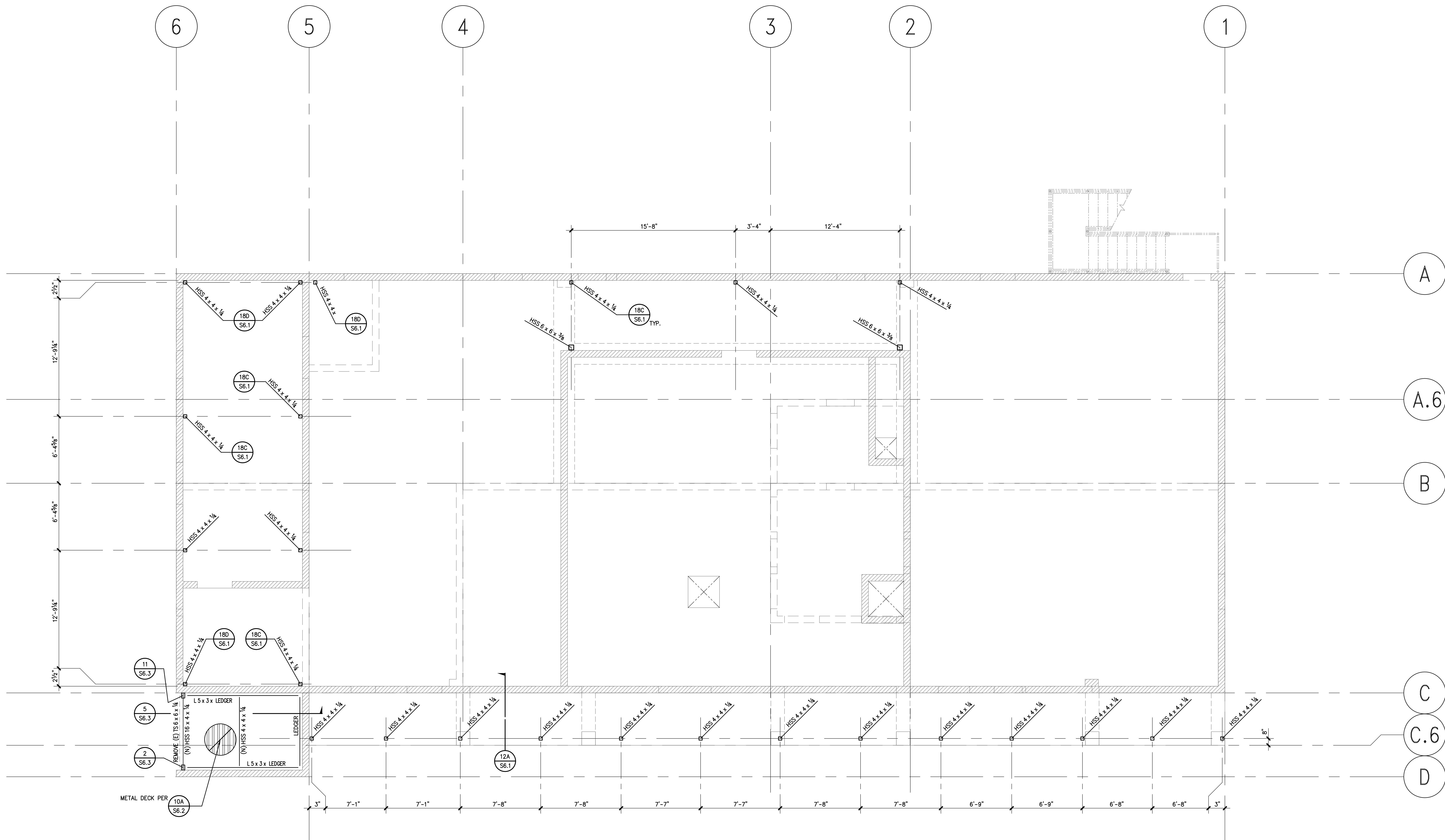


OCFA REGIONAL FIRE OPERATIONS TRAINING GROUNDS MODIFICATIONS

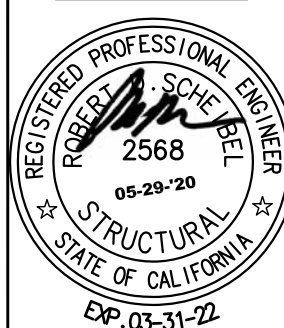
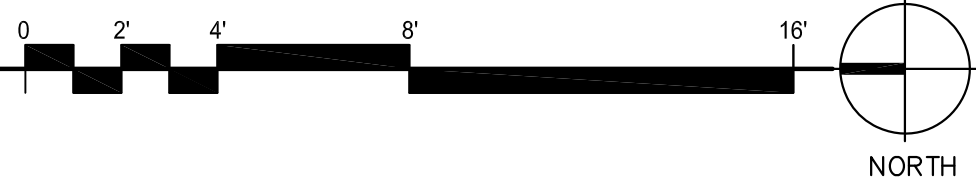
May 29, 2020

SE-2.1

NOTES:
1. SEE NOTES ON SHEET "SE-2.1".



SECOND FLOOR PLAN



RSSE
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STRUCTURAL ENGINEERS
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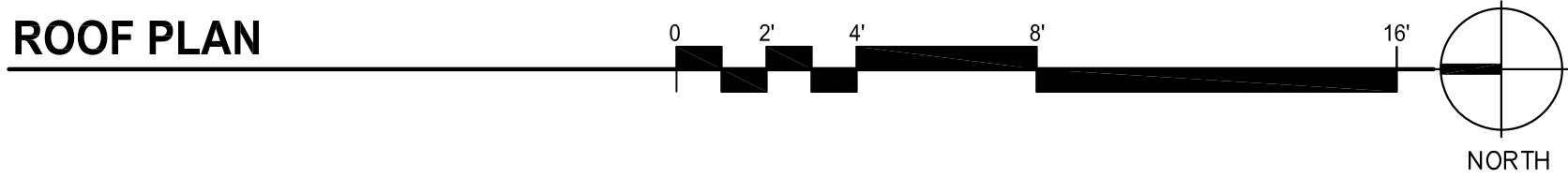
**ORANGE COUNTY
FIRE AUTHORITY**



**OCFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS**

STRIP MALL SECOND FLOOR PLAN
May 20, 2020
SCALE: 1/4" = 1'-0"

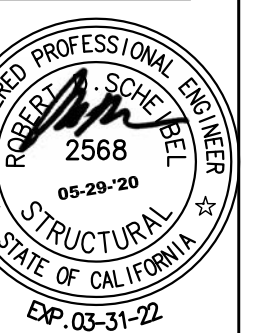
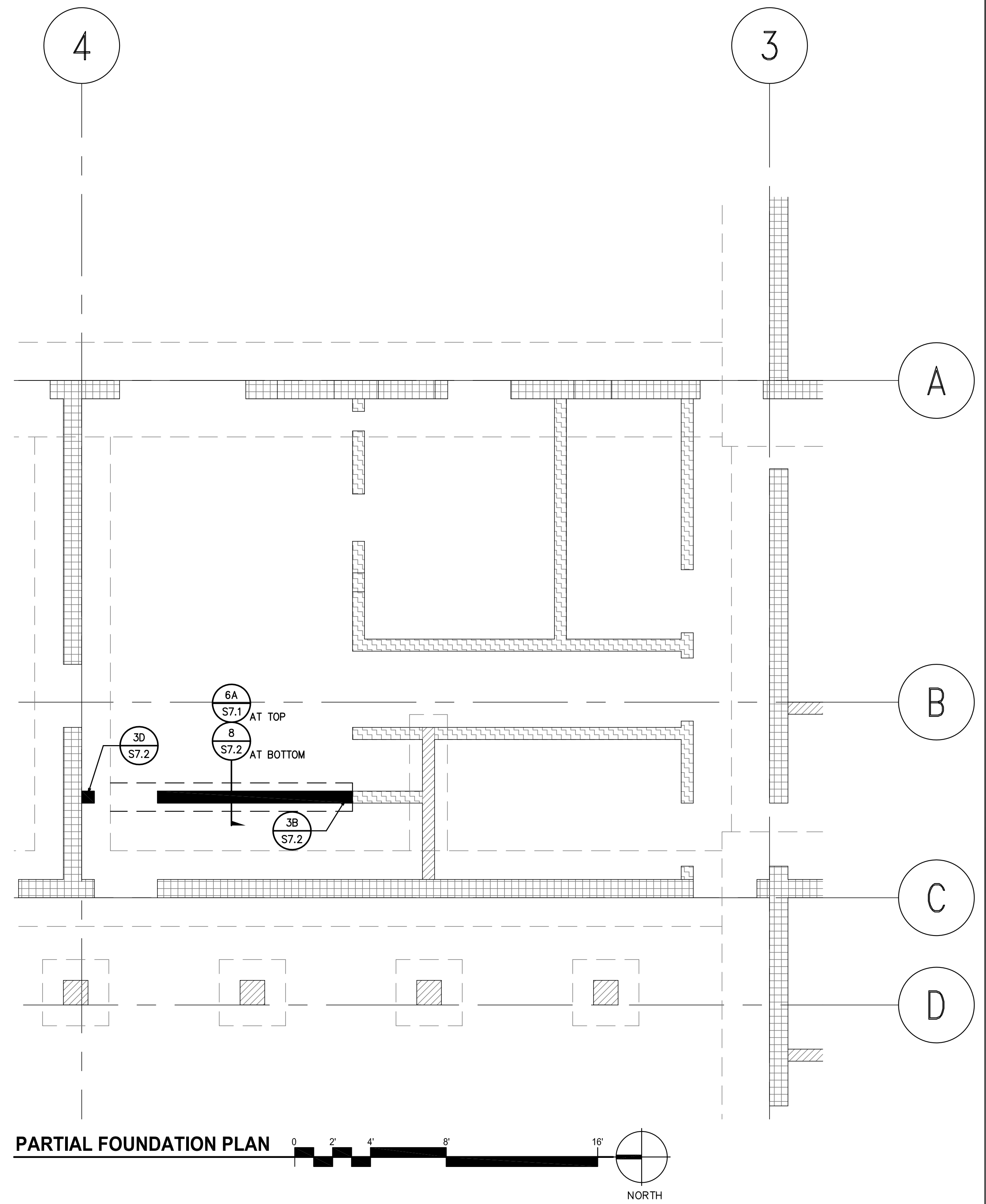
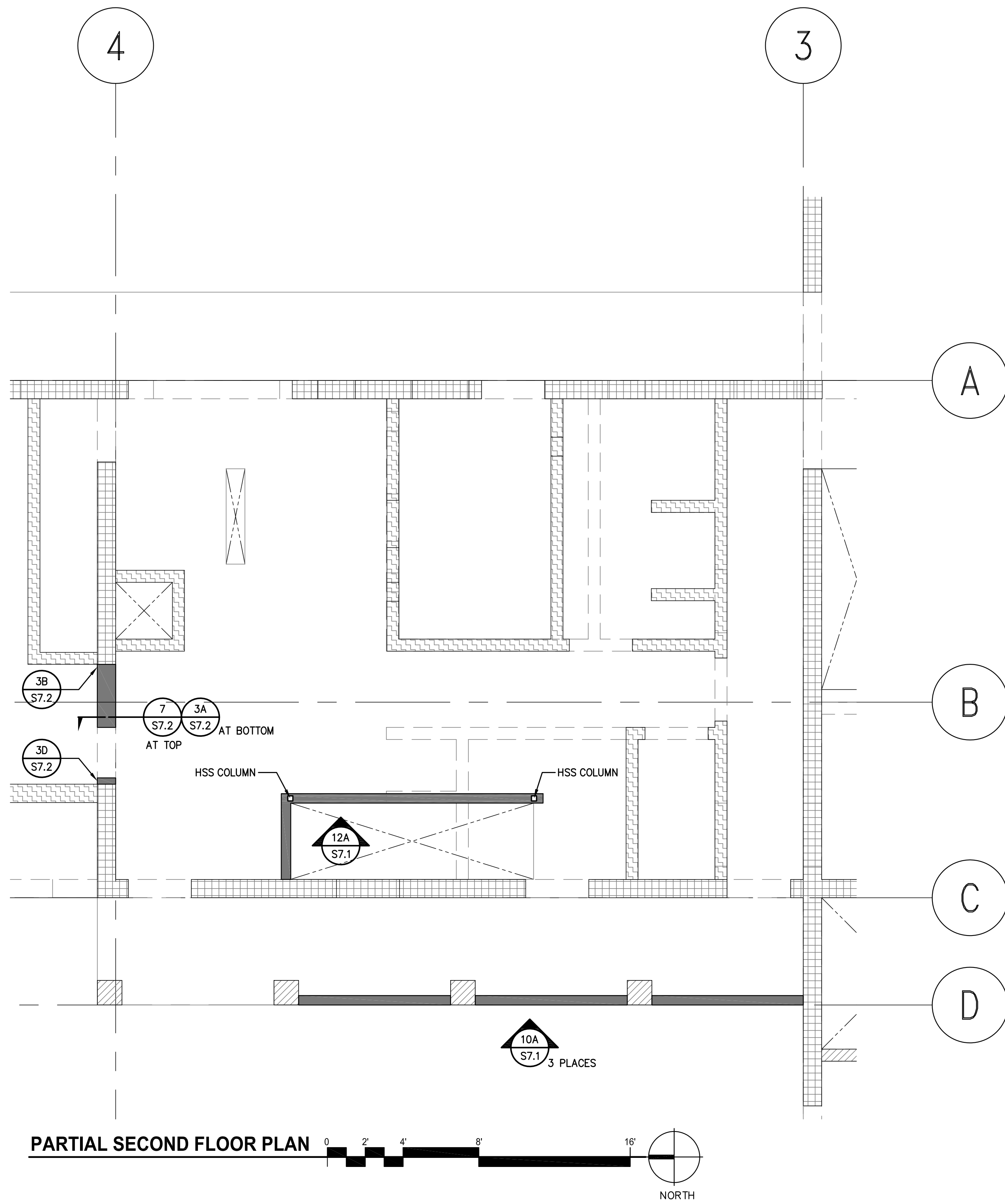
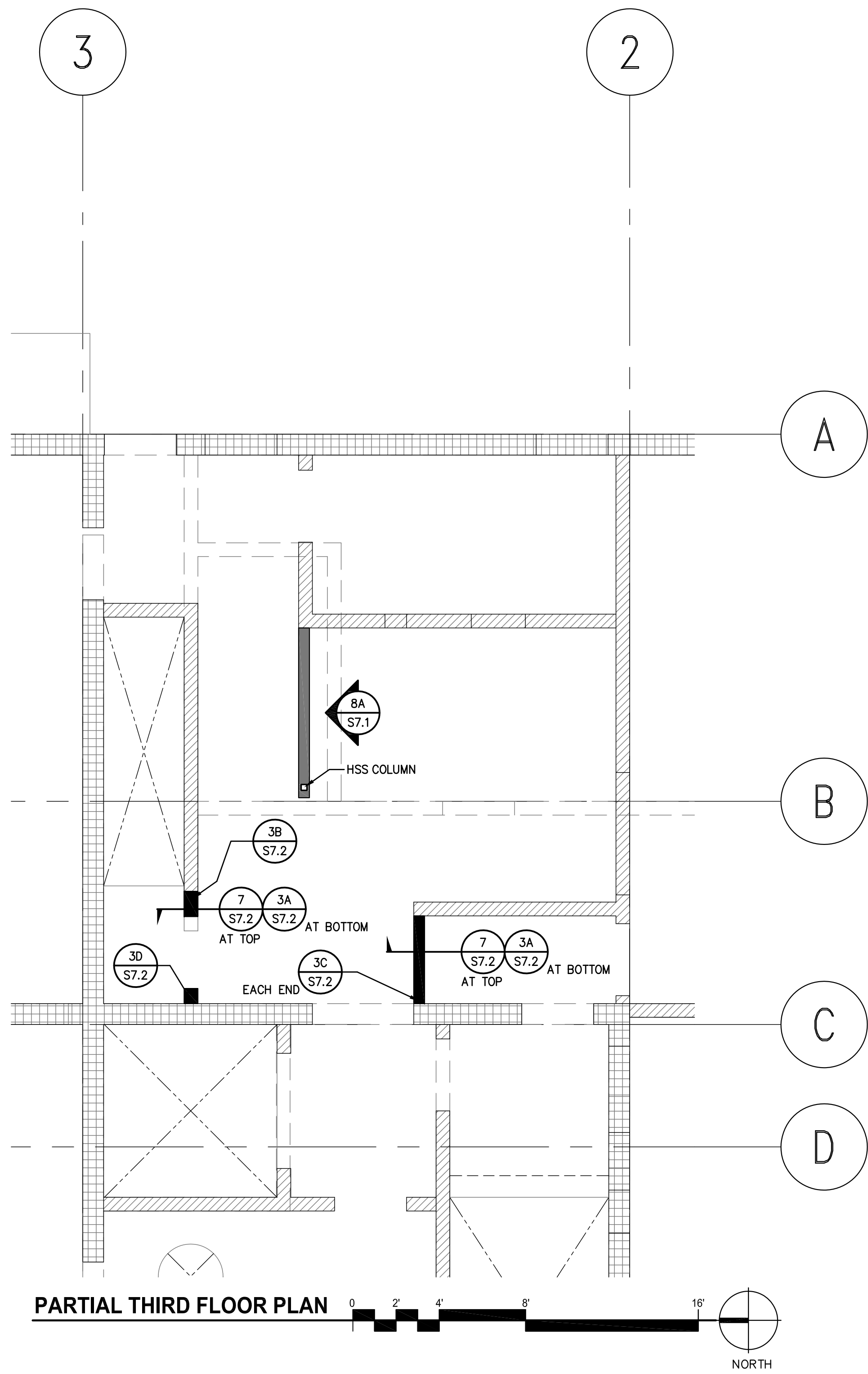
SHEET NO.
SE-2.2



ROOF PLAN

SE-2.

- NOTES:
- INDICATES NEW 8" CMU 'SOLID GROUT NON-STRUCTURAL WALL WITH #5 @ 16" O.C., EACH WAY PER DETAIL "6/S7.2".
 - INDICATES NEW METAL STUD WALL PER TYPICAL DETAILS ON SHEET "S7.1".
 - AND INDICATES EXISTING CMU WALLS.
 - INDICATES EXISTING 8" NON-BEARING CMU WALLS.
 - VERIFY ALL DIMENSIONS WITH EXISTING CONDITIONS AND ARCH PLANS.



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ORANGE COUNTY
FIRE AUTHORITY



OCFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

TOWER PARTIAL FLOOR PLANS
SCALE: 1/4" = 1'-0"
May 20, 2020

SHEET NO.

SF-2.1

VII. ABBREVIATIONS

#	DIAMETER
Δ	AND
⊗	AT
A.B.	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ACSS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AS	AMERICAN IRON AND STEEL INSTITUTE
ARCH.	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWS	AMERICAN WELDING SOCIETY
B.D.G.	BUILDING
B.M.	BEAM
BOT. OR (B)	BOTTOM
CL	CENTER LINE
C.B.	COLUMN BASE
C.G.	CENTER OF GRAVITY
C.J.	CONSTRUCTION JOINT
C.J.P.	COMPLETE JOINT PENETRATION
C.M.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
COL.	COLUMN
CONN.	CONNECTION
CONT.	CONTINUOUS
CTR.	CENTER
CTSK	COUNTERSUNK
DET.	DETAIL
DRAWING	DRAWING
(E)	EXISTING
EA.	EACH
E.F.	EACH FACE
EL. / ELEV.	ELEVATION
E.W.	EACH WAY
EXT.	EXTERIOR
FDN.	FOUNDATION
FIN.	FINISH
F.L.R.	FLOOR
F.O.C.	FACE OF CONCRETE
F.S.	FAR SIDE
FTG.	FOOTING
GAUGE	GAUGE
GALV.	GALVANIZED
GLB	GLUE LAM BEAM
HORIZ.	HORIZONTAL
HDO	HOT DIPPED GALVANIZED
H.P.	HIGH POINT
H.SB	HIGH STRENGTH BOLT
HT.	HEIGHT
I.C.C.	INTERNATIONAL CODE
COUNCIL	COUNCIL
INT.	INTERIOR
JT.	JOINT
KM.	KILOMETER
LONG	LONG
L.H.	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT. WT.	LIGHT WEIGHT
LT.	MACHINE BOLT
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
METAL	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
NOS	NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION
(N)	NOT IN CONTRACT
N.I.C.	NOMINAL
N.S.	NEAR SIDE
N.T.	NOT TO SCALE
O.C.	ON CENTER
OPG.	OPENING
OPP.	OPPOSITE
P.	POWER ACTUATED FASTENER
A.F.	PLATE
P.J.P.	PARTIAL JOINT PENETRATION
PT	POST-TENSIONED
PT.	POINT
REF.	REFERENCE
REINF.	REINFORCEMENT
REQ.	REQUIRED
S.A.D.	SEE ARCHITECTURAL DRAWINGS
S.C.D.	SEE CIVIL DRAWINGS
S.E.D.	SEE ELECTRICAL DRAWINGS
S.M.D.	SEE MECHANICAL DRAWINGS
S.P.D.	SEE PLUMBING DRAWINGS
SC	SLIP-CRITICAL JOINT PER ASTM SPECS
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SIMLAR	SIMILAR
SJ	STEEL JOIST INSTITUTE
SMRF	SPECIAL MOMENT RESISTING FRAME
S.M.S.	SHEET METAL SCREW
SPEC.	SPECIFICATION
SO.	SQUARE
S.S.	STAINLESS STEEL
ST	SNUG-TIGHTENED JOINT PER ASTM
STAGG.	STAGGERED
STND.	STANDARD
STL.	STEEL
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
TOP	TOP
T&B	TOP AND BOTTOM
THD.	THREADED
T.L.	TOP OF LEDGER
T.O.C.	TOP OF CONCRETE
T.O.N.	TOP OF NAILED
T.O.S.	TOP OF STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W/	WITH
W/O	WITHOUT
W.H.S.	WELDED HEADED STUD
W.P.	WORK POINT
WT.	WEIGHT

H. STRUCTURAL WOOD

- ALL WOOD MEMBERS SHALL BE DOUGLAS FIR (DF) OR LARCH GRADE MARKED BY A RECOGNIZED GRADING AGENCY (WCA, WWPA, OR WCLB) AND SHALL HAVE A 19% MAXIMUM MOISTURE CONTENT AT TIME OF PLACEMENT.
- WOOD STRUCTURAL PANELS SHALL BE APA PERFORMANCE RATED PANELS CONFORMING TO LATEST EDITION OF THE U.S. PRODUCT STANDARD DOC P51 (PLYWOOD) OR PS2 (ORIENTED STRAND BOARD), AND SHALL BE GRADE MARKED BY APA.
- WOOD GRADES (UNLESS NOTED OTHERWISE):
 - (A) HORIZONTAL MEMBERS: JOISTS AND RAFTERS. GRADE #1 BEAMS AND STRINGERS. GRADE #1 LEDGERS. GRADE #1
 - (B) VERTICAL MEMBERS: CONSTRUCTION GRADE 2 x 4 STUDS. GRADE #1 2 x 6 STUDS. GRADE #1 POSTS AND TIMBERS. GRADE #1
 - (C) SHEATHING. STRUCTURAL 1
- CUTTING, NOTCHING OR DRILLING OF BEAMS OR JOISTS TO BE PERMITTED ONLY AS DETAILED OR APPROVED BY THE ENGINEER.
- UNLESS OTHERWISE SPECIFIED, ALL NAILING SHALL CONFORM TO THE LATEST EDITION OF THE U.B.C., TABLE 2304.10.1.
- ALL NAILS SHALL BE STANDARD COMMON NAILS, UNLESS NOTED OTHERWISE AND SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED CONFORMING TO ASTM A153.
- DIAPHRAGM AND SHEAR WALL NAILS SHALL BE DRIVEN SO THEIR HEAD IS FLUSH WITH THE SURFACE OF THE SHEATHING.
- ALL BOLTS FOR WOOD CONNECTIONS SHALL BE A307, GRADE A.
- ALL BOLTS OR PLATES RESTING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR. BOLTS SHALL BE PLACED NOT MORE THAN 12" OR LESS THAN 4" FROM THE END OF A BOARD OR FROM A NOTCH AND SPACED AT INTERVALS NOTED. ALL SILL BOLTS SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED.
- ALL BOLT HEADS AND NUTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS. ALL BOLT HOLES IN WOOD SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" DIAMETER LARGER THAN THE BOLT DIAMETER.
- ALL FRAMING HARDWARE SHALL BE AS MANUFACTURED BY "SIMPSON STRONG-TIE COMPANY" OR ENGINEER APPROVED EQUAL. FASTENER HOLES IN FRAMING HARDWARE SHALL BE FILLED WITH THE MANUFACTURER SPECIFIED NUMBER AND TYPE OF FASTENERS TO ACHIEVE THE MAXIMUM MANUFACTURER RATED CAPACITY, U.N.O.
- ALL SCREWS DENOTED AS "SDS" SHALL BE AS MANUFACTURED BY "SIMPSON STRONG-TIE COMPANY" AND SHALL HAVE "DOUBLE BARRIER" CORROSION PROTECTION.
- PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS.
- PROVIDE BLOCKING OR BRIDGING PER LATEST EDITION OF THE C.B.C.
- TOP PLATES OF ALL WOOD STUD WALLS TO BE 2-2X 42 (NAME WIDTH AS STUDS), UNLESS OTHERWISE NOTED, LAP 48" (MINIMUM) WITH NOT LESS THAN 6-16D NAILS AT EACH LAP AND NOT MORE THAN 12" BETWEEN NAILS.
- ADHESIVES USED FOR ANY FIELD GLUING SHALL CONFORM TO APA PERFORMANCE SPECIFICATION AFG-01.
- ALL LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1.
 - THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK.
 - THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 75% OF THE SHANK DIAMETER AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION.
 - THE THREADED PORTION OF THE LAG SCREW SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH, NOT BY DRIVING WITH A HAMMER.
 - SOAP OR OTHER LUBRICANT SHALL BE USED ON THE LAG SCREWS OR IN THE LEAD HOLES TO FACILITATE INSERTION AND PREVENT DAMAGE TO THE LAG SCREW.

I. GLUE LAMINATED WOOD

- MATERIALS, MANUFACTURE, AND QUALITY CONTROL FOR STRUCTURAL GLUED LAMINATED TIMBER SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF AMERICAN NATIONAL STANDARD ANSI/AITC A190.1 "STRUCTURAL GLUED LAMINATED TIMBER" AND AITC 117, "DESIGN AND MANUFACTURING".
- GLU-LAM BEAMS SHALL BE FABRICATED USING EXTERIOR GLUE (WATERPROOF).
- GLU-LAM BEAMS SHALL BE IN ACCORDANCE WITH NOS SUPPLEMENT TABLE 5A AND SHALL HAVE THE FOLLOWING COMBINATION:

SIMPLE SPAN 5/8" & WIDER	24F-V4	DF/DF
SIMPLE SPAN 3/4" & NARROWER	24F-V5	DF/DF
CANTILEVER 5/8" & WIDER	24F-V6	DF/DF
CANTILEVER 3/4" & NARROWER	24F-V10	DF/HF
- GLU-LAMINATED BEAMS SHALL BEAR THE STAMPED IDENTIFICATION MARK OF A QUALIFIED INSPECTION ORGANIZATION. CERTIFICATES OF CONFORMANCE SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
- GLU LAM BEAMS WITH SURFACES EXPOSED TO WEATHER SHALL BE PROTECTED IN AN APPROVED MANNER PER CBC REQUIREMENTS.
- AT THE TIME OF GLUING THE MOISTURE CONTENT OF THE WOOD SHALL NOT EXCEED 10 PERCENT AND SHALL NOT BE LESS THAN 7 PERCENT.

J. POST-INSTALLED ANCHORS

- POST-INSTALLED ANCHORS SHALL BE INSTALLED WITH PERIODIC INSPECTION IN ACCORDANCE WITH C.B.C. SECTION 1705 AND AN APPROVED EVALUATION REPORT.
- EXPANSION BOLTS INSTALLED IN CONCRETE SHALL BE ZINC-COATED CARBON STEEL OR STAINLESS STEEL CONFORMING WITH:
 - HILTI KWIK-BOLT TZ INSTALLED IN ACCORDANCE WITH CURRENT ICC REPORT ESR-1917.
 - SIMPSON STRONG-TIE STRONG-BOLT 2 WEDGE ANCHOR INSTALLED IN ACCORDANCE WITH CURRENT ICC REPORT ESR-3037.
- EXPANSION BOLTS INSTALLED IN CONCRETE MASONRY SHALL BE ZINC-COATED CARBON STEEL OR STAINLESS STEEL CONFORMING WITH:
 - HILTI KWIK-BOLT 3 INSTALLED IN ACCORDANCE WITH CURRENT ICC REPORT ESR-1385.
 - SIMPSON STRONG-TIE STRONG-BOLT 2 WEDGE ANCHOR INSTALLED IN ACCORDANCE WITH CURRENT IAMPO UES ER-240.
- SCREW ANCHORS INSTALLED IN CONCRETE SHALL BE ZINC-COATED CARBON STEEL OR STAINLESS STEEL CONFORMING WITH:
 - SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR INSTALLED IN ACCORDANCE WITH CURRENT ICC REPORT ESR-2713 (CARBON STEEL) OR IAMPO UES ER-493 (STAINLESS STEEL).
- SCREW ANCHORS INSTALLED IN CONCRETE MASONRY SHALL BE ZINC-COATED CARBON STEEL OR STAINLESS STEEL CONFORMING WITH:
 - SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR INSTALLED IN ACCORDANCE WITH CURRENT ICC REPORT ESR-1056.
- POST-INSTALLED ANCHORS SHALL BE LOCATED TO AVOID CUTTING OR DAMAGING REINFORCING STEEL.

K. EPOXY GROUTED DOWEL INSTALLATION

- ALL EPOXY GROUTED DOWELS SHALL BE INSTALLED UNDER SPECIAL INSPECTION IN ACCORDANCE WITH C.B.C. SECTION 1705.
- ALL EPOXY DOWELS SHALL BE INSTALLED WITH "SIMPSON STRONG-TIE SET-XP" ADHESIVE AND SHALL BE INSTALLED IN ACCORDANCE WITH ICC REPORT ESR-2568.
- THREADED RODS SHALL BE FREE OF OIL, SCALE AND RUST. THREADED RODS SHALL BE INSTALLED IN A HOLE PRE-DRILLED WITH A DIAMETER COMPLYING WITH THE ICC REPORT. DRILL BITS USED SHALL COMPLY WITH ANSI B212.15 -1994.
- THE HOLE SHALL BE DRY AND CLEANED WITH OIL-FREE COMPRESSED AIR AND A NYLON BRUSH PRIOR TO EPOXY INSTALLATION.

D. REINFORCING STEEL

- BAR REINFORCEMENT SHALL CONFORM TO:

ASTM A615, GRADE 60	ALL REBAR U.N.O.
ASTM A706, GRADE 60	ALL SPECIAL MOMENT FRAME REBAR
ASTM A706, GRADE 60	ALL WELDED REBAR
- WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- REINFORCING DETAILING, BENDING AND PLACING SHALL BE IN ACCORDANCE WITH CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE" LATEST EDITION.
- LAPS AT BAR SPLICES SHALL BE PER TYPICAL DETAILS OR AS NOTED OTHERWISE ON THE PLANS FOR CONCRETE AND 40 BAR DIA. OR 18" MINIMUM FOR MASONRY UNLESS NOTED OTHERWISE.
- VERTICAL BARS IN WALLS SHALL BE ACCURATELY PLACED AT THE CENTER OF THE WALL, UNLESS OTHERWISE NOTED ON DETAILS. A SHALL BE TIED IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 BAR DIA.
- REINFORCING STEEL SHALL BE PROVIDED WITH THE FOLLOWING AMOUNTS OF CONCRETE COVER, UNLESS NOTED OTHERWISE:

CONCRETE DEPOSITED AGAINST EARTH	3"
CONCRETE FORMED EXPOSED TO EARTH OR WEATHER	2"
COLUMN REINFORCING (INCLUDING COLUMN TIES)	1½"
BEAMS AND GIRDERS	1½"
SLAB (#11 OR SMALLER)	¾"
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE OR GROUT.
- UNLESS OTHERWISE NOTED IN DETAILS, FURNISH #3 SPACER TIES AT APPROXIMATELY 2'-6" ON CENTER IN ALL BEAMS AND FOOTINGS TO SECURE REINFORCING STEEL IN PLACE.

E. STRUCTURAL STEEL

- ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

STEEL	DESCRIPTION	ASTM GRADE	MIN. Fy
WF SHAPES	TYPICAL U.N.O.	A992	50 KSI
MISC. SHAPES	ANGLES, CHANNELS, WT	A36	36 KSI
PLATES	¾" AND THICKER	A572	50 KSI
PLATES	LESS THAN ¾" THICK	A36	36 KSI
HOLLOW STRUCTURAL SECTIONS (HSS)	TYPICAL U.N.O.	A500, GRADE "B"	46 KSI
PIPES	TYPICAL U.N.O.	A53, GRADE "B"	35 KSI

- ALL MAIN MEMBERS SHALL HAVE BOLTS CONFORMING TO ASTM A325 TYPE 1 AND MEET THE DIMENSIONAL REQUIREMENTS OF ANSI/ASME B18.2.6 WITH NUTS CONFORMING TO ASTM A563 AND WASHERS CONFORMING TO ASTM F436. NO SHIMS OR FILLERS EXCEEDING ¼" SHALL BE USED AT BOLTED CONNECTION WITHOUT PRIOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD. MACHINE BOLTS SHALL CONFORM TO ASTM A307, GRADE "A" AND ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE.
- ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS", AND AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" WITH THE EXCEPTION OF SECTIONS "3.1" AND "3.2" WHERE REFERENCES TO "STRUCTURAL DESIGN DRAWINGS" SHOULD BE REVISED TO REFERENCE "DESIGN DRAWINGS" THEREBY INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL DRAWINGS.
- WELDING OF STRUCTURAL STEEL SHALL BE BY THE SHIELDED METAL ARC (SMAW), FLUX CORED ARC (FCAW) OR OTHER APPROVED PROCESS PER AWS D1.1 USING APPROVED E70XX ELECTRODES OR ELECTRODE-FLUX COMBINATIONS CAPABLE OF DEPOSITING WELD METAL WITH A MAXIMUM DIFFUSIBLE HYDROGEN CONTENT OF 8 MILLITERS (ml) PER 100 GRAMS (H8) OF WELD METAL.
- ALL STRUCTURAL STEEL FABRICATION SHALL BE DONE IN A LICENSED SHOP APPROVED BY THE BUILDING DEPARTMENT AND ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS.
- UNLESS NOTED OTHERWISE, ALL METAL CONTACT EDGES SHALL RECEIVE MINIMUM SIZE FILLET WELDS PER AISI TABLE J2.4.
- ALL STRUCTURAL STEEL EXPOSED TO EARTH SHALL HAVE 3" CONCRETE COVER.
- WELDED SHEAR STUD CONNECTORS SHALL BE AWS D11 "TYPE B" HEADED STUDS MANUFACTURED PER ASTM A108, GRADE 1015 OR 1020 COLD FINISHED CARBON STEEL. DIMENSIONS SHALL COMPLY WITH AWS D11 FOR SIZES SPECIFIED. ALL W.H.S. SHALL USE COMPLETE PENETRATION WELDS.
- STRUCTURAL STEEL INDICATED AS ARCHITECTURAL EXPOSED (AESS) SHALL COMPLY WITH SECTION 10 OF THE LATEST AISC CODE OF PRACTICE FOR STEEL BUILDINGS.
- THE USE OF ROLLED STEEL SECTIONS AND/OR BOLTS MANUFACTURED OUTSIDE OF THE UNITED STATES WILL REQUIRE VERIFICATION THAT THE PRODUCTS COMPLY WITH APPLICABLE ASTM STANDARD. MILL CERTIFICATES WILL BE REQUIRED FOR ALL STEEL STEEL GRADES OTHER THAN ASTM-A36. WILL REQUIRE TESTING BY AN APPROVED LABORATORY. ALL FOREIGN BOLTS MUST BE APPROVED PRIOR TO THEIR USE.
- ALL STEEL NOTED AS GALVANIZED "HDO" SHALL BE HOT DIPPED ZINC COATED GALVANIZED AND SHALL COMPLY WITH ASTM A123/A123M; CONNECTORS/FASTENERS SHALL CONFORM WITH ASTM A153. ALL DAMAGED GALVANIZING SHALL BE REPAIRED AND SHALL COMPLY WITH ASTM A780.
- ALL STEEL AND FASTENERS SHALL BE H.D.G., U.N.O.
- ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL AT ALL EXTERIOR OR WET USE CONDITIONS.

F. STEEL DECKING

- STEEL DECKING SHALL BE OF THE TYPES AND GAUGES AS INDICATED ON THE DRAWINGS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS EXCEPT WHERE INDICATED OTHERWISE ON THE DRAWINGS.
- STEEL DECKING AND FLASHING SHALL BE FABRICATED OF SHEET METAL CONFORMING TO ASTM A653 WITH G90 GALVANIZATION COATING DESIGNATION.
- ALL NECESSARY ACCESSORY ITEMS SUCH AS CLOSURES, INSULATION CLIPS, ROOF SUMP RECESSES, ETC., SHALL BE GALVANIZED, FURNISHED AND INSTALLED AS REQUIRED.
- WELDING OF STEEL DECKING SHALL CONFORM TO AWS D1.3.
- ALL WELDS AND ABRASIONS SHALL BE GIVEN A PROTECTIVE COAT OF "GALVALLOY", "DRY-GALV", "GALVICON" OR APPROVED EQUAL.
- ALL METAL DECK SUPPORTING CONCRETE SLAB SHALL HAVE VENT TABS FOR CONCRETE VENTILATION. UNLESS NOTED OTHERWISE.
- CONDUITS OR PIPES SHALL NOT BE PLACED IN CONCRETE FILL OVER METAL DECK

G. COLD-FORMED STEEL FRAMING

- ALL STUDS AND TRACKS SHALL BE FORMED FROM STANDARD COMMERCIAL STEEL WITH A MINIMUM YIELD POINT PER PLANS CONFORMING TO EITHER ASTM A1008 GRADE C, ASTM A1010, OR ASTM A575 WITH $F_y = 33$ KSI FOR 43 MIL (18 GAUGE) AND LIGHTER, AND $F_y = 50$ KSI FOR HEAVIER GAUGES.
- METAL STUD MATERIAL THICKNESS:

MILLIMETER	GAGE
33	20
43	18
54	16
68	14
- ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR AT AN ANGLE AS REQUIRED TO SQUARELY FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED.
- STUDS AND TRACKS SHALL BE ATTACHED BY WELDING AND SELF DRILLING SCREWS AS NOTED ON THE DRAWINGS.
- BUTT WELDS OR SPLICES SHALL BE USED AT ALL JOINTS IN TRACK. SPLICES IN STUDS OR BRACES SHALL NOT BE PERMITTED. ALL WELDS SHALL BE FILLET, PLUG, BUTT OR SEAM WELDS. STUDS BURNED THROUGH BY WELDING SHALL BE PROVIDED WITH A SUITABLE STITCH PLATE OF SAME GAUGE.
- STEEL STUDS SHALL BE AS MANUFACTURED BY STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) IN ACCORDANCE WITH ICC-ES REPORT NO. ESR-3064P UNLESS APPROVED OTHERWISE.
- RUNNER TRACKS SHALL BE THE SAME GAGE AS STUDS SUPPORTED, UNLESS OTHERWISE NOTED. TRACKS SHALL BE FASTENED TO STRUCTURE AT 24" O.C. MAXIMUM UNLESS OTHERWISE NOTED.
- PROVIDE BLOCKING OF WALL STUDS AT 4'-0" O.C. MAXIMUM WHERE SHEATHING IS NOT PRESENT ON BOTH SIDES OF STUDS.
- WHERE NECESSARY, STEEL STUDS SHALL BE COORDINATED WITH GLAZING MANUFACTURER, MECHANICAL, ELECTRICAL AND ALL OTHER TRADES.
- ALL LIGHT GAUGE STEEL FRAMING INCLUDING CLIPS AND ANGLES SHALL BE G90 GALVANIZED.
- ALL SCREWS SHALL BE SELF DRILLING TYPE, SHALL BE CORROSION RESISTANT, AND SHALL COMPLY WITH ASTM (D113), ASME B18.6.4 AND ICC-ES AC 118. SCREWS SHALL HAVE MINIMUM 3 EXPOSED THREAD PROTRUDING THROUGH FASTENED STEEL FACE. THE DISTANCE FROM THE CENTER OF A FASTENER TO THE EDGE OF ANY PART SHALL NOT BE LESS THAN 1.5x. THE DISTANCE BETWEEN THE CENTERS OF FASTENERS SHALL NOT BE LESS THAN 3.4.
- WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 USING E60XX SERIES ELECTRODES. ALL FIELD WELDING SHALL HAVE SPECIAL INSPECTION.
- POWER ACTUATED FASTENER (P.A.F.) SHALL BE INSTALLED PER CURRENT ICC-ES REPORT(S). PAF IN STEEL SHALL HAVE MINIMUM 1" SPACING AND MINIMUM ½" EDGE DISTANCE.
- ALL STUDS SHALL BE SOLID WITHOUT PUNCH OUTS.

V. DESIGN BASIS

- APPLICABLE CODE: CALIFORNIA BUILDING CODE (CBC), 2019 EDITION.
- VERTICAL LIVE LOADS:

AREA	LIVE LOAD (l)	
	UNIFORM	CONCENTRATED
ROOF	20 PSF	—
—	—	—
—	—	—

NOTES:

- THE CONDITION OF UNIFORM OR CONCENTRATED LIVE LOAD PRODUCING THE GREATER STRESS OR DEFLECTION GOVERNS DESIGN. UNIFORM AND CONCENTRATED LIVE LOADS ARE NOT ADDITIVE U.N.O.
- THE MINIMUM DESIGN UNIFORM LIVE LOAD IS REDUCED BASED ON MEMBER TRIBUTARY AREA IN ACCORDANCE WITH CBC SECTION 1607.
- CONCENTRATED LIVE LOAD PLACED UPON ANY AREA 2½ FEET SQUARE IN ACCORDANCE WITH CBC SECTION 1607.4.

C. LATERAL LOADS:

- SEISMIC:

IMPORTANCE FACTOR, I = 1.0
SEISMIC DESIGN CATEGORY = D
RISK CATEGORY = II
SITE CLASS = D
MAPPED MCE SPECTRAL RESPONSE ACCELERATION, $S_s = 1.328g$
MAPPED MCE SPECTRAL RESPONSE ACCELERATION, $S_1 = 0.472g$
SPECTRAL RESPONSE ACCELERATION PARAMETER, $S_{DS} = 0.886g$
SPECTRAL RESPONSE ACCELERATION PARAMETER, $S_{D1} = 0.575g$
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

STRUCTURAL SYSTEM "R" & SEISMIC RESPONSE COEFFICIENT AS FOLLOWS:			
BASIC STRUCTURAL SYSTEM	LATERAL-FORCE-RESISTING SYSTEM	R	SEISMIC RESPONSE COEFFICIENT, C_s
BEARING WALL	SPECIAL REINFORCED CONCRETE MASONRY SHEAR WALLS	5.0	0.177g
CANOPIES	NONBUILDING STRUCTURE INVERTED PENDULUM	2.0	0.443g

2. WIND

ULTIMATE DESIGN WIND SPEED = 96 MPH
EXPOSURE = C

VI. MATERIALS

A. FOUNDATION

- REFER TO THE PROJECT GEOTECHNICAL REPORT FOR ALLOWABLE FOUNDATION LOADS:

PROPOSED TRAINING GROUND IMPROVEMENT
ORANGE COUNTY FIRE AUTHORITY, IRVINE, CA
BY GECON WEST, INC.
REPORT NO. W060-88-02, DATED FEBRUARY 11, 2020
- A QUALIFIED SOIL ENGINEER SHALL VERIFY THAT CONSTRUCTION AT THE SITE IS IN ACCORDANCE WITH GENERALLY ACCEPTED GEOTECHNICAL PRACTICES AND THE GEOTECHNICAL REPORT. FINISHED EXCAVATION FOR FOUNDATION SHALL BE NEAT AND TRUE TO LINE WITH ALL LOOSE MATERIAL AND STANDING WATER REMOVED FROM EXCAVATIONS.
- PRIOR TO PLACING CONCRETE, EXCAVATIONS SHALL BE CHECKED AND APPROVED BY A QUALIFIED SOILS ENGINEER FOR COMPLIANCE WITH THE GEOTECHNICAL REQUIREMENTS.
- ALL FILL MATERIAL IS TO BE APPROVED BY THE SOILS ENGINEER AND SHALL BE COMPACTED TO MINIMUM 90% OF OPTIMUM DENSITY OR AS REQUIRED BY THE GEOTECHNICAL REPORT. INSPECTION IS REQUIRED DURING FILL AND COMPACTION.
- ANY UTILITY LINES ENTERING UNDER THE BUILDING SHALL HAVE A NON-PERVIOUS BACKFILL MATERIAL USED AT THE BUILDING PERIMETER TO ELIMINATE ANY TRANSMISSION OF SUBSURFACE MOISTURE PENETRATION UNDER THE BUILDING THROUGH THE UTILITY TRENCH.
- CLASS 2 AGGREGATE BASE SHALL BE PER STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

B. REINFORCED CONCRETE

- CEMENT SHALL CONFORM TO ASTM C-150, SEE NOTE "5" BELOW FOR CEMENT TYPE REQUIRED BASED ON CONCRETE USE. FLY ASH NOT ALLOWED.
- AGGREGATES SHALL CONFORM TO ASTM C-33 FOR STRUCTURAL NORMAL-WEIGHT CONCRETE (1" MAXIMUM SIZE).
- READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94.
- CONCRETE DESIGN MIXES SHALL BE IN ACCORDANCE WITH CHAPTER 26 OF ACI 318 AND SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF CALIFORNIA, AND HIRED BY CONTRACTOR.
- ALL CONCRETE SHALL SATISFY BOTH THE MINIMUM STRENGTH REQUIREMENT AND MAXIMUM WATER-CEMENT RATIO BY WEIGHT AS FOLLOWS:

CONCRETE USE	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS F'_c	MAXIMUM WATER CEMENT RATIO BY WEIGHT	CEMENT TYPE
RAISED SLAB	4,500 PSI	0.45	II / Y
SLAB ON GRADE	4,500 PSI	0.45	II / Y
FOOTINGS	4,500 PSI	0.45	II / Y

- THE SLUMP SHALL BE 4" FOR ALL CONCRETE WORK.
- ADMIXTURES MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
- ADMIXTURES USED TO INCREASE THE WORKABILITY OF THE CONCRETE SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOULDS, GROOVES, REVEALS, SCUPPERS, ORNAMENTS, CLIPS OR TEXTURES REQUIRED TO BE CAST INTO CONCRETE AND LOCATIONS AND EXTENTS OF DEPRESSIONS, CURBS AND RAMPS.
- PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS OTHERWISE NOTED. CONCRETE FORM TOLERANCES SHALL BE WITHIN ACI 318 & ACI 301 STANDARDS.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL BE SECURED IN POSITION AND INSPECTED BY THE LOCAL BUILDING DEPARTMENT INSPECTOR PRIOR TO THE POURING OF ANY CONCRETE.
- LOCATION OF ALL CONSTRUCTION JOINTS NOT SPECIFICALLY INDICATED ON THE DRAWINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING REINFORCING STEEL.
- THE AGGREGATE GRADATION FOR CONCRETE MIXES FOR SLABS-ON-GRADE AND METAL DECK FILL SHALL RETAIN, BY WEIGHT, 8% MINIMUM TO 18% MAXIMUM ON EACH SIEVE SIZE EXCLUDING 1½" AND 10. 100.

C. CONCRETE MASONRY

- MINIMUM 28 DAY COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY: $f_m = 1,500$ PSI.
- UNITS: MEDIUM WEIGHT OPEN END BLOCKS CONFORMING TO ASTM C90.
- REINFORCING STEEL: ASTM A615, GRADE 60.
- MORTAR: ASTM C270, TYPE S.
- GROUT: ASTM C496, COMPRESSIVE STRENGTH OF 2,000 PSI FOR $f_m = 1,500$ PSI BLOCK ALL CELLS SHALL BE FULLY GROUTED.
- GROUT DESIGN MIXES SHALL BE IN ACCORDANCE WITH TMS 602/ACI 530.1/ASCE 6, ARTICLE 2.2 AND SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF CALIFORNIA, AND HIRED BY CONTRACTOR.
- GROUTING OF ANY WALL SECTION SHALL BE COMPLETED IN ONE DAY WITH NO INTERRUPTIONS GREATER THAN ONE HOUR.
- BETWEEN GROUT POURS A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING MASONRY AT THE SAME ELEVATION WITH THE GROUT STOPPING 1½" BELOW A MORTAR JOINT, EXCEPT AT BOND BEAMS THE GROUT POUR SHALL BE STOPPED A MINIMUM ½" BELOW THE TOP OF THE MASONRY.
- ALL LIGHT GAUGE STEEL SHALL BE PROVIDED FOR ALL GROUT POURS OVER 5 FEET IN HEIGHT: CLEAN OUTS SHALL BE PROVIDED IN THE BOTTOM COURSE AT ALL VERTICAL BARS, BUT SHALL NOT BE SPACED MORE THAN 32" ON CENTER. CLEAN OUTS SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.
- MASONRY UNITS MAY BE LAID TO THE FULL HEIGHT OF THE GROUT POUR AND GROUT SHALL BE PLACED IN A CONTINUOUS POUR IN LIFTS NOT EXCEEDING 6'-0".
- VERTICAL CONTROL JOINT FOR WALLS SHALL BE PLACED AT SPACINGS NOT TO EXCEED 40 FEET, UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR CONTROL JOINT DETAILS AT EXTERIOR FINISHES.

I. GENERAL

- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND THE REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND THEY SHALL BE IN ACCORDANCE WITH ALL STATE AND FEDERAL SAFETY REQUIREMENTS.
- THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE UNLESS OTHERWISE SPECIFICALLY INDICATED. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN OR OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING AND SAFETY NETS. CONTRACTOR, AT HIS OWN EXPENSE, SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECTION OF SAME IN THE FIELD. OBSERVATION VISITS BY THE ARCHITECT OR STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS AND DO NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES FOR THE ABOVE.
- THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, AND CONFIRMING THAT WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION ITEMS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH ANY WORK.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK AND NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH WORK SO INVOLVED.
- DO NOT USE SCALED DIMENSIONS; USE WRITTEN DIMENSIONS. WHERE NO DIMENSION IS PROVIDED, CONSULT THE ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN SLABS, BEAMS, OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, OR OTHER ITEMS UNLESS OTHERWISE NOTED ON STRUCTURAL PLANS. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, OR OTHER ITEMS. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS.
- SEE DRAWINGS OTHER THAN STRUCTURAL FOR KINDS OF FLOOR FINISH AND THEIR LOCATION. FOR DEPRESSIONS IN FLOOR SLABS, FOR OPENINGS IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL AND MECHANICAL FEATURES, FOR ROADWAY PAVING, WALKS, RAMPS, STAIRS, CURBS, ETC.
- HOLES AND OPENINGS THROUGH WALLS, FLOORS AND ROOFS FOR DUCTS, PIPING AND VENTILATIONS SHALL BE COORDINATED BY THE CONTRACTOR WHO SHALL VERIFY SIZES AND LOCATION OF SUCH HOLES OR OPENINGS WITH THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS AND THESE SUB-CONTRACTORS.
- IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED FOR ON THE DRAWINGS OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE CALLED FOR OR SHOWN.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY LICENSES AND PERMITS. THE CONTRACTOR SHALL CONFORM TO ALL STATE AND LOCAL LAWS GOVERNING THE WORK.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES BEFORE BEGINNING WORK. SPECIAL CARE SHALL BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN IN SERVICE DURING CONSTRUCTION.
- ALL FINISHES, STRUCTURAL ELEMENTS AND ARCHITECTURAL FEATURES AFFECTED BY CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED TO MATCH EXISTING CONSTRUCTION.
- THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INCLUDE

8 CONCRETE CONSTRUCTION (CBC SECTION 1705.3, TABLE 1705.3, AND AISC 318)

- 8.1 THE SPECIAL INSPECTOR SHALL PROVIDE CONTINUOUS INSPECTION AS FOLLOWS:
- A. DURING THE PLACEMENT OF REINFORCEMENT AND CONCRETE IN SEISMIC FORCE RESISTING MOMENT FRAMES AND SEISMIC SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, OR F (IN ACCORDANCE WITH CBC 1705.12) AND ALL STRUCTURES CONSTRUCTED IN WIND EXPOSURE CATEGORIES A, B, C, AND D (AS REQUIRED IN CBC 1705.11).
 - B. DURING PNEUMATIC APPLIED CONCRETE FOR REPAIRS AND SEISMIC STRENGTHENING OF BUILDINGS AND STRUCTURES.
 - C. PRIOR TO AND DURING THE INSTALLATION OF ADHESIVE/GROUTED ANCHORS AND EMBEDMENTS.
 - D. DURING THE MOLDING OR CONSTRUCTION OF CONCRETE TEST CYLINDERS, BEAMS, CORES, OR PANELS FOR SHOTCRETE CORES.
 - E. DURING PLACEMENT OF REINFORCING STEEL AND CONCRETE FOR DRILLED PILES OR CAISSONS.
 - F. DURING THE APPLICATION OF PRESTRESSING FORCES AND GROUTING OF TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.
 - G. PRIOR TO AND DURING THE PLACEMENT OF CONCRETE AROUND ANCHOR BOLTS.
- 8.2 THE SPECIAL INSPECTOR SHALL PROVIDE PERIODIC INSPECTION AS FOLLOWS:
- A. AT THE START AND DURING EACH PHASE OF THE PROJECT TO ASCERTAIN PROPOSED CONFORMITY OF MATERIALS, PERSONNEL QUALIFICATIONS AS REQUIRED, AND PROCEDURES WITH THE APPLICABLE CODES, PLANS AND SPECIFICATIONS.
 - B. ANCHORAGES FOR EQUIPMENT AND NON-STRUCTURAL COMPONENTS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F (CBC 1705.12).
 - C. DURING THE PLACEMENT OF CONCRETE (ONLY WHERE PERMITTED BY CODE AND AISC 318)
 - D. AT SUCH FREQUENCY AS NECESSARY TO CLEARLY CONFIRM THE PLACEMENT OF TIES, HOOPS, STIRRUPS, CONNECTIONS, AND ANY ADDITIONAL SPECIFIED REINFORCEMENT (I.E. AT OPENINGS, BEAMS, CORNERS, COLUMNS, PIERS AND CAISSONS) BEFORE THEY ARE COVERED.
 - E. DURING SAMPLING OF CONCRETE AT DISCHARGE FROM MIXER.
 - F. VERIFICATION OF DELIVERED MIX DESIGN BEFORE ANY CONCRETE IS PLACED.
 - G. VERIFICATION OF THE TRAVEL TIME AND ROTATIONS OF THE DRUM OF THE DELIVERED MIX BEFORE ANY CONCRETE IS PLACED. (ASTM C94)
 - H. MAINTENANCE OF SPECIFIED/APPROVED CURING TEMPERATURE AND TECHNIQUES.
 - I. FABRICATION AND PLACING OF PRECAST CONCRETE MEMBERS.

9 MASONRY CONSTRUCTION (CBC SECTION 1705.4 AND 2104)

- 9.1 THE SPECIAL INSPECTOR SHALL VERIFY COMPLIANCE OF THE FOLLOWING, PRIOR TO CONSTRUCTION:
- A. CERTIFICATES OF COMPLIANCE FOR MATERIALS USED IN MASONRY CONSTRUCTION. (CBC 1705.4)
 - B. PROPORTIONS OF MATERIALS – INCLUDING ADMIXTURES – IN MORTAR AND GROUT.
 - C. FM PRIOR TO CONSTRUCTION, AND FOR EVERY 5,000 SQ. FT. DURING CONSTRUCTION. (CBC 1705.4)
- 9.2 THE SPECIAL INSPECTOR SHALL PROVIDE CONTINUOUS INSPECTION AS FOLLOWS:
- A. DURING PLACEMENT OF ALL MASONRY NON-OPEN END UNITS, REINFORCEMENT, CONNECTORS.
 - B. DURING INSTALLATION AND IMMEDIATELY PRIOR TO CLOSING OF CLEANOUTS.
 - C. DURING ALL GROUTING OPERATIONS.
 - D. DURING PREPARATION AND TAKING OF PRISMS OR TEST SPECIMENS.
 - E. DURING WELDING OF REINFORCING STEEL.
- 9.3 THE SPECIAL INSPECTOR SHALL PROVIDE PERIODIC INSPECTION AS FOLLOWS:
- A. AT THE START AND DURING EACH PHASE OF THE PROJECT TO CONFIRM MATERIAL CERTIFICATIONS AND TESTING REQUIREMENTS, PERSONNEL QUALIFICATIONS AS REQUIRED, AND PROCEDURES WITH THE APPLICABLE CODES, PLANS AND SPECIFICATIONS.
 - B. AT SUCH FREQUENCY AS NECESSARY, TO VERIFY THAT THE CLEANLINESS, MORTAR PROJECTIONS AND REINFORCEMENT CLEARANCES WITHIN GROUT SPACES, CONFORM TO THE MINIMUM REQUIREMENTS.
 - C. TO VERIFY THAT THE GROUT POURS AND CONSTRUCTION JOINTS ARE IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
 - D. TO VERIFY THAT ALL DOWELS, ANCHOR BOLTS, EMBED PLATES, INSERTS, AND ANY OTHER DETAILS OF ANCHORAGE TO MASONRY ARE SECURED IN PLACE.
 - E. TO VERIFY TYPE, SIZE AND LOCATION OF STRUCTURAL ELEMENTS INCLUDING DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.
 - F. TO VERIFY PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 F) OR HOT WEATHER (TEMPERATURE ABOVE 90 F).

10 LIGHT FRAMED CONSTRUCTION (CBC SECTION 1705.5 AND 1706.12)

- 10.1 SHOP FABRICATED ASSEMBLIES (CBC 1704.2.5): THE SPECIAL INSPECTOR SHALL VERIFY THE QUALITY AND WORKMANSHIP FOR THE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES. THE SPECIAL INSPECTOR SHALL REVIEW THE FABRICATOR'S DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES FOR COMPLETENESS AND ADEQUACY. APPROVAL TO WAIVER SPECIAL INSPECTION REQUIREMENTS OF FABRICATED MEMBERS SHALL BE OBTAINED ON REVIEW OF THE FABRICATOR'S WRITTEN AND PROCEDURAL QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY.
- 10.2 SITE FABRICATED ASSEMBLIES (CBC 1705.5): THE SPECIAL INSPECTOR SHALL INSPECT THE WOOD STRUCTURAL PANEL SHEETING OF HIGH-LOAD DIAPHRAGMS TO ASCERTAIN WHETHER IT IS OF THE GRADE AND THICKNESS SHOWN ON THE APPROVED BUILDING PLANS. HE MUST VERIFY THE NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, THE NAIL OR STAPLE DIAMETER AND LENGTH, THE NUMBER OF FASTENER LINES AND THAT THE SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGE MARGINS AGREES WITH THE APPROVED BUILDING PLANS.
- 10.3 STRUCTURAL WOOD (CBC 1705.12.2)
- 10.3.1 THE SPECIAL INSPECTOR SHALL PROVIDE PERIODIC INSPECTION TO VERIFY THE MATERIALS FOR CONSTRUCTION FOR COMPONENTS WITHIN THE SEISMIC-FORCE-RESISTING SYSTEM AS FOLLOWS:
- A. NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS.
 - B. LUMBER SIZES, GRADING, ADHESIVES AND PRESERVATIVES USED.
 - C. IDENTIFICATION OR QUALITY MARK ON PRESERVATIVE-TREATED WOOD BY AN ACCREDITED INSPECTION AGENCY, COMPLYING WITH REQUIREMENTS OF THE AMERICAN LUMBER STANDARDS TREATED WOOD PROGRAM.
 - D. MOISTURE CONTENT AND LUMBER SPLITS.
 - E. SURFACE TREATMENT FOR PROPER PRESERVATIVE, SEALER, PRIME AND PAINT.
 - F. CAMBER.
- 10.3.2 CONTINUOUS SPECIAL INSPECTION IS REQUIRED DURING FIELD GLUING OPERATIONS OF ELEMENTS OF THE SEISMIC-FORCE-RESISTING SYSTEM.
- 10.4 COLD FORMED STEEL MEMBERS (CBC 2211)
- 10.4.1 THE SPECIAL INSPECTOR SHALL VERIFY THE MATERIALS FOR CONSTRUCTION AS FOLLOWS:
- A. PHYSICAL PROPERTIES (GRADE, TYPE AND QUALITY), STUDS AND TRACK SIZES, LENGTH OF WEB, FLANGES, RETURN UPS AND GAGE (STEEL SHEET) THICKNESS.
 - B. METALLIC COATING DESIGNATION, COLOR OR PROTECTIVE COATING (GALVANIZED PER ASTM A 1003).
 - C. MECHANICAL PROPERTIES, YIELD STRENGTH, PRODUCT DESIGNATE, AND MANUFACTURER.
 - D. FASTENERS (PINS AND INSTALLATION SCREWS (WITH PROTECTIVE COATING WHEN SPECIFIED) FOR SCREW SHEAR, PULL-OUT REQUIREMENTS, DIAMETER, AND POINT STYLE IN RELATION TO COMBINED THICKNESS OF ALL CONNECTED STEEL FRAME MEMBERS.
- 10.5 CONSTRUCTION (CBC 1705.2, 1705.3, 2211, 2304 AND 2308)
- 10.5.1 THE SPECIAL INSPECTOR SHALL PROVIDE PERIODIC INSPECTION TO VERIFY THE FOLLOWING FOR COMPLIANCE TO APPROVED PLANS AND CODE REQUIREMENTS:
- A. ROOF DIAPHRAGM TO BLOCKING OR TOP TRACK FASTENER SIZE AND SPACING.
 - B. FIELD INSTALLATION AND CONNECTION DETAILS, NAILING, BOLTING, ANCHORING, DRILLING, CUTTING, NOTCHING, BLOCKING AND BRIDGING.
 - C. INSTALLATION AND LOCATION OF DRAG STRUT, DIAPHRAGM COLLECTOR, BRACES, ANCHORS AND HOLD DOWNS.
 - D. FRAMING SHEAR WALL PANEL TYPE/GRADE INCLUDING PANEL LAYOUT, SHEAR WALL LENGTH, PANEL THICKNESS AND GRADE, STUD SIZE AND GRADE/TYPE, SPACING, AND NAILING/FASTENING CONDITIONS.
 - E. SHEAR WALL (BOUNDARY AND FIELD) FASTENING DETAILS.
 - F. OPENING/PENETRATION LOCATIONS AND REQUIREMENTS FOR SUPPLEMENTAL STRAPPING WITH BLOCKING.
 - G. ACCEPTABILITY OF BLOCKING FIT, CONNECTION, SIZE, LOCATION AND ORIENTATION.
 - H. SHAKERS (NAILS PENETRATING STRUCTURAL PANEL SHEATHING ONLY).
 - I. STORAGE AND CUTTING OF LUMBER.
 - J. WELDING AND FRAMING CONSTRUCTION FOR PROPER FIT OF JOINTS AND CONNECTIONS.
 - K. CONNECTION HARDWARES, SUCH AS STRAPS, ANGLES, HANGERS, FRAMING CLIPS AND FASTENERS (NAIL, BOLT, LAG, OR SCREW) FOR COMPLIANCE WITH SPACING, EDGE DISTANCE, SIZE PENETRATION, AND GAGE REQUIREMENTS.

6 CONTRACTOR RESPONSIBILITIES

- 6.1 NOTIFICATIONS: THE CONTRACTOR SHALL COORDINATE THE TESTING, INSPECTION, AND STRUCTURAL OBSERVATION SERVICES WITH THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR AND TESTING AGENCY 24 HOURS IN ADVANCE, AND THE STRUCTURAL OBSERVER 48 HOURS IN ADVANCE OF REQUIRED OBSERVATIONS FOR SCHEDULING PURPOSES. FAILURE BY THE CONTRACTOR TO MEET OBSERVATION SCHEDULES MAY REQUIRE REMOVAL OF ANY SUBSEQUENT WORK FOR OBSERVATION. THE CONTRACTOR SHALL BE LIABLE FOR EXPENSES ENTAILLED IN THE REMOVAL AND REPLACEMENT OF ANY MATERIAL REQUIRED TO ALLOW INSPECTION OR STRUCTURAL OBSERVATION.
- 6.2 THE CONTRACTOR SHALL REPAIR AND/OR REPLACE WORK THAT DOES NOT MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. THE CHOICE OF REPAIR OR REPLACEMENT IS SUBJECT TO THE APPROVAL OF THE OWNER, THE RDP, THE ENGINEER RESPONSIBLE FOR THE STRUCTURAL DESIGN, AND THE AUTHORITIES HAVING JURISDICTION IN WHICH THE PROJECT IS CONSTRUCTED.
- A. THE CONTRACTOR SHALL ENGAGE AN ENGINEER OR ARCHITECT TO PREPARE REPAIR AND/OR REPLACEMENT PROCEDURES.
 - B. THE ENGINEER OR ARCHITECT SHALL BE REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE ENGINEER OR ARCHITECT SELECTED SHALL BE SUBJECT TO THE APPROVAL OR REJECTION OF THE RDP, AUTHORITIES HAVING JURISDICTION, AND OWNER.
 - C. PROCEDURES SHALL BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY THE RDP, ENFORCEMENT AGENCY, AND OWNER BEFORE PROCEEDING WITH CORRECTIVE ACTION.
- 6.3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS OF:
- A. REVIEW OF PROPOSED REPAIR AND/OR REPLACEMENT PROCEDURES BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND THE INSPECTORS AND TESTING AGENCIES
 - B. REPAIR OR REPLACEMENT OF WORK THAT DOES NOT MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS.
 - C. RE-TESTING AND RE-INSPECTION OF MATERIALS, WORK, AND/OR PRODUCTS THAT DO NOT MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS AND SHOP DRAWINGS/SUBMITTAL DATA.
- 6.4 SUBMITTALS:
- A. SUBMIT SHOP DRAWINGS, DESIGN DATA, CERTIFICATIONS, MANUFACTURER'S FIELD REPORTS, AND OTHER QUALITY CONTROL SUBMITTALS AS REQUIRED BY THE CONTRACT DOCUMENTS FOR REVIEW BY THE RDP.

7 STEEL CONSTRUCTION (CBC SECTION 1705.2 AND AISC 360)

- 7.1 SUBMITTALS
- 7.1.1 THE CONTRACTOR SHALL PROVIDE COPIES OF THE SUBMITTALS REVIEWED BY THE RDP TO EACH SPECIAL INSPECTOR.
- 7.1.2 THE SPECIAL INSPECTOR SHALL OBTAIN COPIES OF THE FOLLOWING SUBMITTALS FOR THEIR REVIEW:
- A. SHOP AND ERECTION DRAWINGS.
 - B. WELDING PROCEDURE SPECIFICATIONS (WPS).
 - C. MANUFACTURER'S MILL CERTIFICATE
 - D. MILL TEST REPORTS
 - E. CHARTER V-NOTCH (CVN) IMPACT TEST REPORTS
 - F. WELDERS CERTIFICATES
- 7.2 WELDING (IN COMPLIANCE WITH AWS D1.1)
- 7.2.1 THE SPECIAL INSPECTOR SHALL:
- A. ASCERTAIN THAT ALL FABRICATION AND ERECTION BY WELDING IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPROVED CONSTRUCTION DOCUMENTS, THE BUILDING CODE AND AWS STANDARDS.
 - B. VERIFY THAT ONLY MATERIALS AND PROCEDURES CONFORMING TO THE REQUIREMENTS OF AWS, AISC OR ASTM, AND SPECIFIED ON APPROVED PLANS ARE USED.
 - C. REVIEW ALL WELDING PROCEDURE SPECIFICATION (WPS), VISUALLY INSPECT THE PREPARATIONS, WELDING PROCESS, ELECTRODES AND EQUIPMENT USED, FOR COMPLIANCE, AND VERIFY THE VARIABLES ARE WITHIN ESTABLISHED PARAMETERS.
 - D. VERIFY THAT INDIVIDUAL QUALIFICATION OF WELDERS, WELDING OPERATORS AND TACK WELDERS ARE CURRENT, AND IN ACCORDANCE WITH THE WORK TO BE PERFORMED.
 - E. VERIFY THAT THE FILLER METAL FOR DEMAND CRITICAL WELDS AND ALL WELDS IN MEMBERS AND CONNECTIONS IN THE SEISMIC LOAD RESISTING SYSTEM, AS DESIGNATED IN THE CONTRACT DOCUMENTS, MEETS THE MINIMUM CHARTER V-NOTCH TOUGHNESS REQUIREMENTS. (AWS D1.6)
 - F. VISUALLY INSPECT ALL WELDS AND VERIFY THAT ALL DISCONTINUITIES (SUCH AS THOSE CREATED BY ERRORS/FABRICATION/OR ERECTION OPERATIONS) ARE REPAIRED.
- 7.2.2 PERIODIC INSPECTIONS ARE PERMITTED DURING WELDING OF THE FOLLOWING ITEMS, PROVIDED VISUAL INSPECTION IS CONDUCTED PRIOR TO COMPLETION AND/OR SHIPMENT OF SHOP WELDS:
- A. SINGLE-PASS FILLET WELDS NOT EXCEEDING 5/16 IN.
 - B. FLOOR AND ROOF DECK WELDING.
 - C. WELDED STUDS IN STRUCTURAL DIAPHRAGM OR COMPOSITE SYSTEMS.
 - D. WELDED SHEET PILE FOR COLD-FORMED STEEL FRAMING STUDS AND JOISTS.
 - E. STAIR AND RAILING SYSTEMS.
- 7.2.3 THE SPECIAL INSPECTOR SHALL PROVIDE CONTINUOUS INSPECTION FOR SHOP AND FIELD WELDING PER CBC 1705.12 AND AISC 341. CONTINUOUS INSPECTION IS ALSO REQUIRED FOR SINGLE PASS FILLET WELDS EXCEEDING 5/16". MULTI-PASS WELDS, GROOVE WELDS, WHERE SPECIFICALLY INDICATED ON DRAWINGS, AND OTHER WELDS NOT LISTED FOR PERIODIC INSPECTION.
- 7.2.4 EXCEPT FOR SPECIAL MOMENT-RESISTING FRAMES, SPECIAL CONCENTRIC BRACED FRAMES, ECCENTRIC BRACED FRAMES, OR BUCKLING RESTRAINED BRACED FRAMES, SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE WORK IS PERFORMED ON THE PREMISES OF A FABRICATOR CURRENTLY REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION PER SECTION CBC 1704.2.5, UNLESS OTHERWISE REQUIRED BY THE RDP.
- 7.2.5 PROVIDE NON-DESTRUCTIVE TESTING FOR FULLY RESTRAINED CONNECTIONS BY ULTRASONIC TESTING OR BY RADIOGRAPHY, UNLESS REQUIRED OTHERWISE IN AWS D1.1 OR AS SPECIFIED BY THE RDP:
- A. COMPLETE JOINT PENETRATION GROOVE WELDS.
 - B. PARTIAL PENETRATION GROOVE WELDS IN COLUMN SPICES.
 - C. BASE METAL THICKER THAN 1-1/2 INCHES WHERE SUBJECT TO THROUGH-THICKNESS WELD SHRINKAGE STRAINS.
 - D. OTHER NON-DESTRUCTIVE TESTING AS REQUIRED BY AISC 341 AND THE RDP.
- 7.2.6 REQUIRED VERIFICATION AND INSPECTION FOR STEEL CONSTRUCTION AS DETAILED IN AISC 360, CHAPTER N.
- 7.3 HIGH STRENGTH BOLTING
- 7.3.1 HIGH STRENGTH BOLTING SHALL BE INSTALLED IN ACCORDANCE WITH THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" AS APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RSCC), UNLESS OTHERWISE NOTED ON THE APPROVED PLANS AND SPECIFICATIONS.
- 7.3.2 THE SPECIAL INSPECTOR SHALL:
- A. DETERMINE THAT THE SPECIFIED REQUIREMENTS FOR BOLTS, NUTS, WASHERS AND PAINT, BOLTED PARTS, INSTALLATION AND TIGHTENING STANDARDS ARE MET.
 - B. OBSERVE THE PRE-INSTALLATION TESTING AND CALIBRATION PROCEDURES (WHEN SUCH PROCEDURES ARE REQUIRED OR SPECIFIED). THE CALIBRATED WRENCH TIGHTENING INSTALLATION PROCEDURE SHALL BE CALIBRATED DAILY FOR EACH BOLT DIAMETER, LENGTH AND GRADE USING FASTENER ASSEMBLIES THAT ARE BEING INSTALLED.
 - C. VERIFY THAT THE SELECTED PROCEDURE FOR INSTALLATION IS PROPERLY USED TO TIGHTEN BOLTS, AND TO ACHIEVE THE REQUIRED PRETENSION (WHEN SPECIFIED).
- 7.3.3 IN BOLTED CONNECTIONS THAT ARE SLIP-CRITICAL OR REQUIRE PRETENSIONING, THE SPECIAL INSPECTOR SHALL DETERMINE THAT ALL AREAS ON THE FAYING SURFACE BETWEEN BOLTS ARE FREE OF PAINT OR ZINC-COATING, UNLESS QUALIFIED/TESTED IN ACCORDANCE WITH THE 2009 RSCC SPECIFICATION APPENDIX A AND APPROVED BY THE RDP.
- 7.3.4 SLIP-TIGHT AND PRETENSIONED BEARING CONNECTIONS, IDENTIFIED AS NOT BEING SLIP-CRITICAL, NEED NOT BE INSPECTED FOR BOLT TENSION, OTHER THAN TO ENSURE THAT ALL PILES OF THE CONNECTED MATERIALS HAVE BEEN DRAWN TOGETHER IN FIRM CONTACT.
- 7.3.5 PERIODIC INSPECTION FOR BOLTED CONNECTIONS MAY BE PERFORMED IN ACCORDANCE WITH AISC SPECIFICATIONS AND RSCC SPECIFICATIONS, INCLUDING:
- A. THE TURN-OF-NUT METHOD WITH MATCH-MARKING TECHNIQUES.
 - B. THE DIRECT TENSION INDICATOR METHOD.
 - C. THE ALTERNATE DESIGN FASTENERS (TWIST-OFF BOLTS).
 - D. JOINTS DESIGNATED AS SNUG TIGHT.
- 7.3.6 THE SPECIAL INSPECTOR SHALL PROVIDE CONTINUOUS MONITORING FOR :
- A. TURN-OF-NUT METHOD WITHOUT MATCH-MARKING.
 - B. PRETENSIONING USING THE CALIBRATED WRENCH METHOD.

1 DEFINITIONS

- 1.1 APPROVED AGENCY: THE APPROVED AGENCY SHALL BE AN ESTABLISHED AND RECOGNIZED AGENCY REGULARLY ENGAGED IN CONDUCTING TESTS OR FURNISHING INSPECTION SERVICES, AND APPROVED BY THE RDP AND THE BUILDING OFFICIAL. (CBC 1702.1).
- 1.2 APPROVED FABRICATOR: A FABRICATOR REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES WITHOUT SPECIAL INSPECTION. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL AND THE RDP (CBC 1704.2.1).
- 1.3 CERTIFICATE OF COMPLIANCE: A CERTIFICATE STATING THAT THE MATERIALS AND PRODUCTS MEET SPECIFIED STANDARDS OR THE WORK WAS DONE IN COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS (CBC 1702).
- 1.4 RDP: REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF THE PROJECT. A REGISTERED DESIGN PROFESSIONAL SHALL BE A REGISTERED STRUCTURAL ENGINEER, A REGISTERED CIVIL ENGINEER, OR A LICENSED ARCHITECT HOLDING A VALID CERTIFICATE TO PRACTICE IN THE STATE OF CALIFORNIA.
- 1.5 SPECIAL INSPECTOR: A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND RDP, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION, REQUIRING SPECIAL INSPECTION (CBC 1704.2). THE SPECIAL INSPECTOR SHALL HAVE ACTUAL PERSONAL KNOWLEDGE, OBTAINED BY PERSONAL INSPECTION OF THE WORK OF CONSTRUCTION.
- 1.6 SPECIAL INSPECTION: INSPECTION OF THE MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS REQUIRING SPECIAL EXPERTISE TO ENSURE COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS (CBC 110, 1702 & 1704). THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS BY THE BUILDING OFFICIAL (CBC 110).
- 1.7 SPECIAL INSPECTION, CONTINUOUS: CONSTANT FULL-TIME INSPECTION OF THE WORK OF CONSTRUCTION, IN ALL STAGES OF ITS PROGRESS, BY THE APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED, TO ENSURE THAT THE REQUIREMENTS OF THE APPROVED PLANS AND SPECIFICATIONS ARE BEING COMPLETELY EXECUTED. (CBC 1702)
- 1.8 SPECIAL INSPECTION, PERIODIC: PART-TIME OR INTERMITTENT INSPECTION OF WORK OF CONSTRUCTION BY THE APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE WORK HAS BEEN OR IS BEING PERFORMED AND AT COMPLETION OF THE WORK. (CBC 1702)
- 1.9 STRUCTURAL OBSERVATION: VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM BY THE DESIGNATED STRUCTURAL OBSERVER FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM (CBC 110, 1702 & 1704.6). STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTIONS REQUIRED PER CBC 110 & 1704.
- 1.10 STRUCTURAL OBSERVER: THE STRUCTURAL OBSERVER SHALL BE THE INDIVIDUAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURAL SYSTEMS. ALTERNATIVELY, THE STRUCTURAL OBSERVER SHALL BE A PROFESSIONAL ENGINEER DESIGNATED BY EITHER THE RDP OR PROFESSIONAL ENGINEER DELEGATED RESPONSIBILITY FOR THE DESIGN OF THE STRUCTURAL SYSTEMS OF THE BUILDING. THE STRUCTURAL OBSERVER SHALL BE EMPLOYED BY THE OWNER, THE RDP, OR THE PROFESSIONAL ENGINEER DELEGATED RESPONSIBILITY FOR THE DESIGN OF THE STRUCTURAL SYSTEMS OF THE BUILDING.
- 1.11 PROJECT INSPECTOR: THE PROJECT INSPECTOR SHALL BE THE INDIVIDUAL APPROVED BY THE ENFORCEMENT AGENCY AS THE ON-SITE INSPECTOR. THE PROJECT INSPECTOR SHALL ACT UNDER THE GENERAL DIRECTION OF THE RDP AND UNDER THE SUPERVISION OF THE ENFORCEMENT AGENCY. THE PROJECT INSPECTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL WORK INCLUDED IN THE CONSTRUCTION CONTRACT, EXCEPT FOR THE WORK THAT MUST BE INSPECTED BY AN APPROVED SPECIAL INSPECTOR. (CAC 4-207)

2 GENERAL REQUIREMENTS AND PREPARATION

- 2.1 THIS INSPECTION AND OBSERVATION PROGRAM HAS BEEN DEVELOPED WITH THE UNDERSTANDING THAT THE OWNER SHALL DESIGNATE A RESPONSIBLE INDIVIDUAL OR FIRM, ACCEPTABLE TO THE RDP AND BUILDING OFFICIAL, TO OVERSEE AND COORDINATE THE IMPLEMENTATION OF THE PROGRAM, AND MONITOR THE SPECIAL INSPECTOR ACTIVITIES ON THE JOB SITE TO ASSURE THAT THE SPECIAL INSPECTORS PERFORM THEIR DUTIES, AS DESCRIBED HEREIN.
- 2.2 THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS, INSPECTION AGENCIES OR FIRMS, APPROVED BY THE BUILDING OFFICIAL AND RDP, TO PROVIDE SPECIAL INSPECTION DURING CONSTRUCTION ON THE TYPES OF WORK REQUIRING SPECIAL INSPECTION (CBC 1704.2).
- 2.3 THE OWNER OR ITS DESIGNEE SHALL EMPLOY MATERIALS TESTING LABORATORY/ TESTING AGENCY AS APPROVED BY THE RDP AND THE BUILDING OFFICIAL TO PERFORM TESTS SPECIFIED IN THIS SECTION.
- 2.4 THE OWNER SHALL EMPLOY A PROJECT INSPECTOR APPROVED BY THE RDP AND THE BUILDING OFFICIAL TO PROVIDE INSPECTION DURING CONSTRUCTION OF ALL WORK. (CAC 4-207)

3 TESTING AND APPROVALS

- 3.1 THE APPROVED AGENCY SHALL BE AN ESTABLISHED AND RECOGNIZED AGENCY UNDER THE RESPONSIBLE CHARGE OF A LICENSED PROFESSIONAL ENGINEER, REGULARLY ENGAGED IN CONDUCTING TESTS OR FURNISHING INSPECTION SERVICES, AND APPROVED BY THE RDP AND THE BUILDING OFFICIAL.
- 3.2 THE APPROVED AGENCY RETAINED FOR CONDUCTING TESTS SHALL NOT BE EMPLOYED DIRECTLY OR INDIRECTLY BY THE CONTRACTOR.
- 3.3 THE APPROVED AGENCY SHALL HAVE ADEQUATE EQUIPMENT AND PERSONNEL TO MEASURE, EXAMINE, TEST, CALIBRATE OR OTHERWISE DETERMINE THE CHARACTERISTICS OR PERFORMANCE OF CONSTRUCTION MATERIALS AND VERIFY CONFORMANCE WITH CONSTRUCTION DOCUMENTS AND APPLICABLE STANDARDS. (CBC 1703.1)
- A. ALL EQUIPMENT NECESSARY TO PERFORM REQUIRED TESTS SHALL BE PERIODICALLY CALIBRATED PER THE REFERENCED STANDARDS AND AS RECOMMENDED BY THE MANUFACTURER.
 - B. THE APPROVED AGENCY SHALL EMPLOY EXPERIENCED PERSONNEL, EDUCATED IN CONDUCTING, SUPERVISING AND EVALUATING TESTS, AND/OR INSPECTIONS.
- 3.4 APPROVAL OF ANY MATERIAL, APPLIANCE, EQUIPMENT, SYSTEM OR METHOD OF CONSTRUCTION MEETING THE REQUIREMENTS OF THIS CODE SHALL BE IN WRITING. A RECORD OF SUCH APPROVAL SHALL BE KEPT ON FILE IN THE BUILDING OFFICIAL'S OFFICE. SUCH APPROVAL RECORDS SHALL ALSO INCLUDE THE CONDITIONS AND LIMITATIONS OF THE APPROVAL.(CBC 1703.2, 1703.3)
- 3.5 THE APPROVED AGENCY SHALL MAINTAIN A RECORD OF TESTS PERFORMED IN SUFFICIENT DETAIL TO VERIFY COMPLIANCE WITH THE TEST STANDARD. (CBC 1703.5.1)
- 3.6 TEST REPORTS BY THE APPROVED AGENCY SHALL BE PROVIDED TO THE RDP AND THE BUILDING OFFICIAL TO DETERMINE THAT THE CONSTRUCTION MATERIALS COMPLY WITH APPLICABLE CODE REQUIREMENTS. (CBC 1703.2)

4 SPECIAL INSPECTIONS

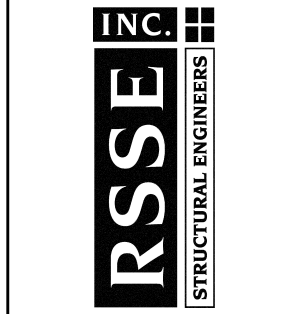
- 4.1 THE SPECIAL INSPECTOR OR INSPECTION AGENCY RETAINED FOR CONDUCTING INSPECTIONS SHALL NOT BE EMPLOYED DIRECTLY OR INDIRECTLY BY THE CONTRACTOR.
- 4.2 THE SPECIAL INSPECTOR SHALL NOTIFY THE BUILDING OFFICIAL PRIOR TO INSPECTION COMMENCEMENT, DOCUMENT INSPECTION RECORDS AND FURNISH THEM TO THE BUILDING OFFICIAL AND TO THE RDP IN RESPONSIBLE CHARGE. (CBC 1704.2.4).
- 4.3 THE INSPECTION REPORT SHALL INDICATE THAT THE WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWINGS:
- A. PROJECT ADDRESS.
 - B. PERMIT NUMBER AND THE AUTHORITIES HAVING JURISDICTION.
 - C. DATE OF INSPECTION.
 - D. DESCRIPTION OF INSPECTIONS PERFORMED, APPLICABLE STANDARD, AND LOCATION (BUILDING ID, GRID LINES, AND ELEVATION OR FLOOR LEVEL).
 - E. STATEMENT THAT THE WORK INSPECTED CONFORMS TO APPROVED PLANS AND SPECIFICATIONS.
 - F. LIST OF DISCREPANCIES, UNRESOLVED DEVIATIONS, AND EXCLUSIONS OR ADDITIONS TO APPROVED PLANS AND SPECIFICATIONS AUTHORIZED BY THE RDP.
 - G. CORRECTIONS TO PREVIOUSLY LISTED ITEMS.
 - H. LIST OF TEST SPECIMENS TAKEN, TEST RESULTS AND MILL CERTIFICATIONS RECEIVED.
- 4.4 ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE BUILDING OFFICIAL AND TO THE RDP (CBC 1704.2.4)
- 4.5 TEST AND INSPECTION REPORTS SHALL BE SUBMITTED WITHIN FIVE (5) WORKING DAYS OF THE INSPECTION OR THE OBTAINING THE RESULTS OF THE TEST.
- 4.6 DEVIATION LOG: EACH SPECIAL INSPECTOR SHALL MAINTAIN A LOG OF WORK THAT DOES NOT MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. THIS DEVIATION LOG SHALL INCLUDE REFERENCE TO THE ORIGINAL TEST, INSPECTION, OR OBSERVATION REPORT, THE SUBSEQUENT DATES OF RE-INSPECTION OR RE-TESTING, AND THE DATE THE CORRECTED WORK WAS VERIFIED TO BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. THE DEVIATION LOG SHALL BE UPDATED DAILY AND SUBMITTED AT MONTHLY INTERVALS. (CBC 1704.2.4)
- 4.7 UPON COMPLETION OF THE PROJECT, EACH SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT TO THE RDP AND THE BUILDING OFFICIAL, STATING THAT THE WORK REQUIRING SPECIAL INSPECTIONS WAS COMPLETED IN SUBSTANTIAL CONFORMANCE TO THE APPROVED PLANS, SPECIFICATIONS AND THE APPLICABLE PROVISIONS OF THE CODE. ANY WORK NOT IN COMPLIANCE SHALL BE DESCRIBED IN THE REPORT (CBC 1704.2.4, ASCE 7-10 SECTION 11A.4).

5 STRUCTURAL OBSERVATION

- 5.1 THE PURPOSE OF STRUCTURAL OBSERVATION IS TO OBSERVE IF THE STRUCTURAL SYSTEM IS CONSTRUCTED IN GENERAL CONFORMANCE WITH CONSTRUCTION DOCUMENTS. (CBC 1702)
- 5.2 STRUCTURAL OBSERVATION CONSISTING OF VISIBLE OBSERVATION OF THE STRUCTURAL SYSTEM, INCLUDING BUT NOT LIMITED TO THE ELEMENTS AND CONNECTIONS, FOR GENERAL CONFORMANCE TO THE APPROVED STRUCTURAL PLANS AND SPECIFICATIONS SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD AT SIGNIFICANT REPRESENTATIVE CONSTRUCTION STAGES AS DETERMINED BY THE STRUCTURAL ENGINEER OF RECORD.
- 5.3 OBSERVED DEFICIENCIES:
- 5.3.1 OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING.
- 5.3.2 THE CONTRACTOR SHALL RESOLVE ALL IDENTIFIED DEFICIENCIES TO THE SATISFACTION OF THE STRUCTURAL OBSERVER.
- 5.3.3 AT THE CONCLUSION OF THE PROJECT, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED (1704.6).



REGISTERED PROFESSIONAL ENGINEER
2568
09-29-20
09-29-22
STATE OF CALIFORNIA
EXPIRES 09-29-22



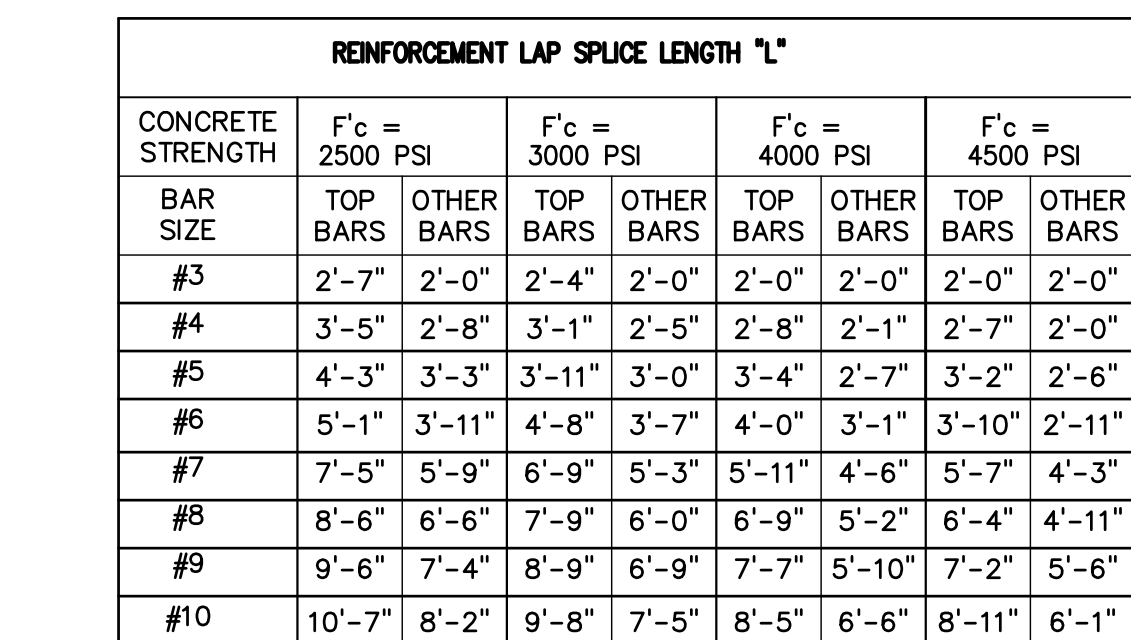
C³ Solutions Group, Inc.
14000 Wilshire Blvd., Suite 1000
Beverly Hills, CA 90210
Tel: 310.274.8888
Fax: 310.274.8889
www.c3solutions.com

ORANGE COUNTY
FIRE AUTHORITY



OCFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

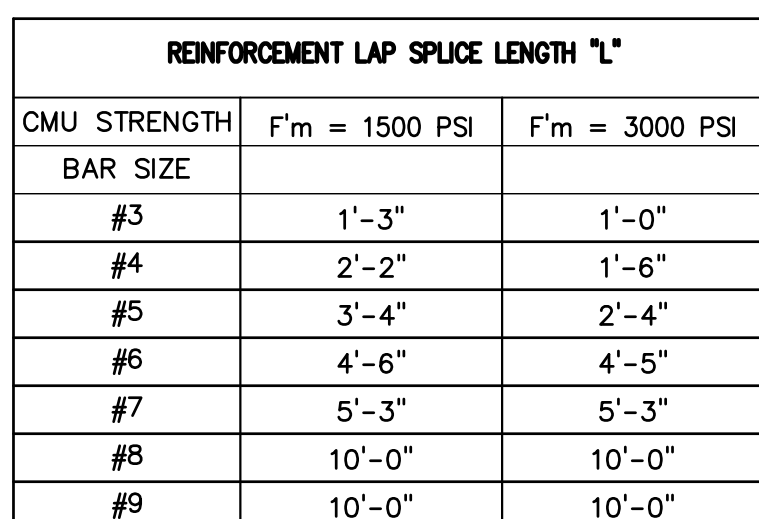
STRUCTURAL GENERAL NOTES
SCALE: N.T.S.
May 20, 2020



NOTES:

1. THE LAP SPICE LENGTH ARE TO BE MULTIPLIED BY THE FACTOR(S) LISTED BELOW.
2. WHERE LIGHTWEIGHT AGGREGATE CONCRETE IS USED, INCREASE LAP SPICE LENGTH BY 30%.
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
4. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
5. SPLICES IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.

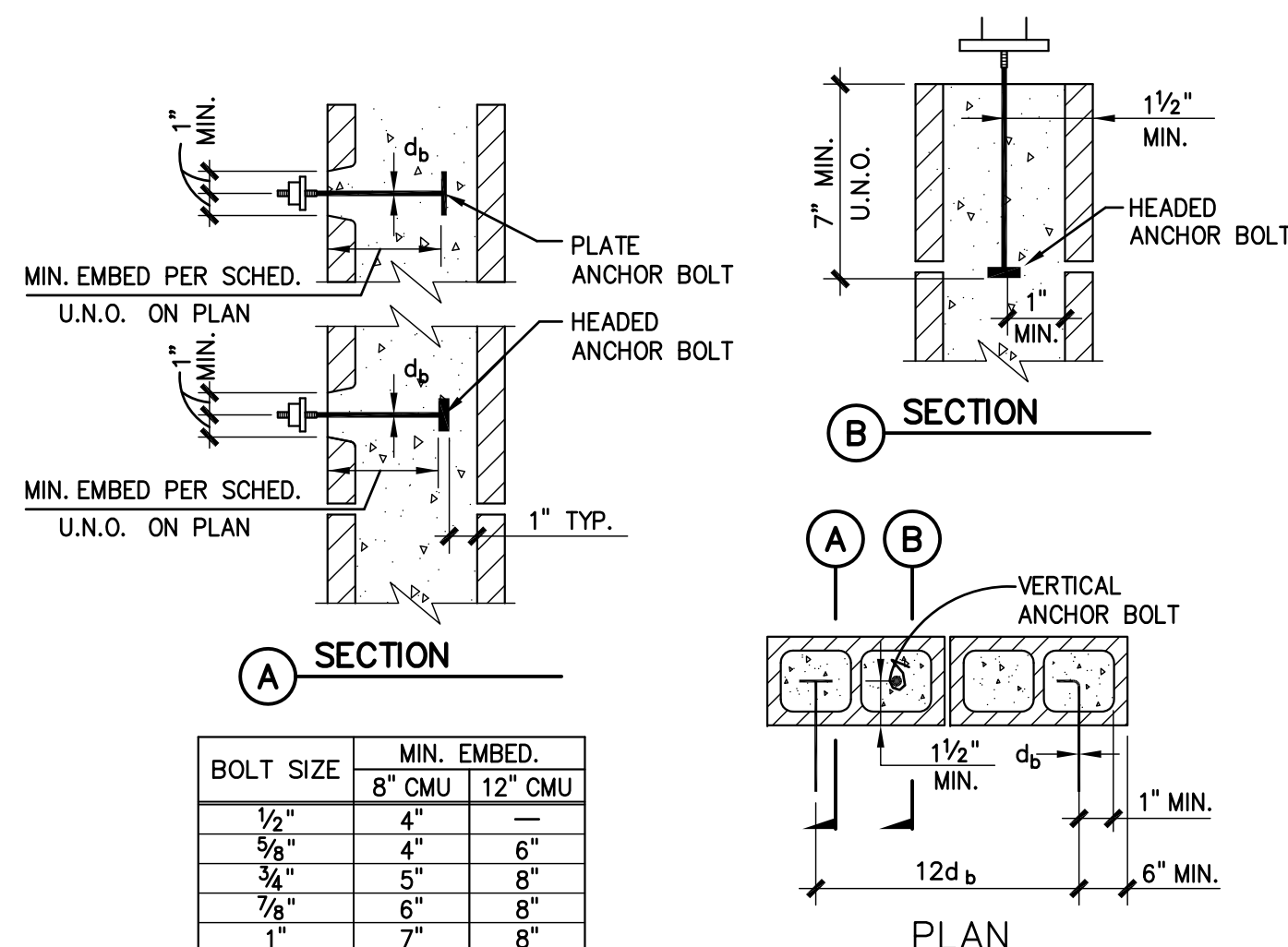
18 REBAR OFFSET AND LAP SPLICE
IN CONCRETE - TYPICAL



NOTES:

1. THE LAP SPICE LENGTH ARE TO BE MULTIPLIED BY THE FACTOR(S) LISTED BELOW.
2. DEVELOPMENT LENGTH OF EPOXY-COATED BARS SHALL BE TAKEN AS 150 PERCENT OF THE SCHEDULED LENGTH.
3. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
4. SPLICES IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.
5. LAP SPICE IN MASONRY SHALL BE MIN. 48 BAR DIA.

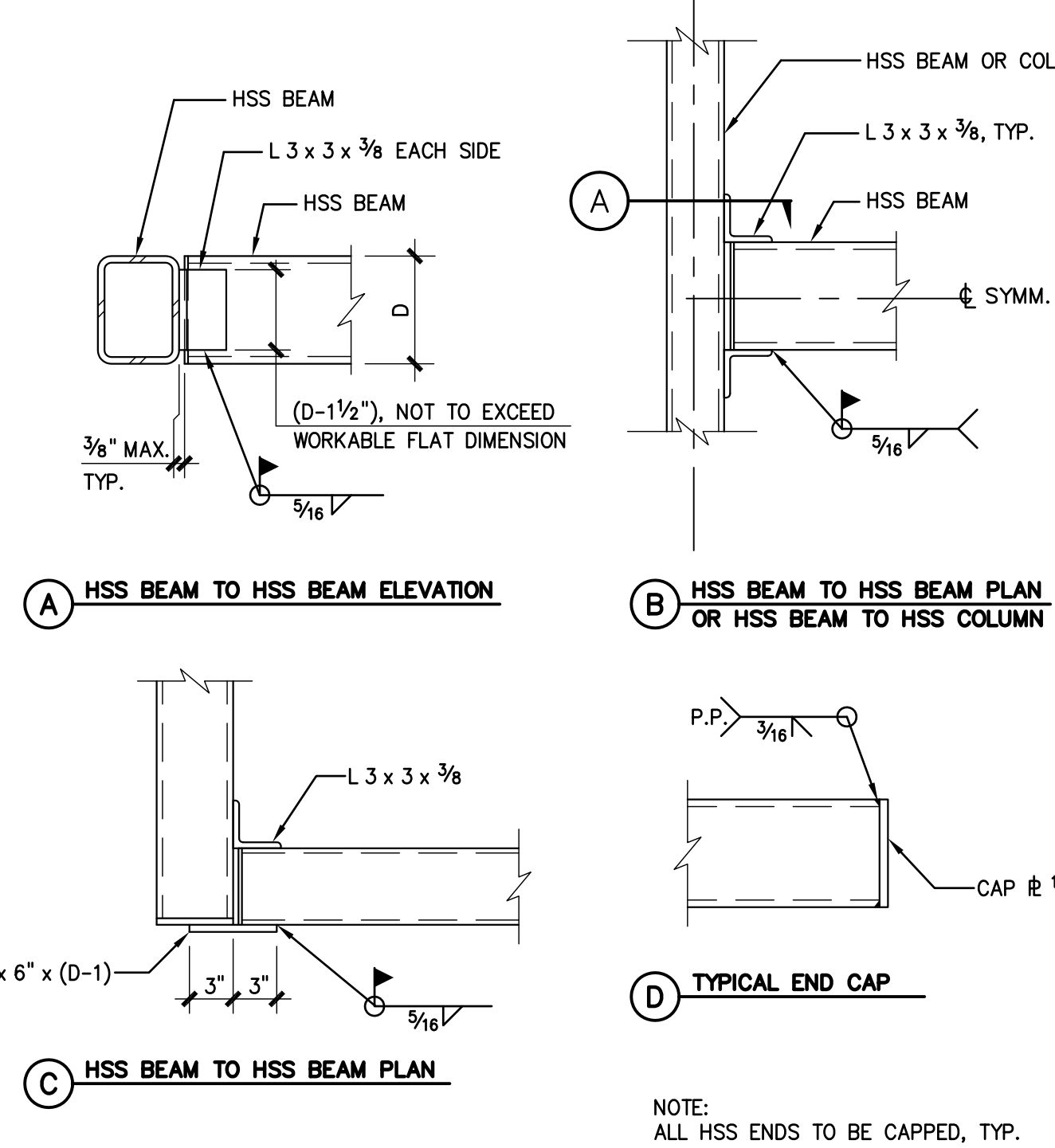
19 MASONRY LAP SPLICE
TYPICAL



NOTE:

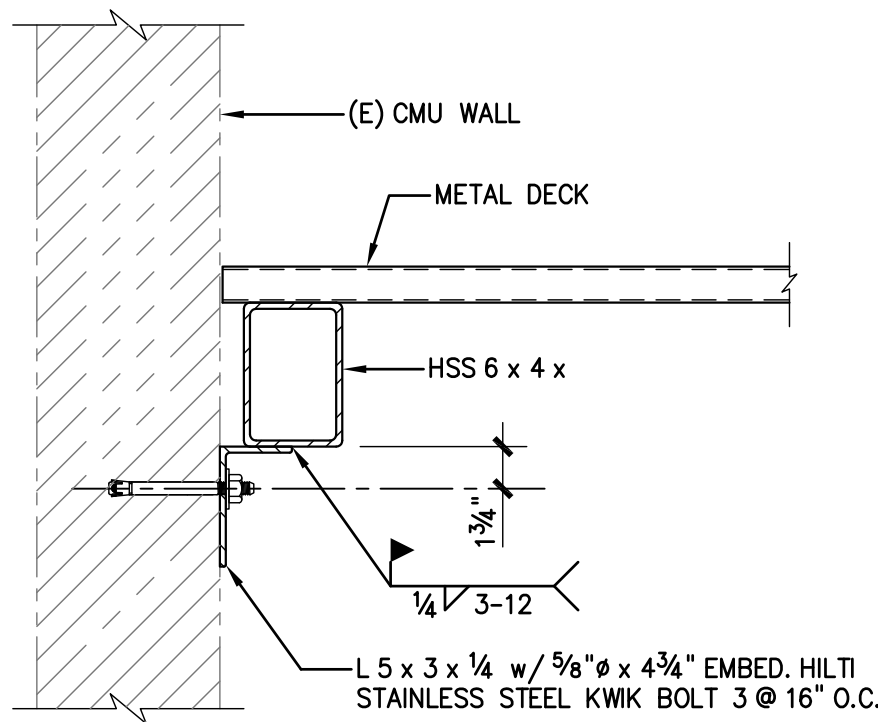
1. MINIMUM BOLT SPACING SHALL BE 12 BOLT DIAMETER WITH A MINIMUM EDGE DISTANCE OF 6 DIAMETERS WITH A MINIMUM OF 6" TO END OF WALL.
2. STAGGER ANCHOR BOLT SPACING WHEN BOLTS OCCUR ON BOTH SIDES OF WALL.

6 TYPICAL CMU ANCHOR BOLT (A.B.) LAYOUT

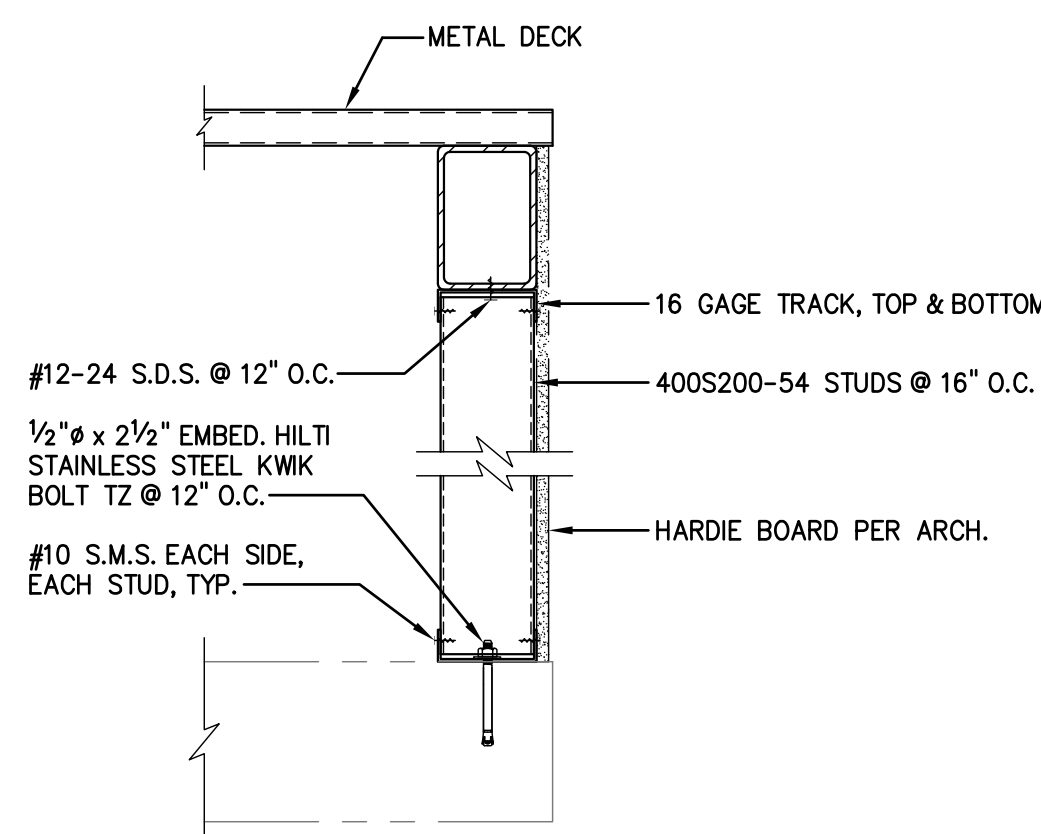


1 HSS TO HSS CONNECTION
TYPICAL

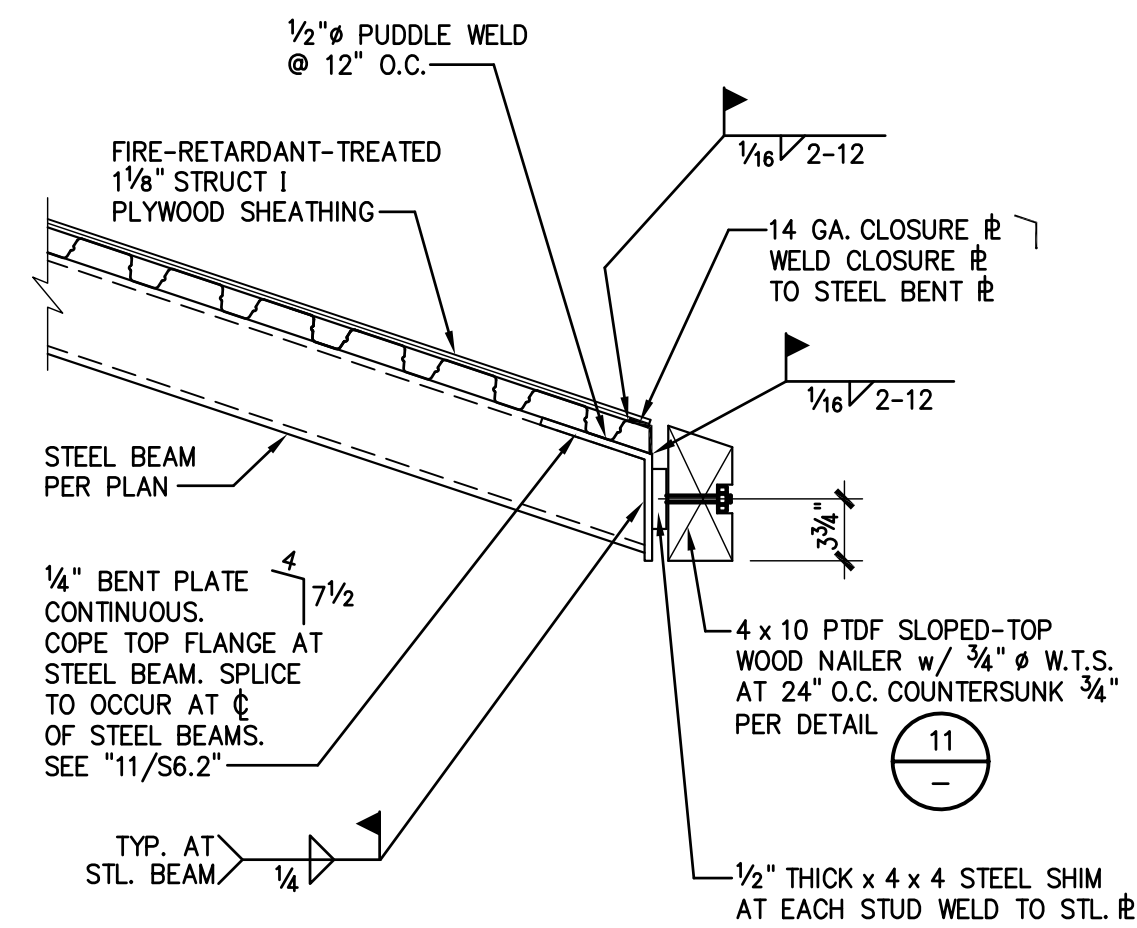
NOTE:
ALL HSS ENDS TO BE CAPPED, TYP



20 SECTION

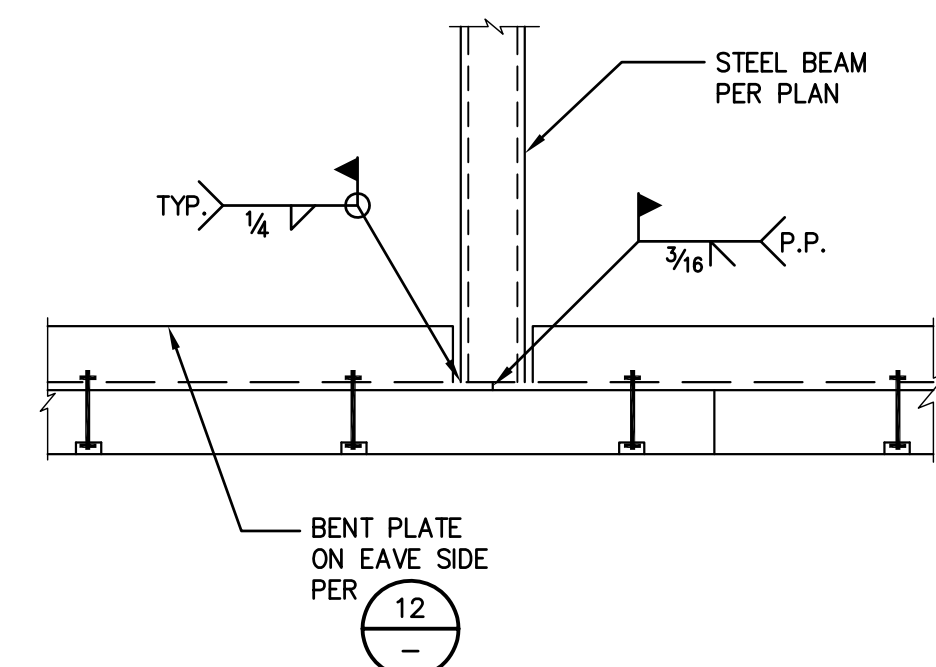


16 SECTION



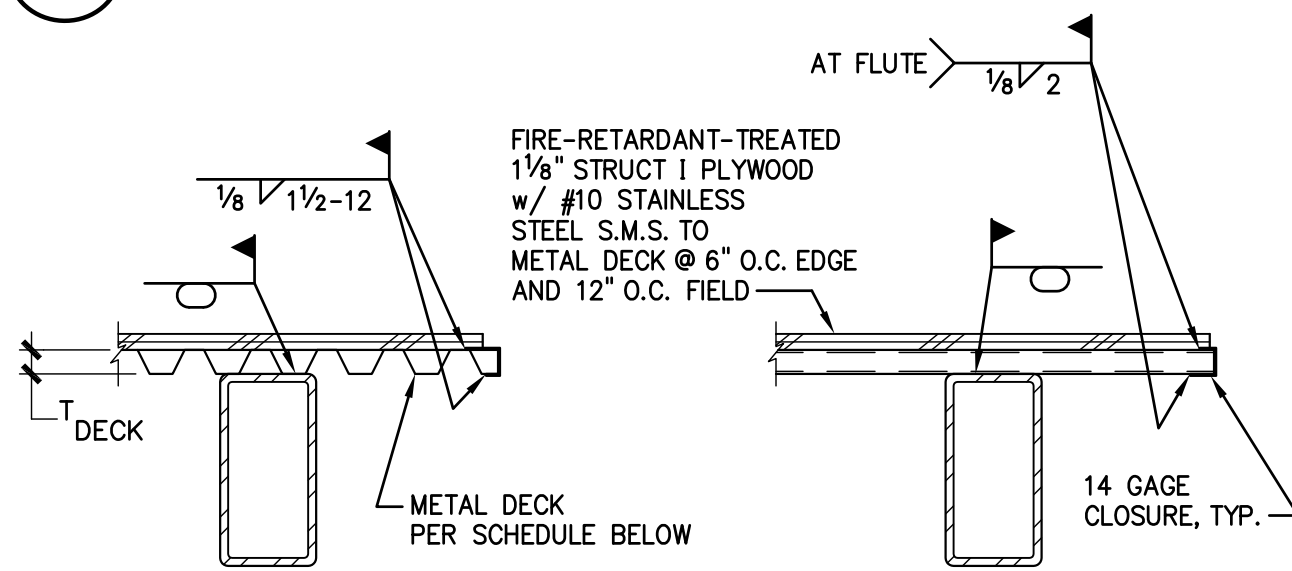
12 ROOF EDGE

10 STEEL DECK SCHEDULE AND NOTES TYPICAL



11 EDGE BENT PLATE TO RAFTER CONNECTION

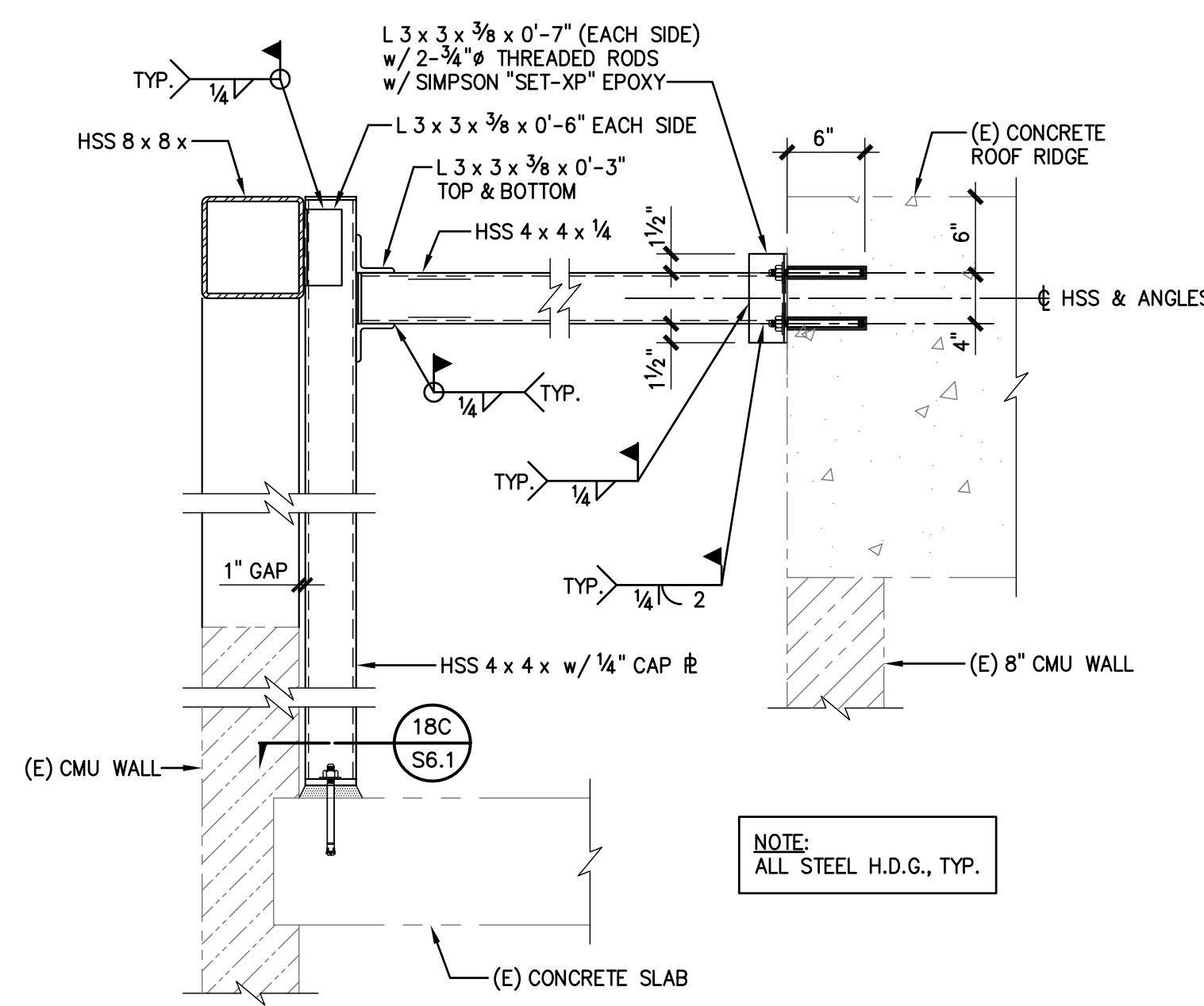
9 NEW STUD WALL SECTION



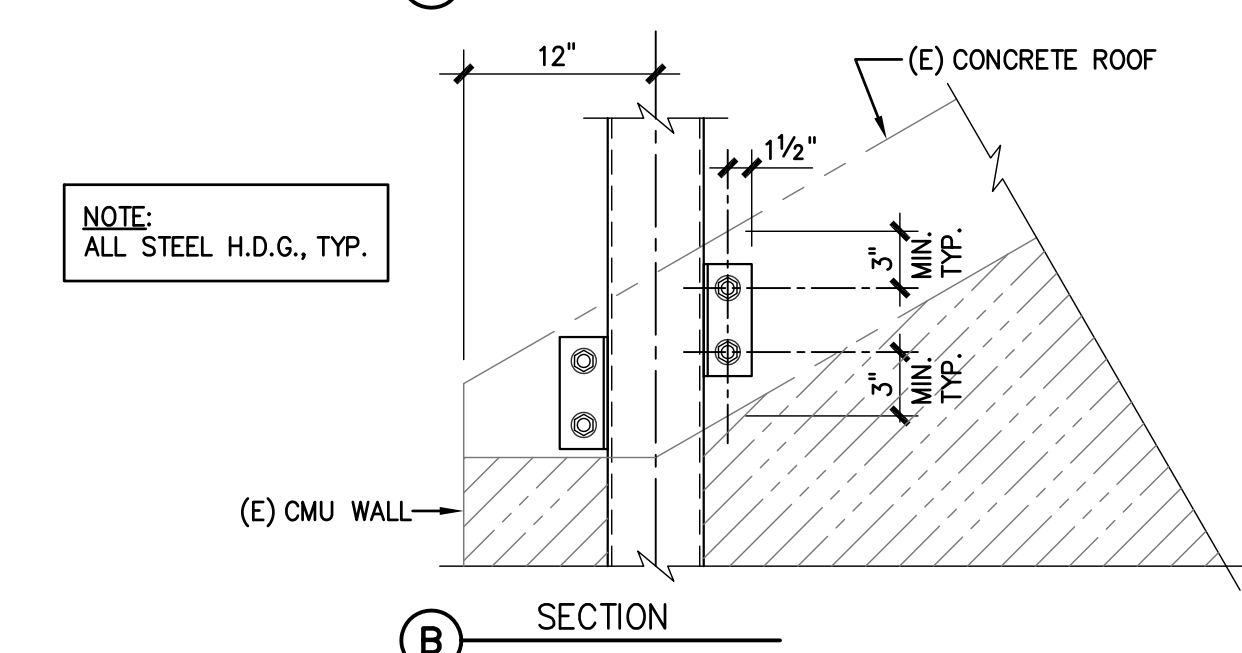
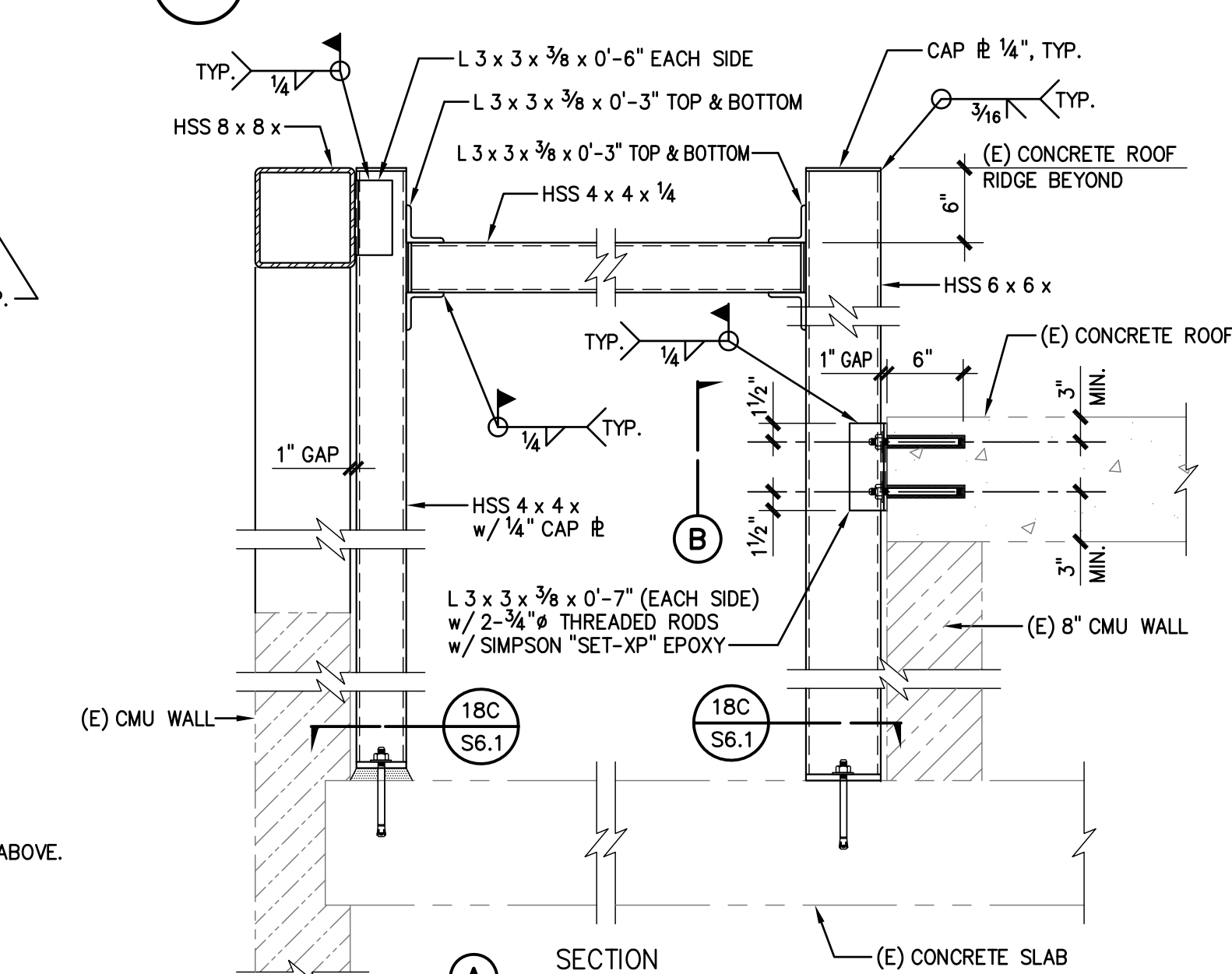
METAL DECK				DECK WELD ATTACHMENT		
TYPE	LOCATION	DECK	DECK GAUGE	AT SUPPORT	AT PARALLEL SUPPORT	AT SIDE LAPS
A	ROOF	HSB-36 NON-VENTED G90	1 1/2"	16	7 WELDS PER 36" SHEET	1/2" WELDS @ 12" O.C.

- NOTES:
1. WELD ATTACHMENT FOR STEEL DECK AT SUPPORT MEMBER SHALL BE ARC SEAM OR SPOT (PUDDLE) WELDS AND SHALL HAVE AN EFFECTIVE FUSION AREA TO SUPPORTING MEMBER AT LEAST EQUIVALENT TO 3/8 INCH BY 1 INCH LONG OR 1/2" IN DIAMETER, RESPECTIVELY. TWO LINES OF WELD REQUIRED AT ALL DRAG LINES FULL LENGTH OR WIDTH OF BUILDING.
 2. WELD ATTACHMENT FOR STEEL DECK PANEL SEAMS AT SIDE LAPS WHERE SPECIFIED SHALL BE SEAM WELDS WITH A MINIMUM LENGTH OF 1 1/2" AT SPACING PER SCHEDULE ABOVE.
 3. DECKING SHALL BE CONTINUOUS OVER 3 OR MORE SUPPORTS WHEREVER POSSIBLE. OTHERWISE PROVIDE SHORING AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS. SPLICES SHALL BE LOCATED OVER SUPPORTS.
 4. STEEL DECKING TO BE AS NOTED: VERO DECKS PER I.C.C. REPORT No. ER-2078P WITH MINIMUM SECTION PROPERTIES PER FOOT OF WIDTH AS FOLLOWS:

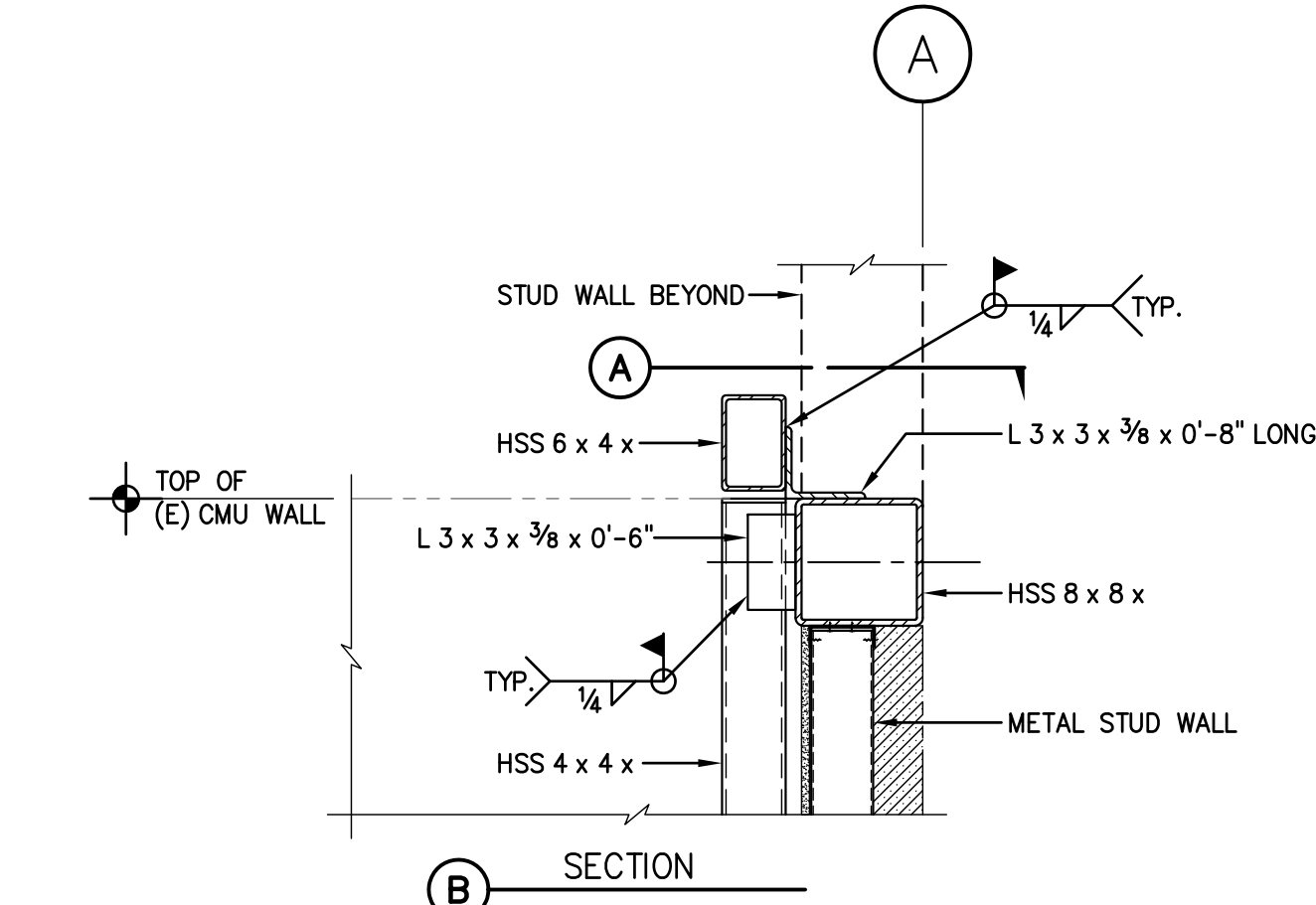
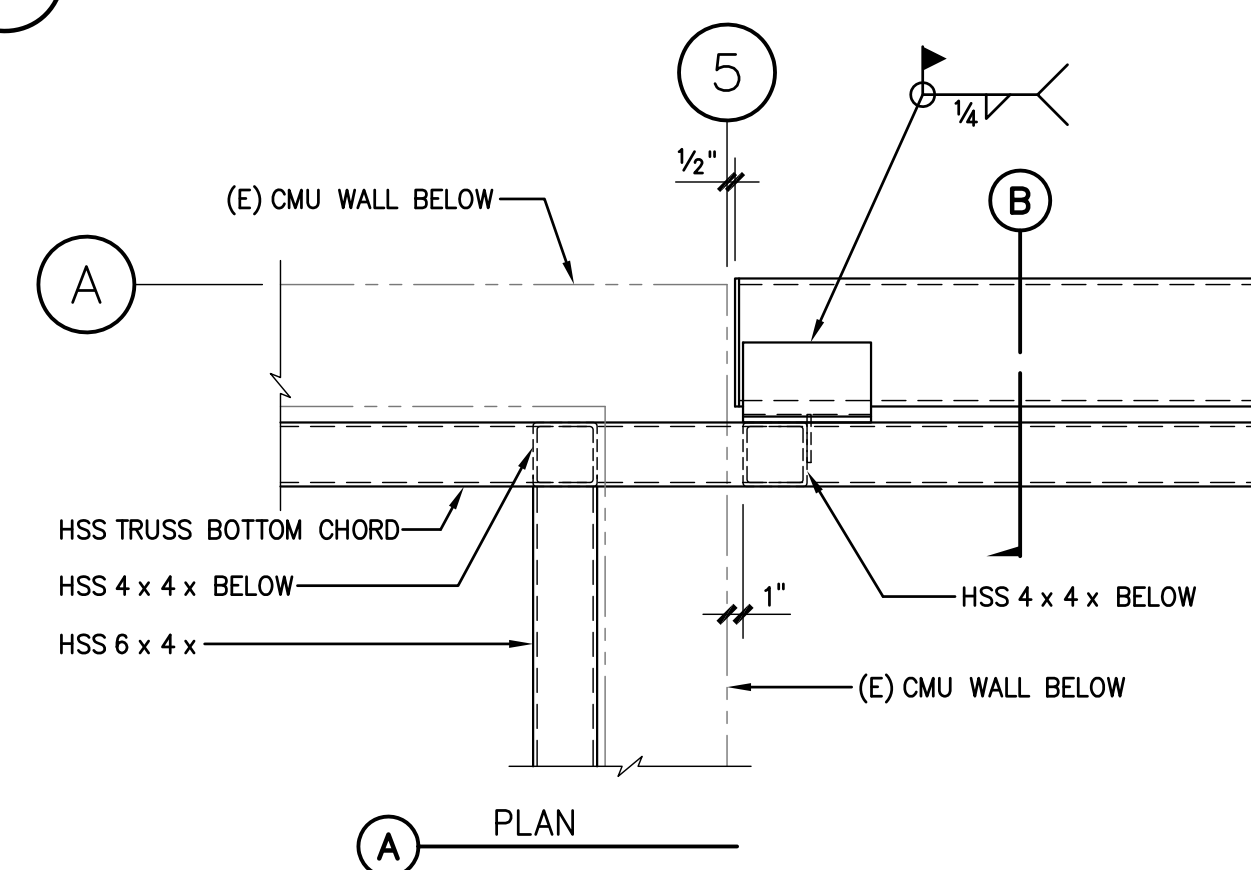
DECK TYPE	GAUGE	I(in ⁴)	+S(in ³)	-S(in ³)
HSB-36	16	0.381	0.399	0.410



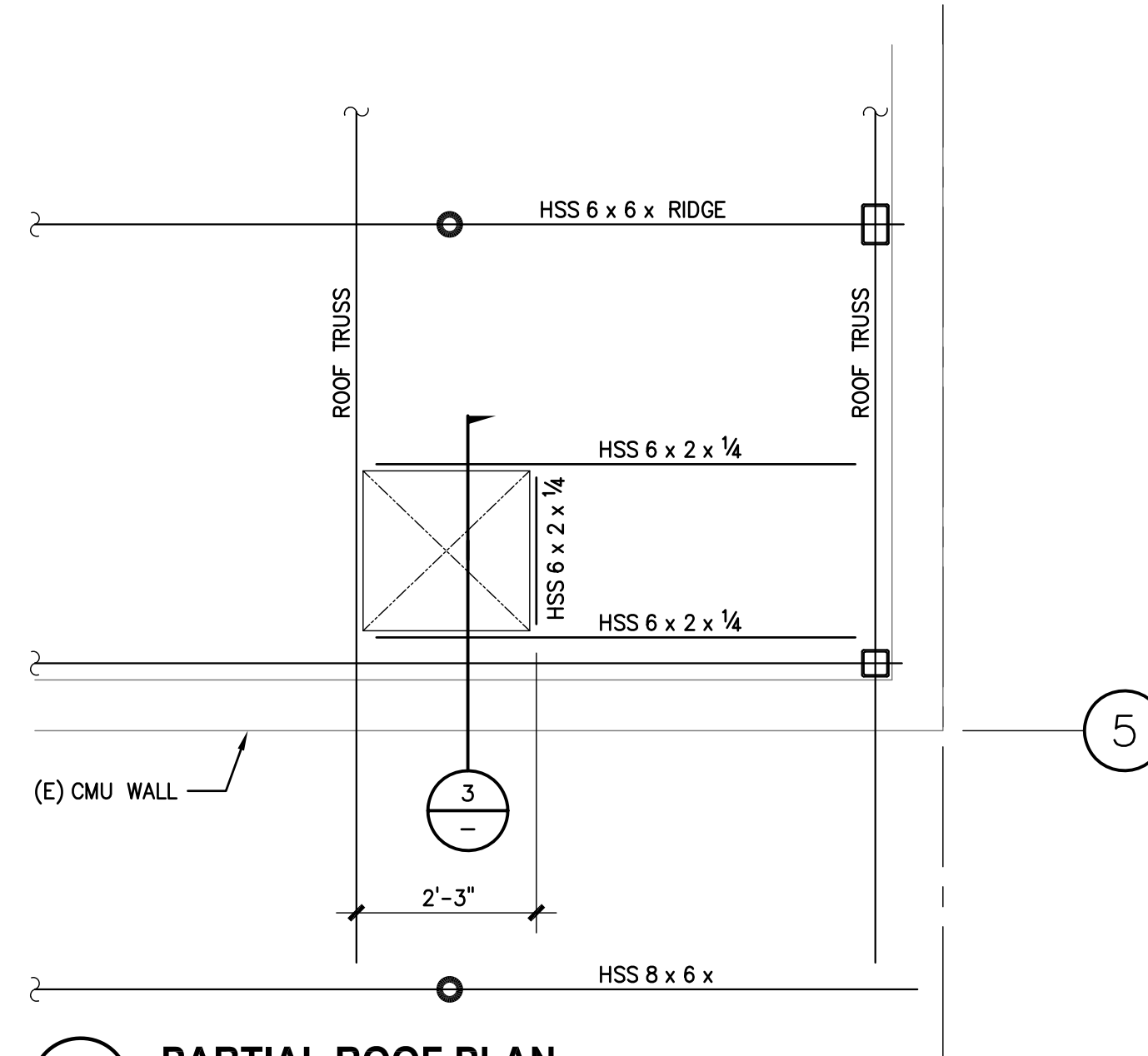
5 WALL BRACING SECTION



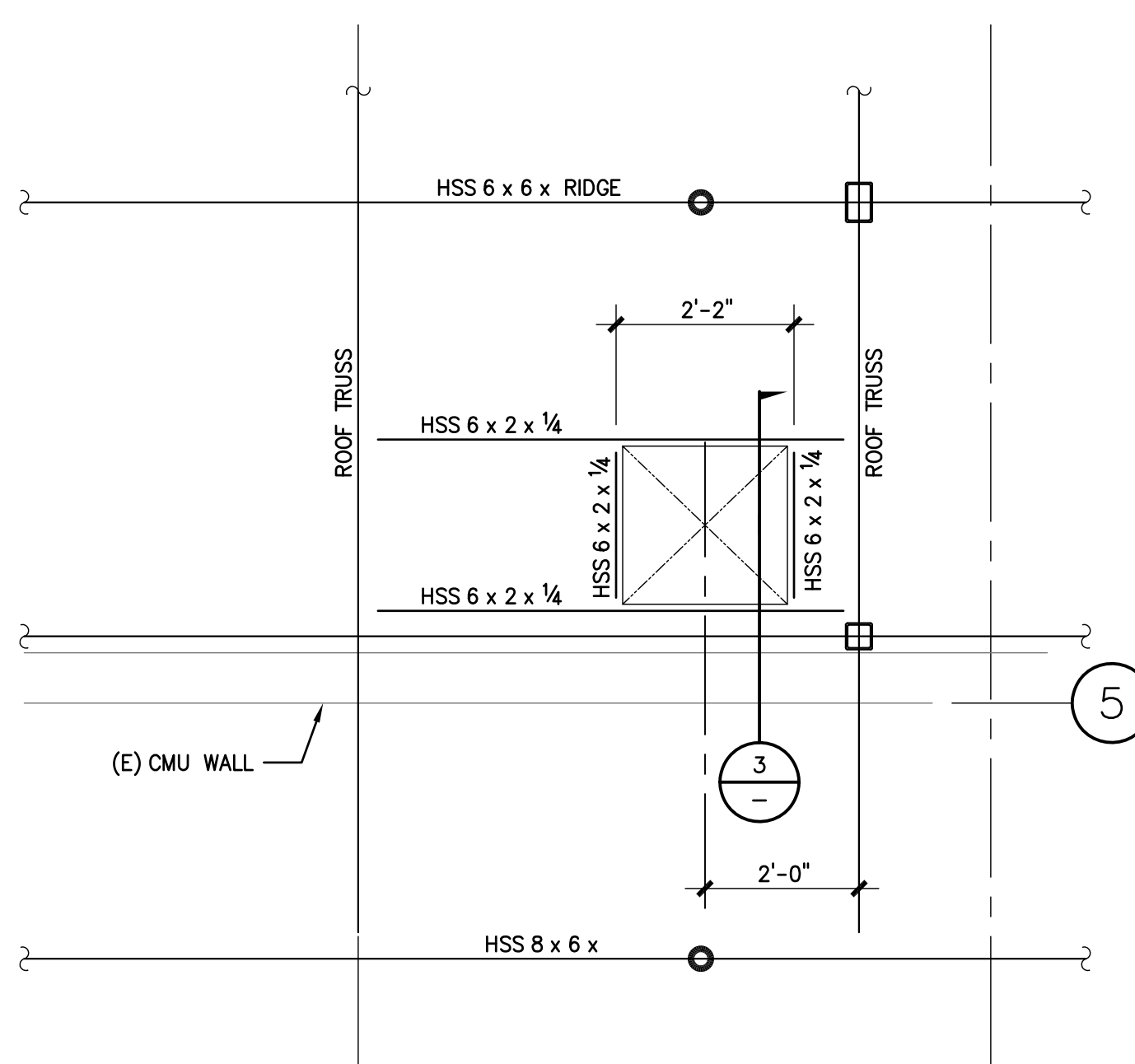
6 WALL BRACING SECTION



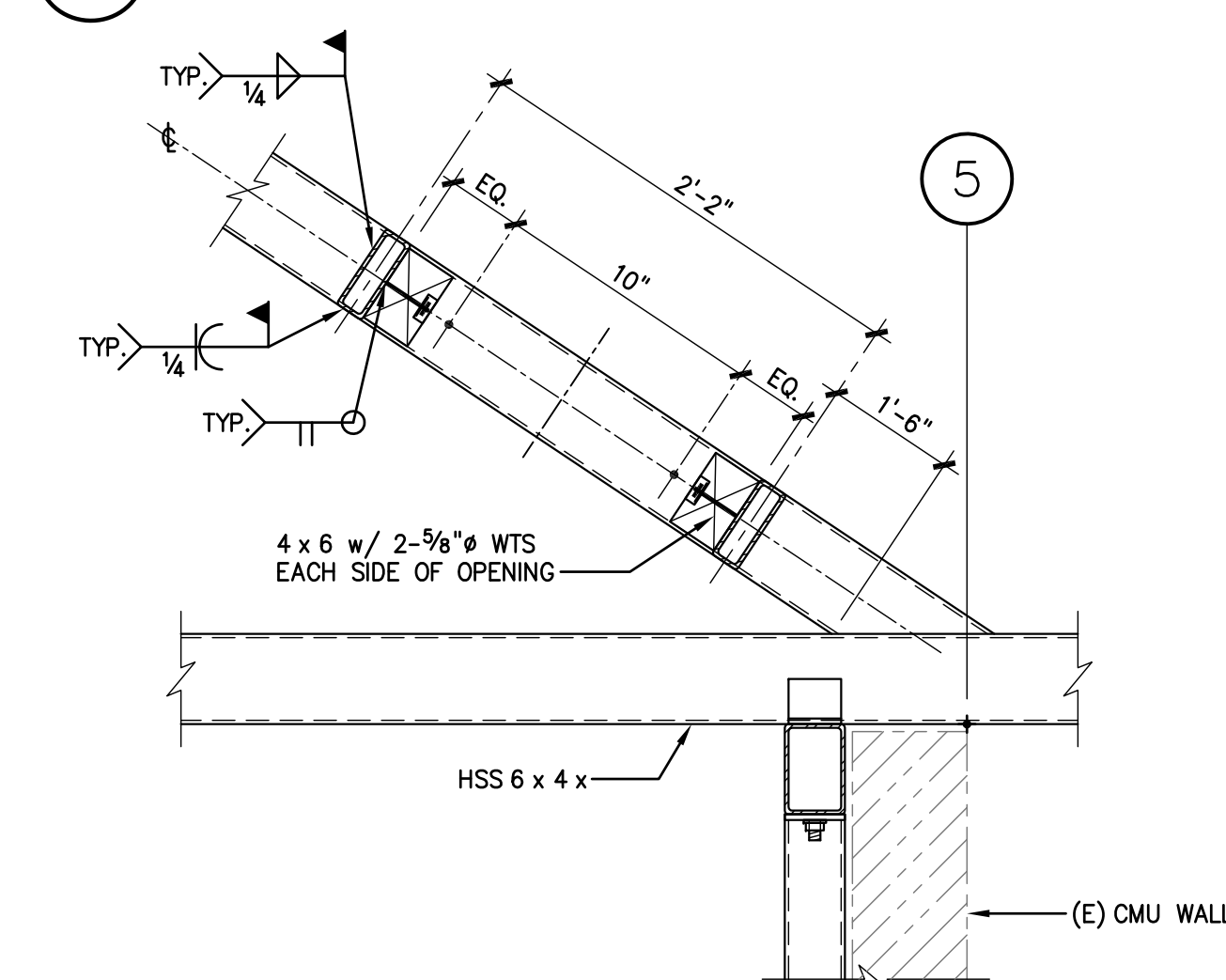
8 HSS 8x8x TO TRUSS CONNECTION



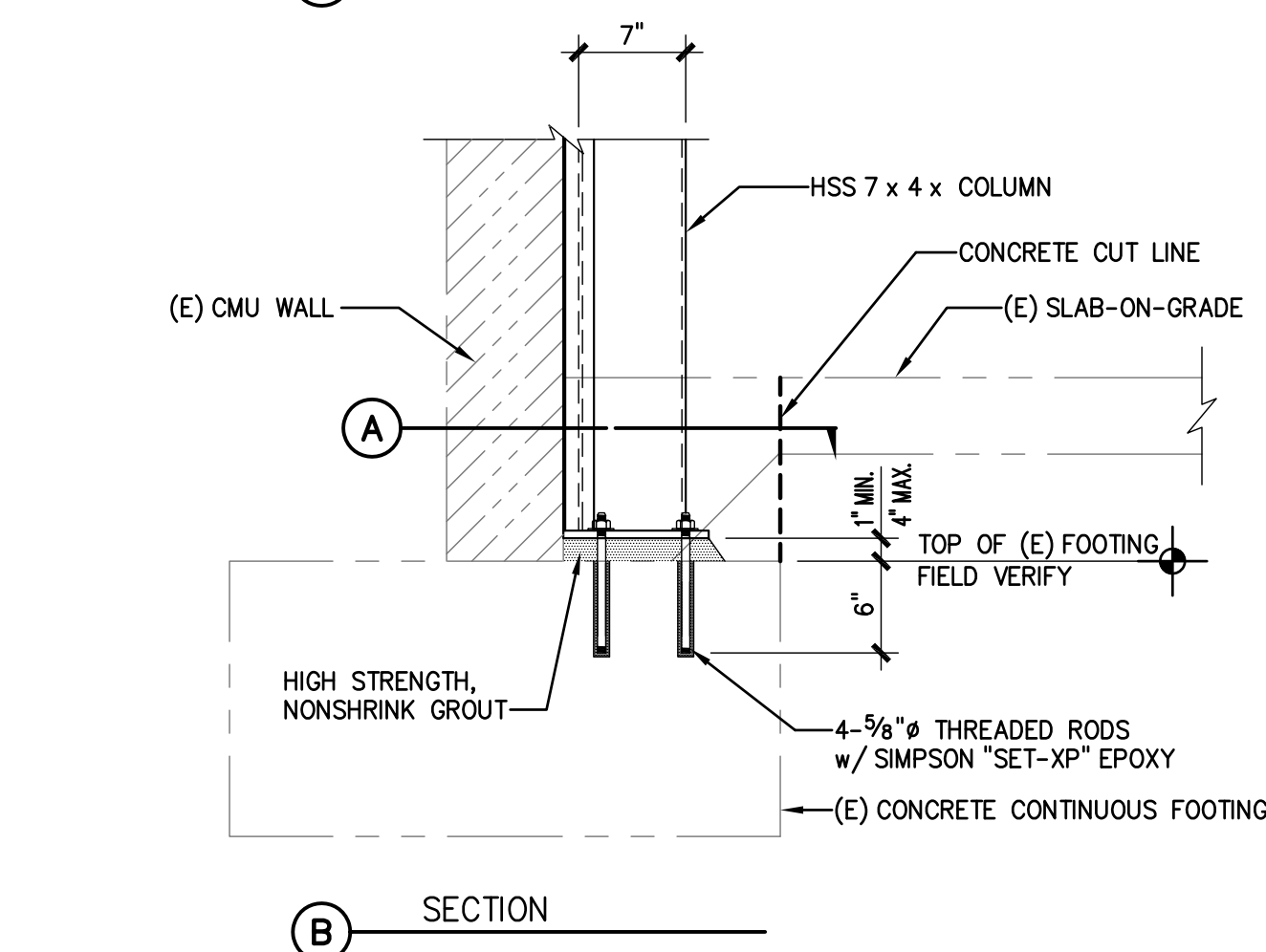
1 PARTIAL ROOF PLAN

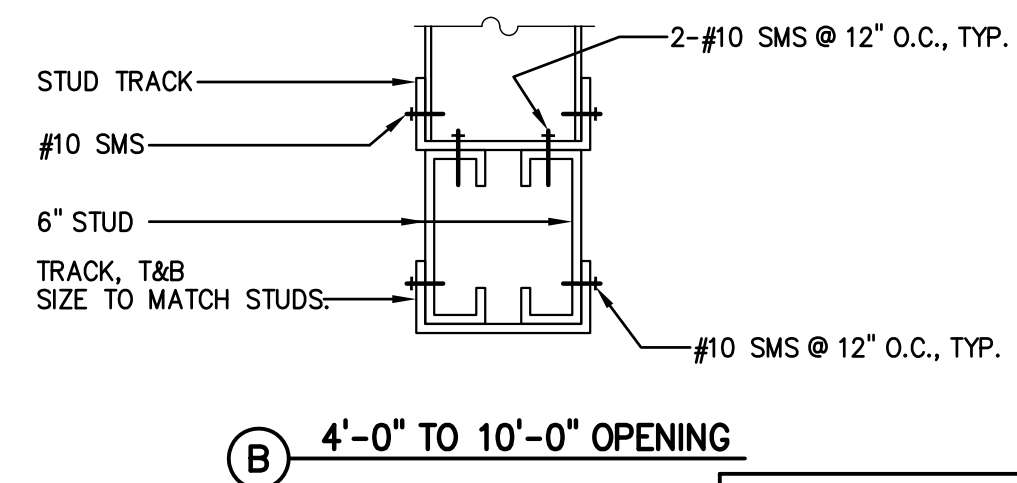
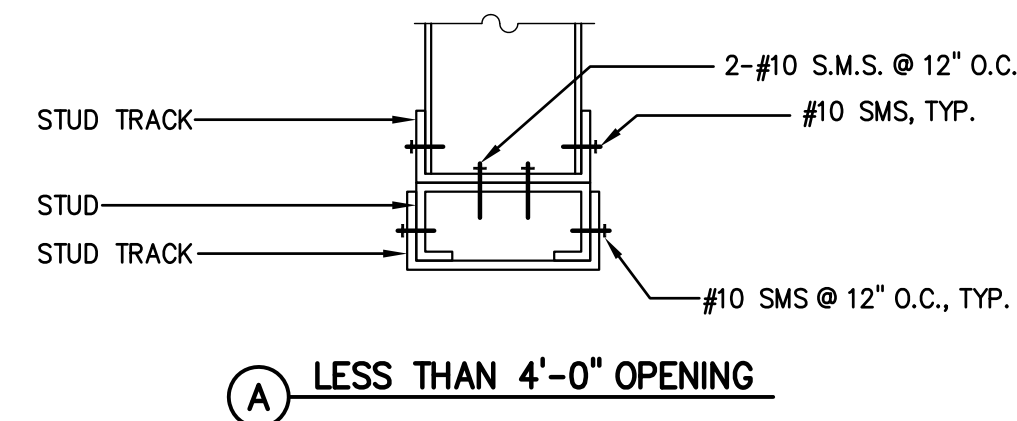


2 PARTIAL ROOF PLAN

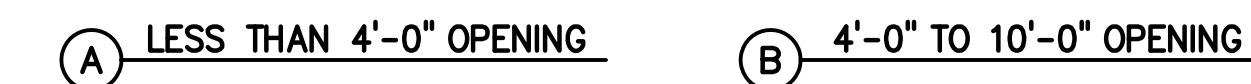
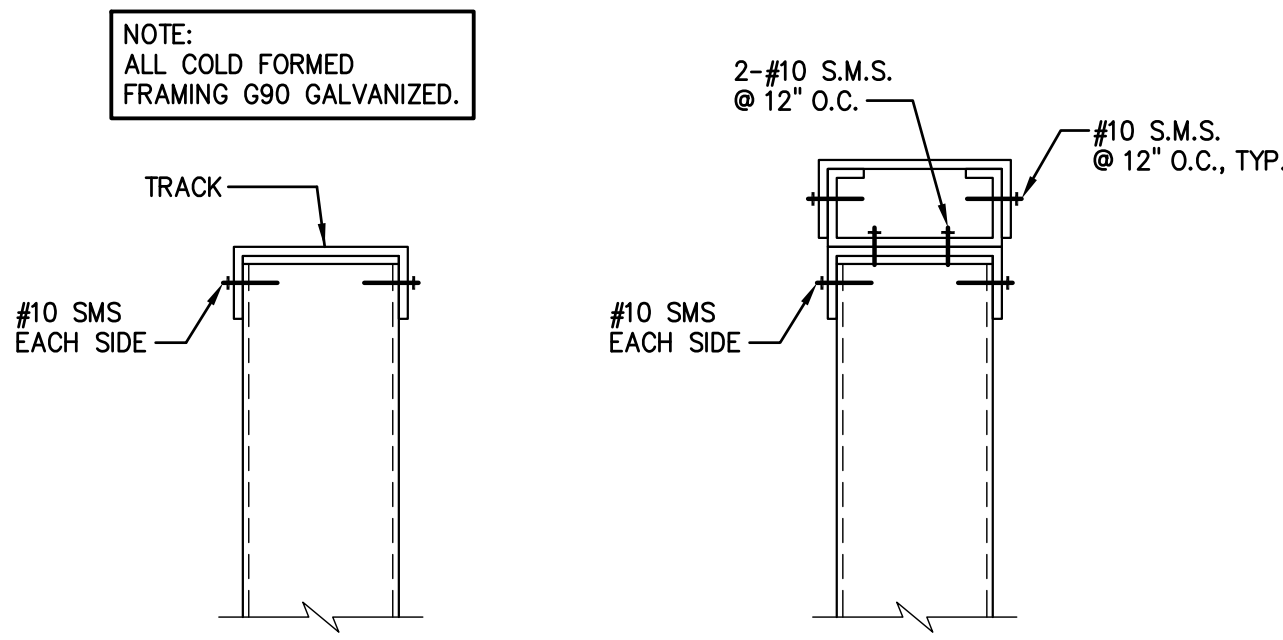


3 TRUSS SECTION BREACH PROP

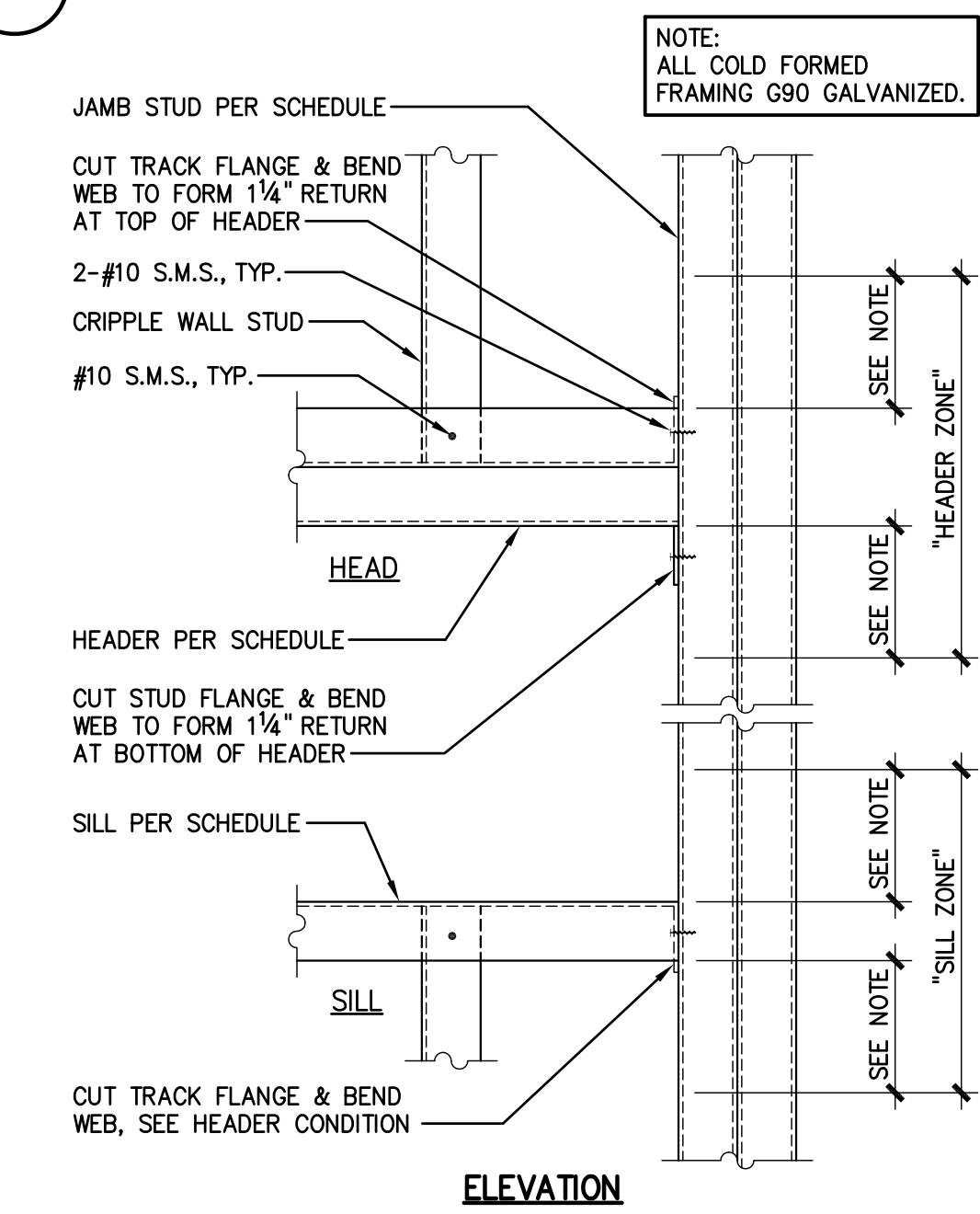




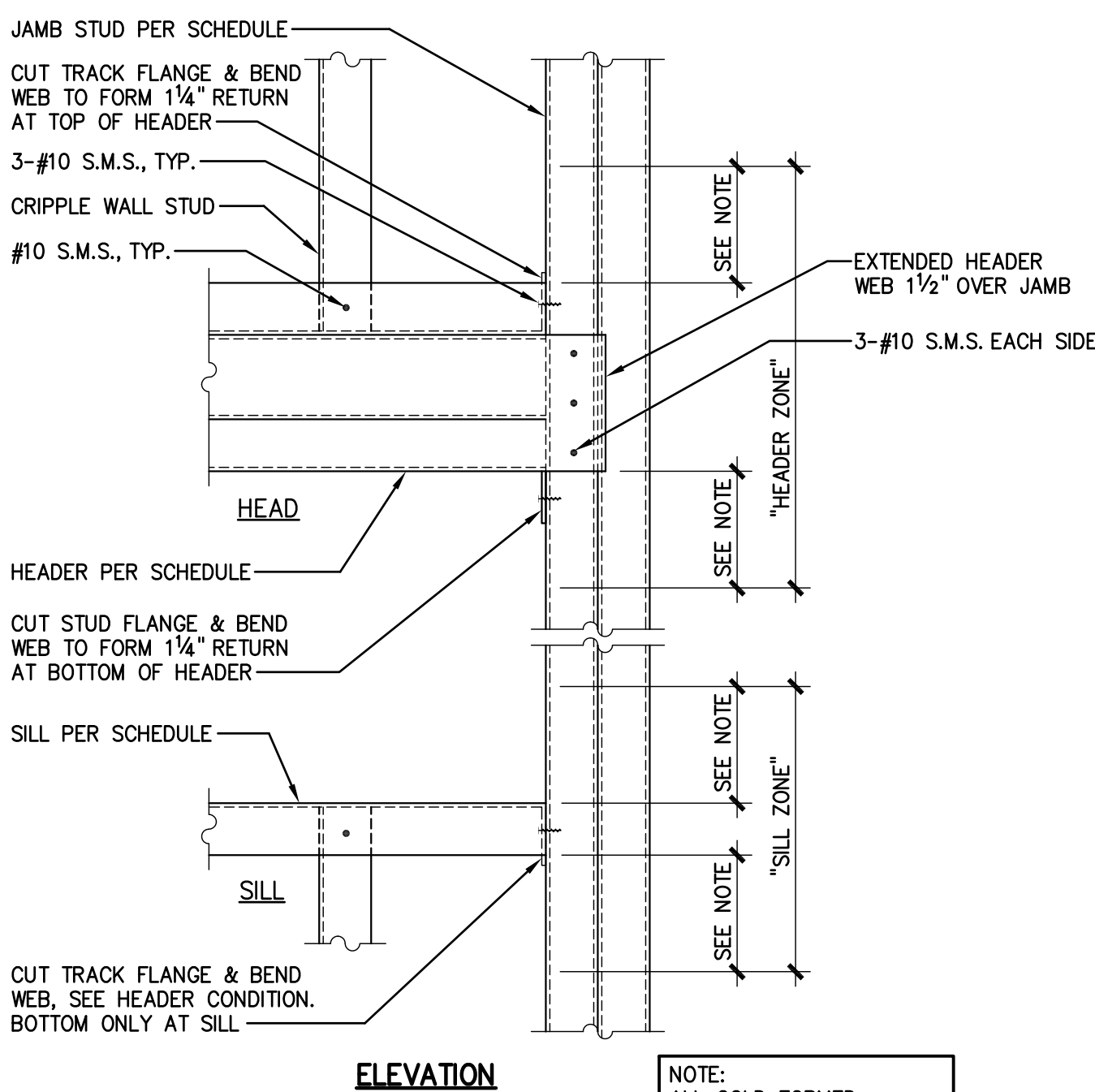
17 TYPICAL HEADER



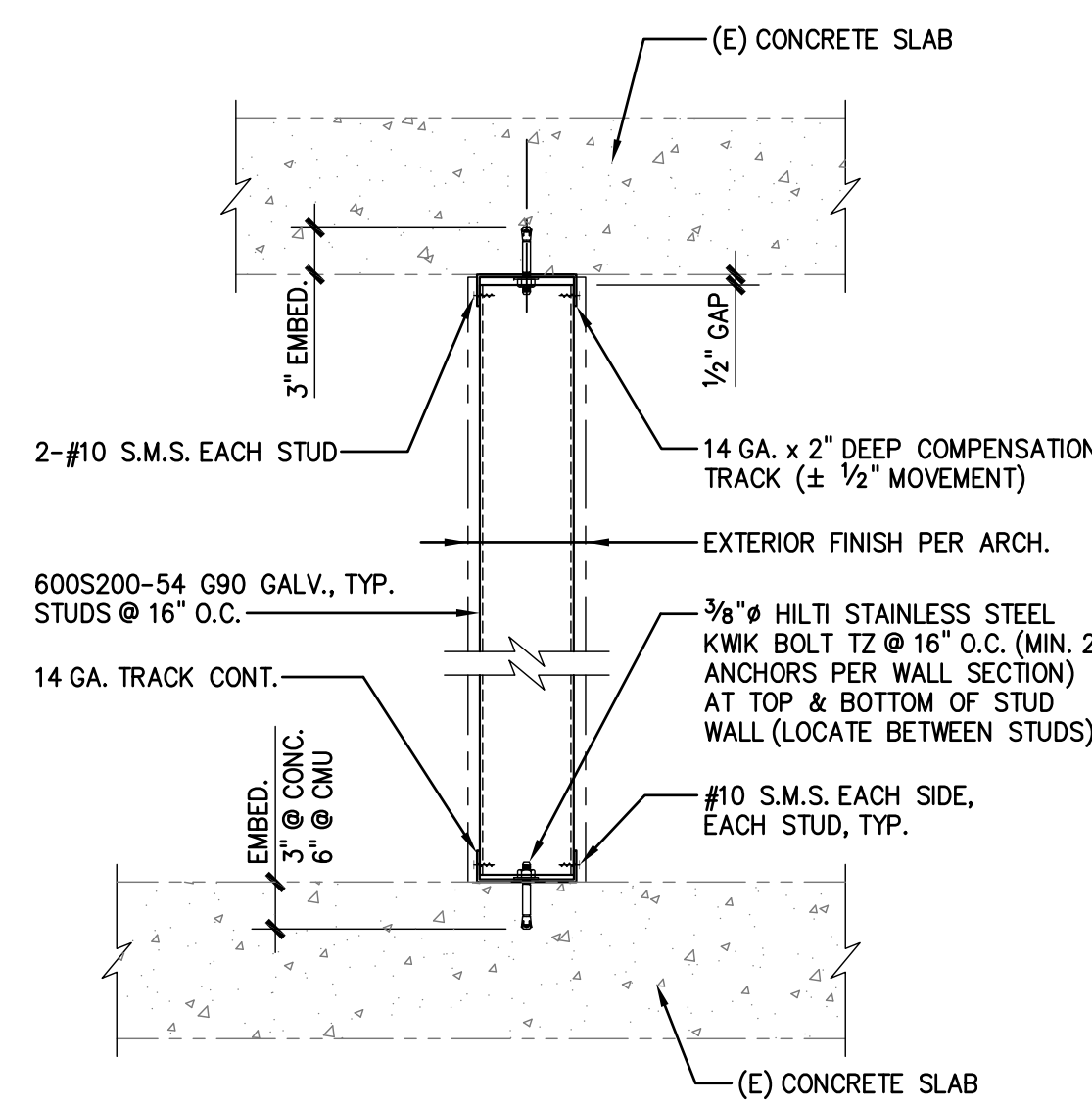
18 TYPICAL SILL



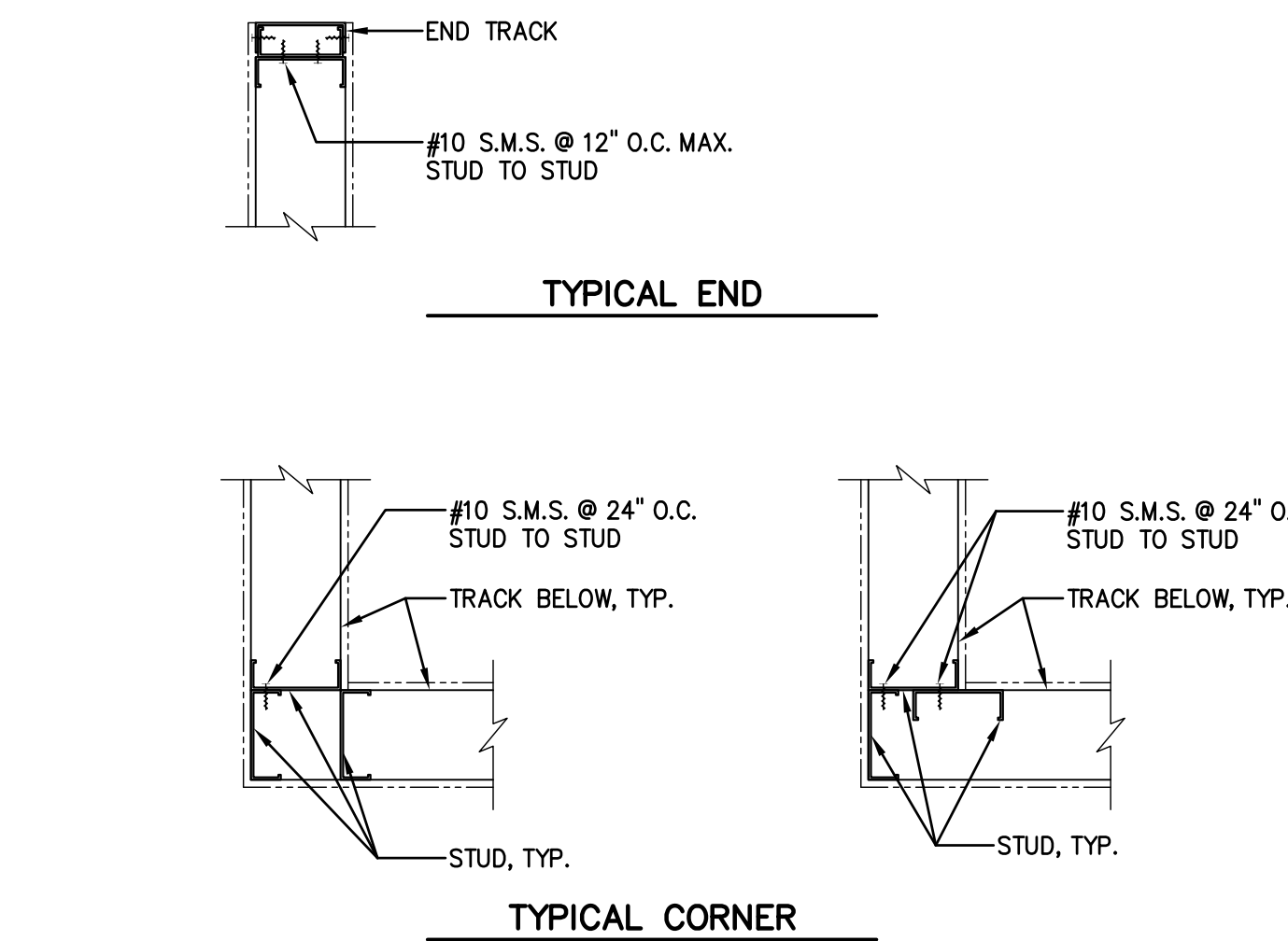
19 HEAD & SILL AT JAMB FOR 4'-0" MAX OPENING PARTITION WALL, TYPICAL



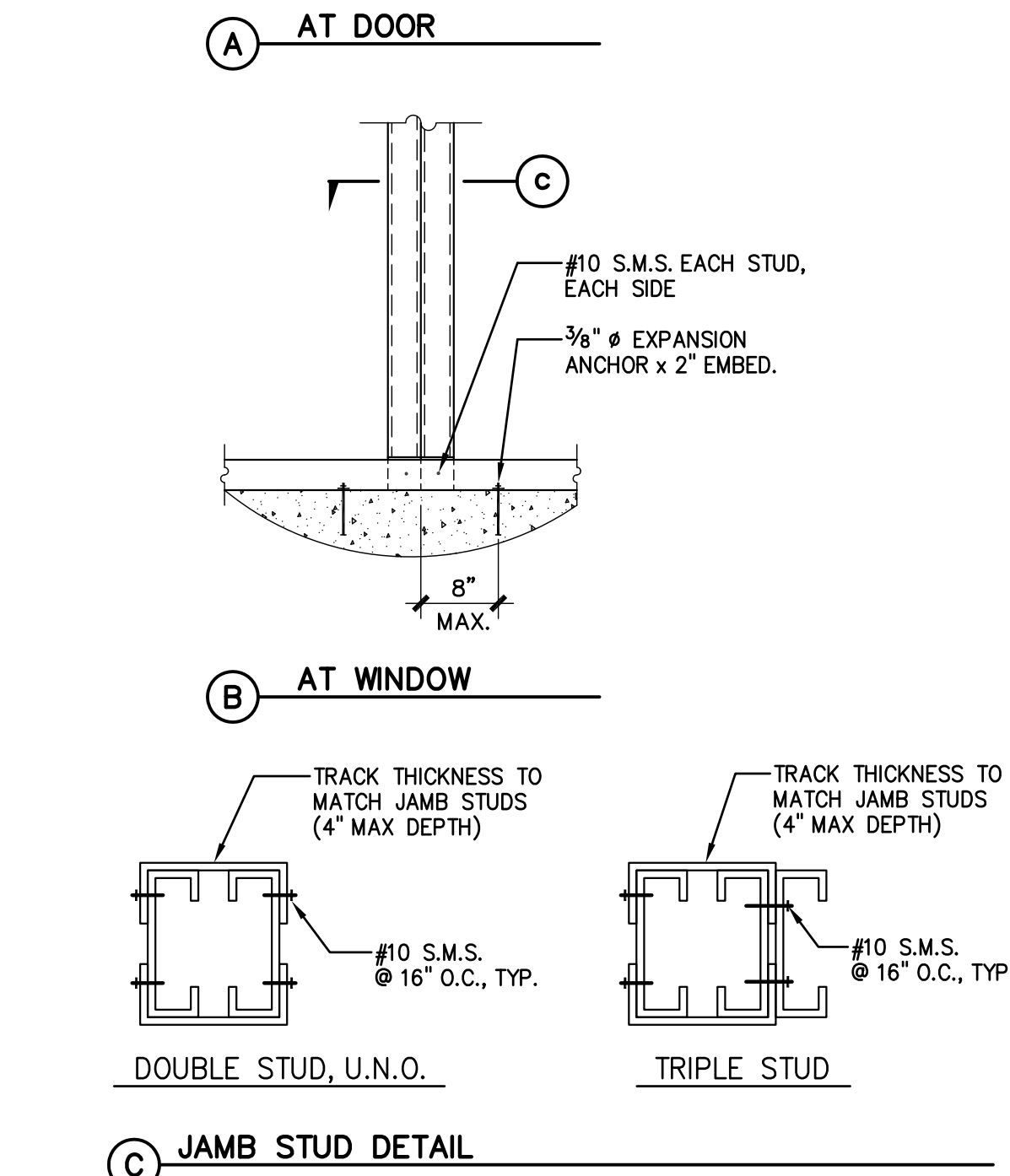
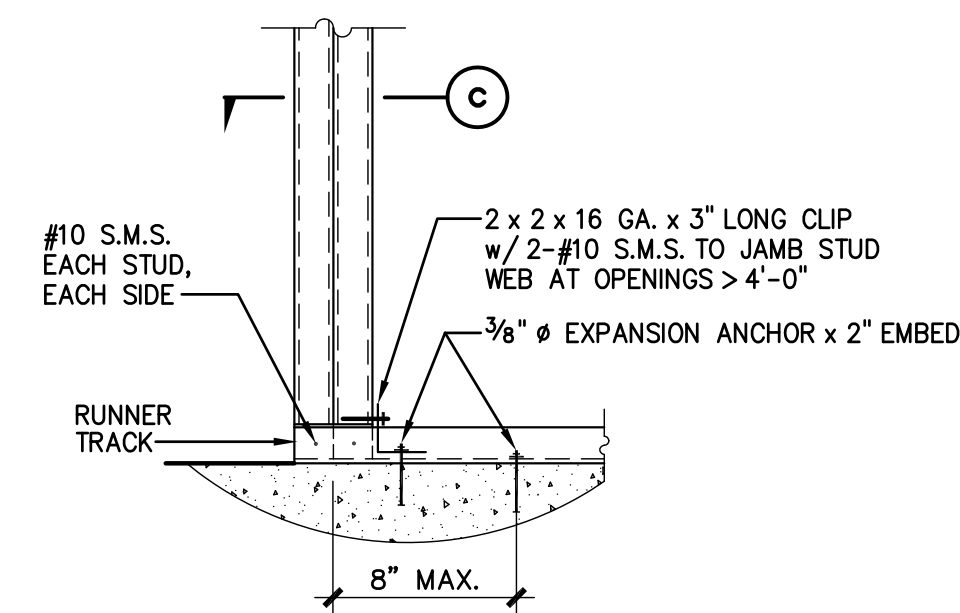
20 HEAD & SILL AT JAMB FOR 4'-0" TO 10'-0" MAX OPENING PARTITION WALL, TYPICAL



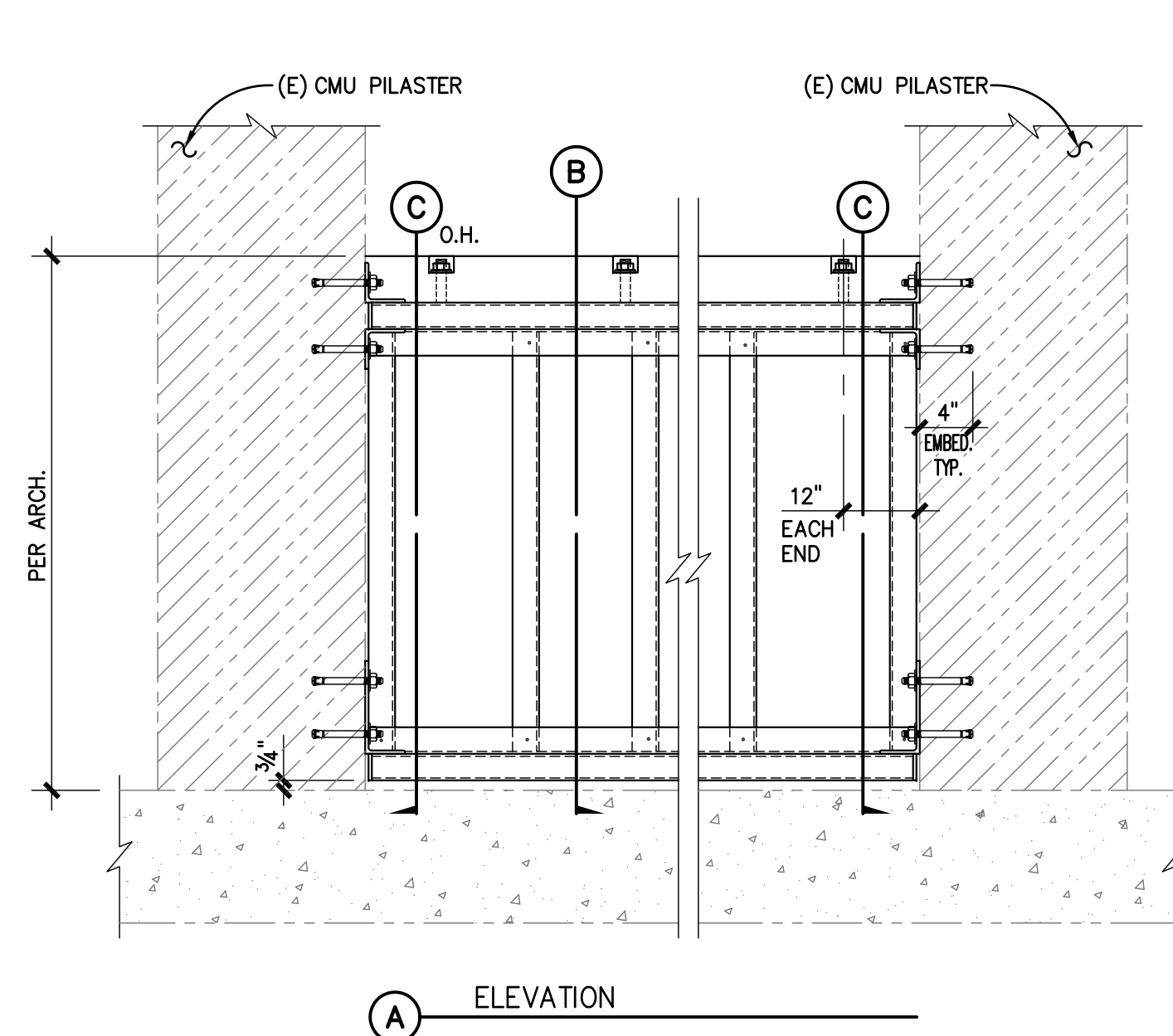
13 NONSTRUCTURAL STUD WALL



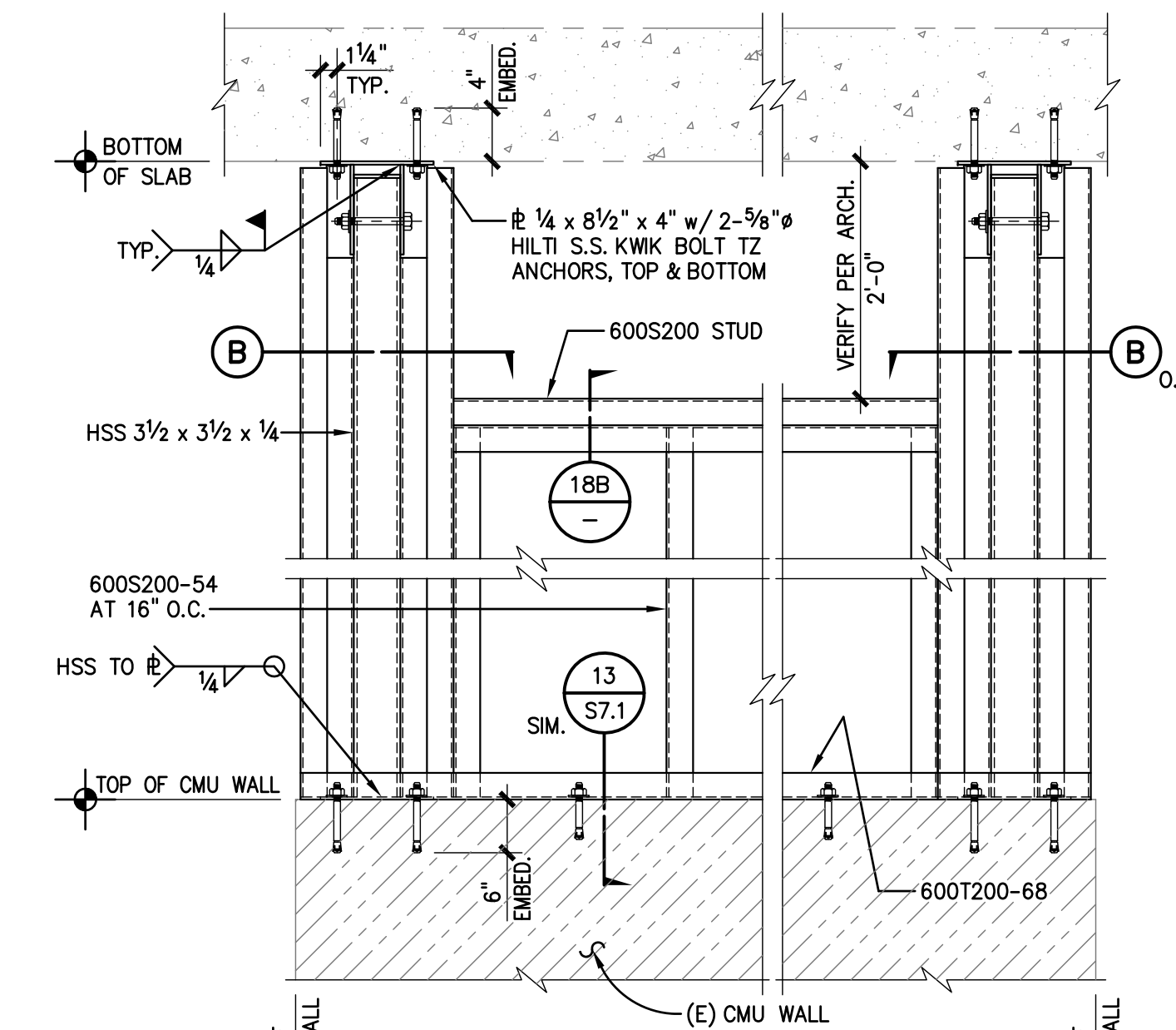
15 TYPICAL METAL STUD WALL INTERSECTION



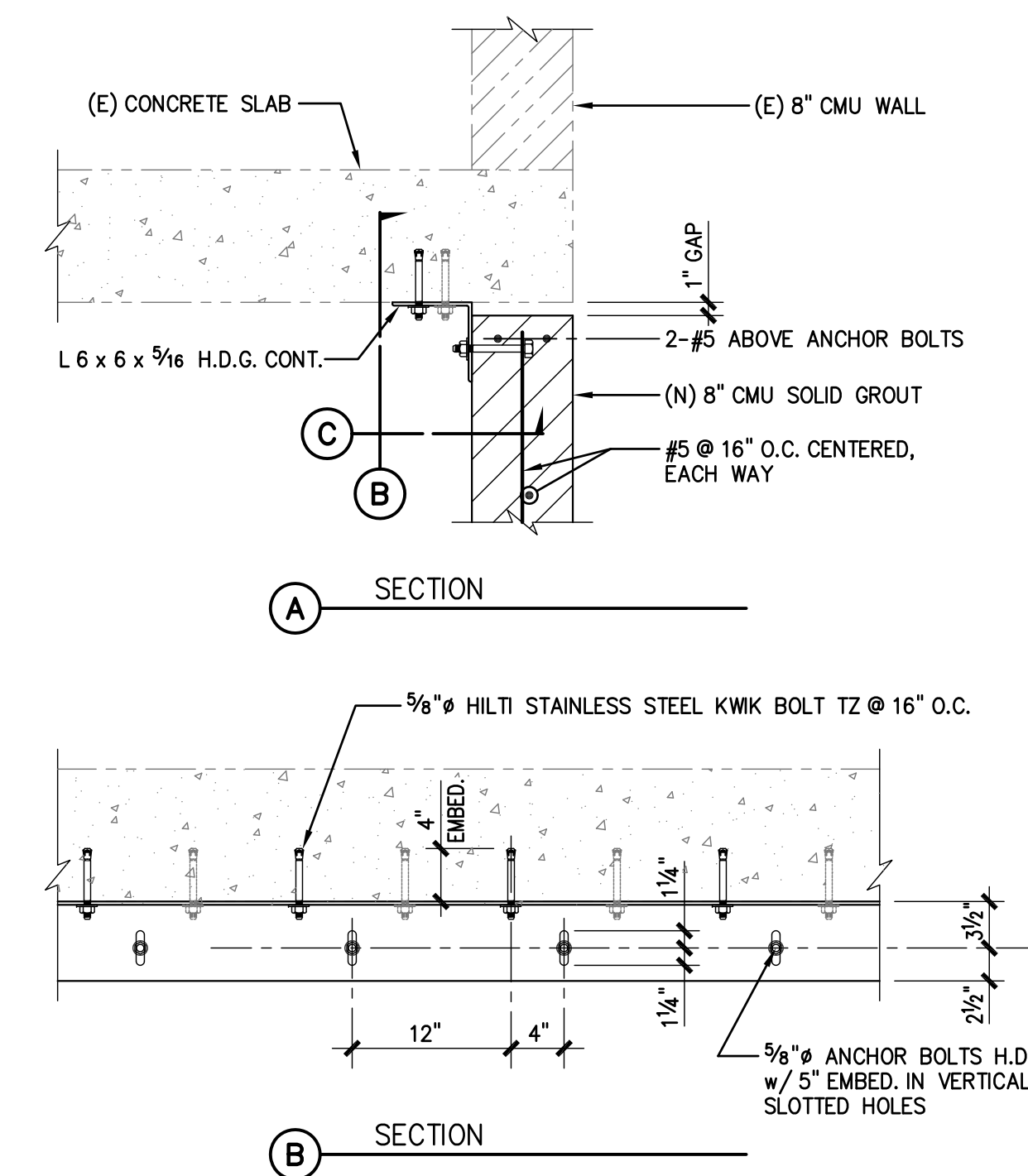
16 BOXED STUD JAMB BASE SIMILAR AT TOP - TYPICAL



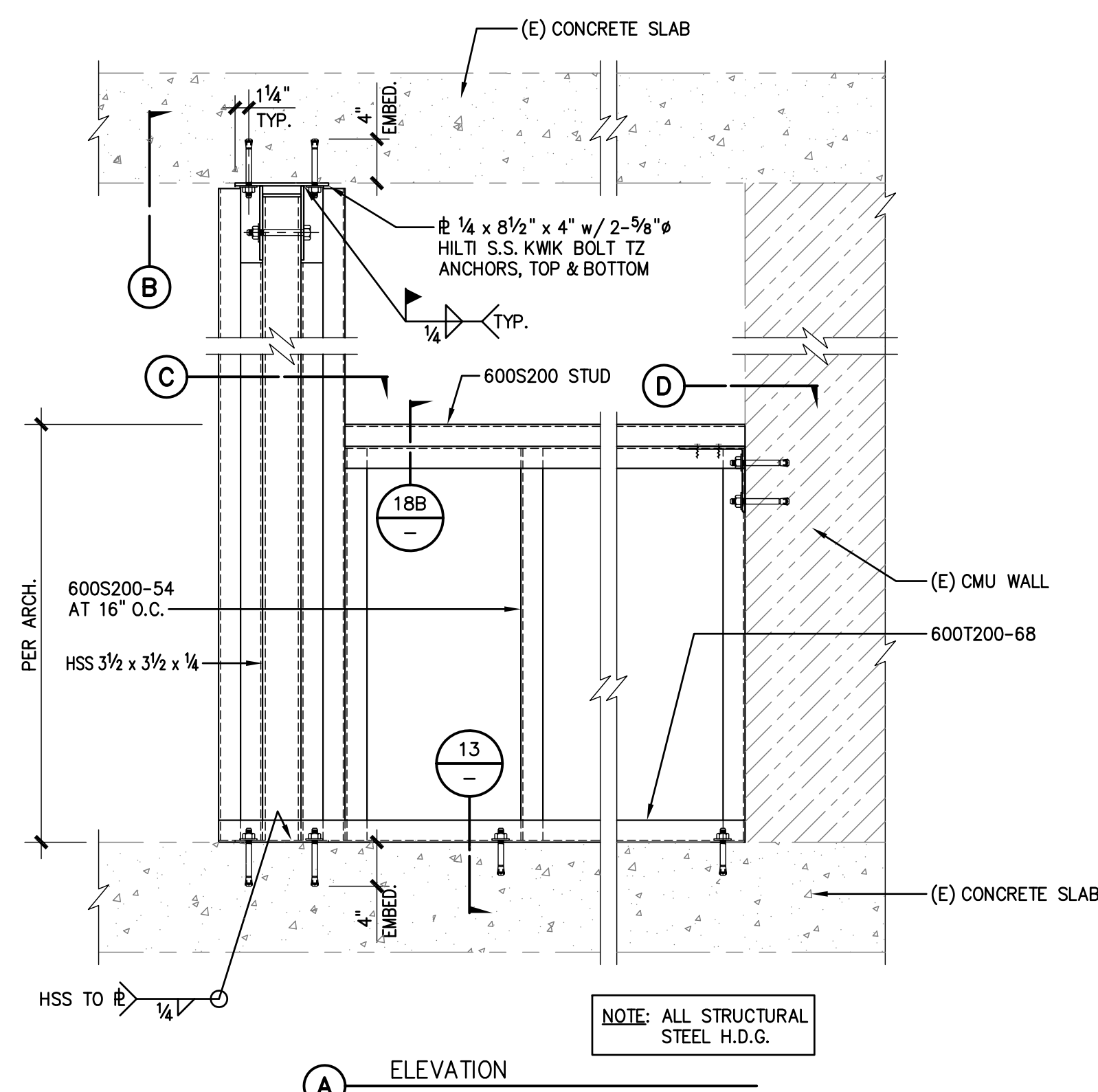
10 GUARD RAIL INFILL



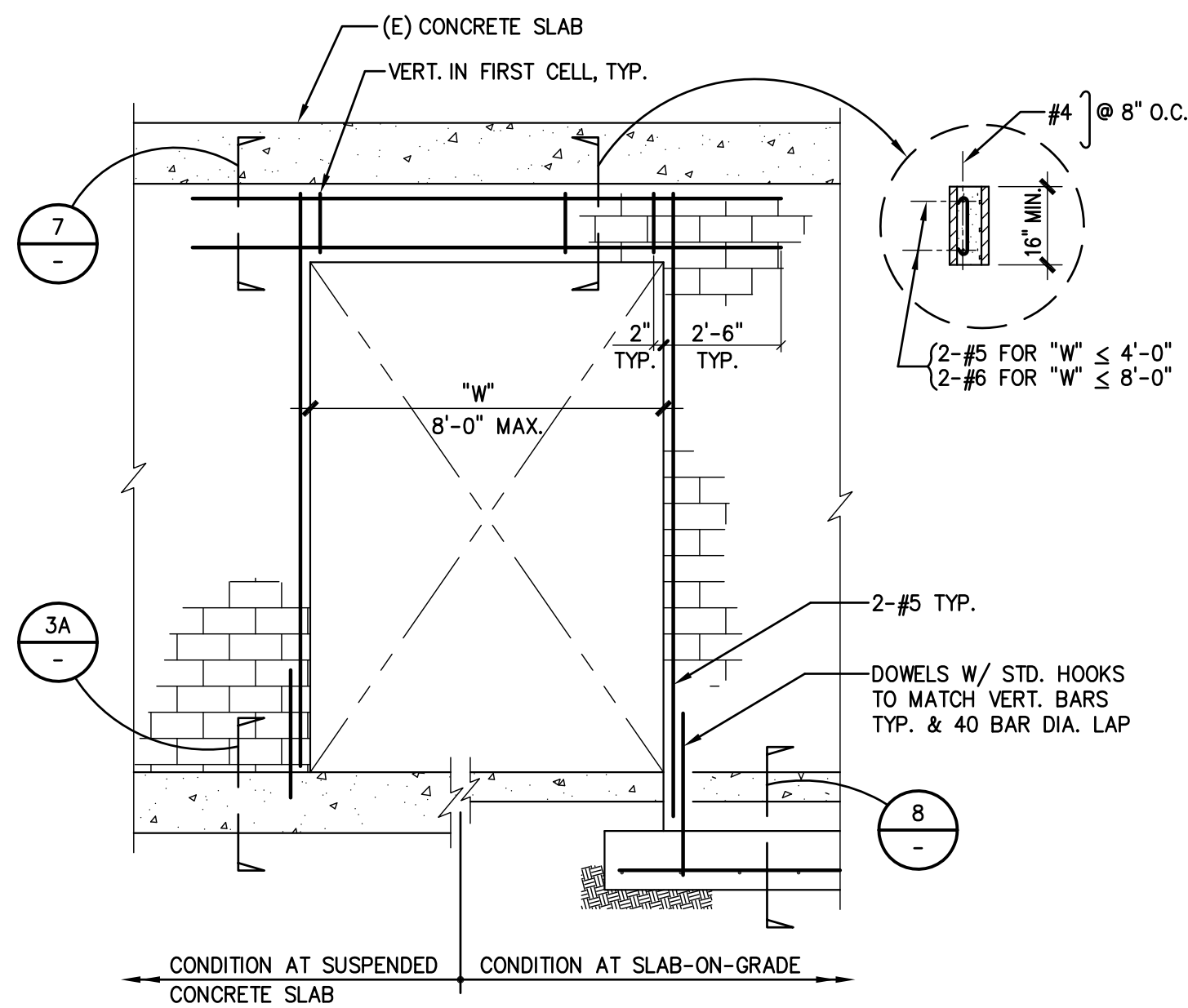
12 STEEL STUD WALL



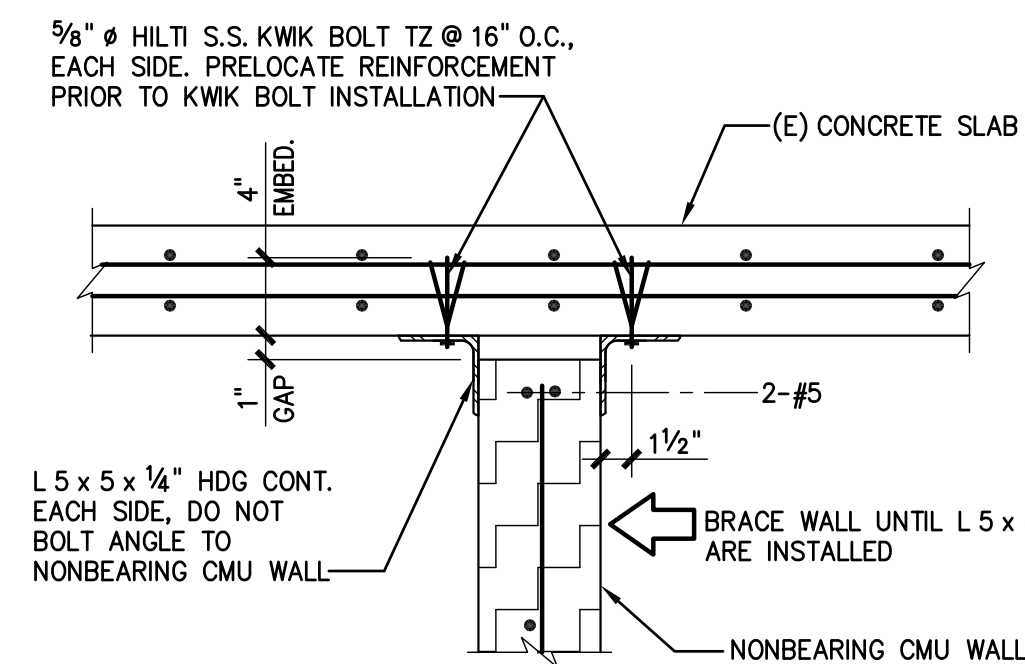
6 NON-BEARING CMU WALLS



8 PARTIAL HEIGHT STUD WALL



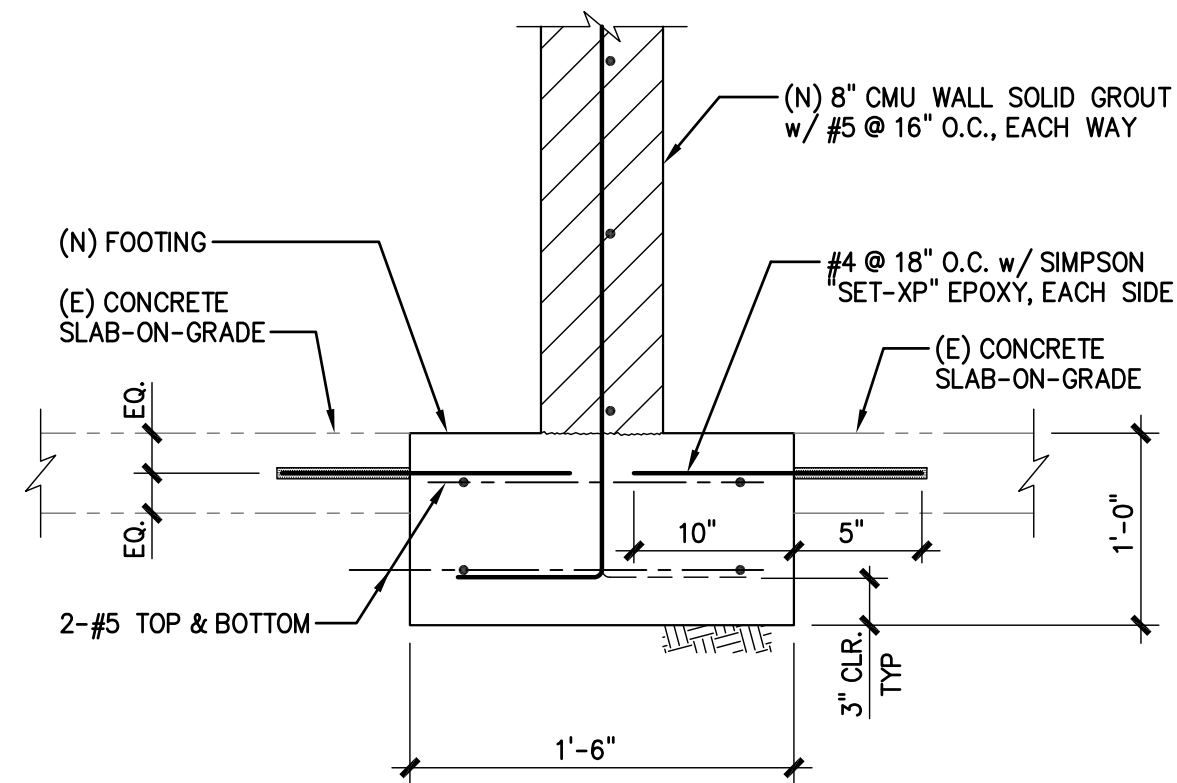
6 CMU WALL OPENING TYPICAL



7 BRACING AT TOP OF NON-BEARING WALLS

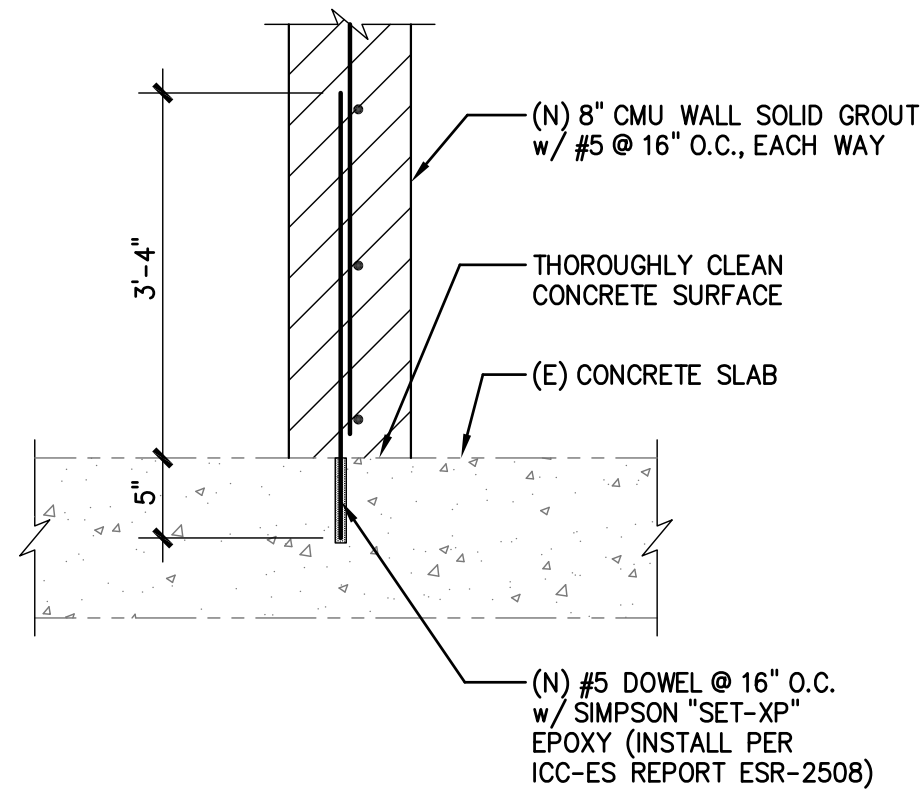
NOTE: REFER TO DETAIL "6/-" FOR ADDITIONAL INFO.

7 BRACING AT TOP OF NON-BEARING WALLS

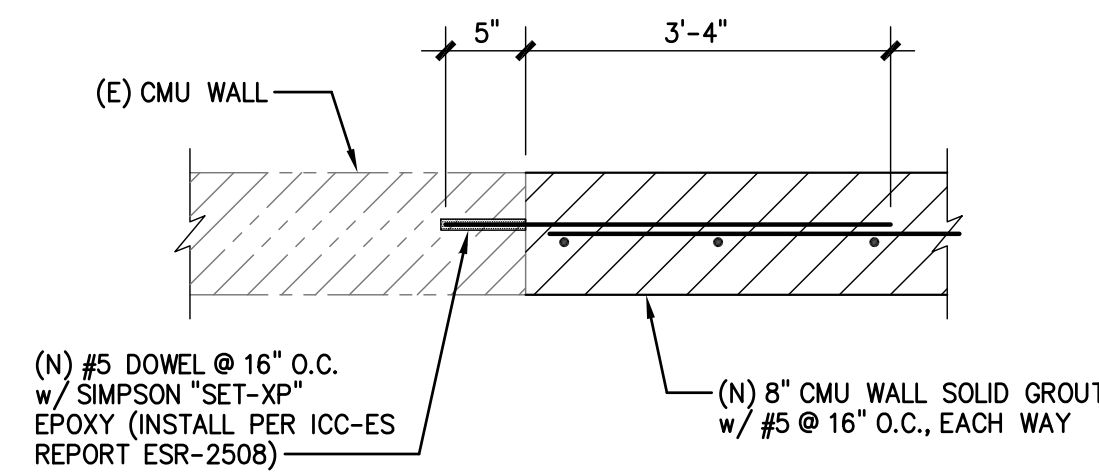


8 NON-BEARING CMU WALL FOOTING

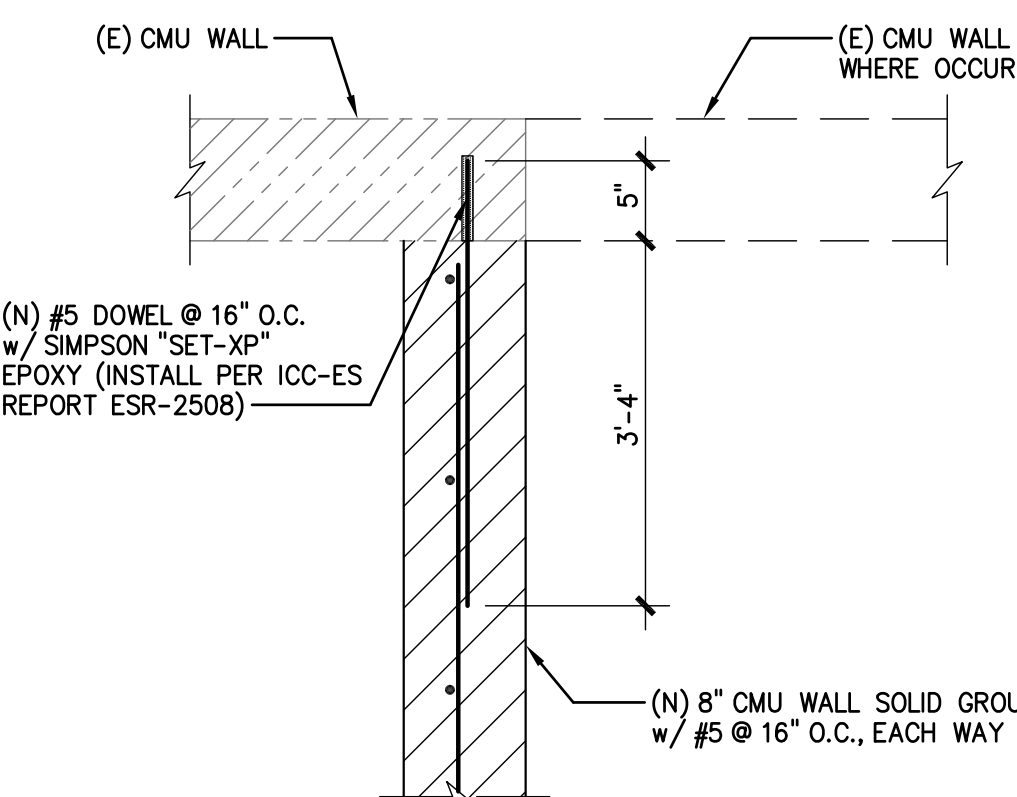
NOTE: REFER TO DETAIL "6/-" FOR ADDITIONAL INFO.



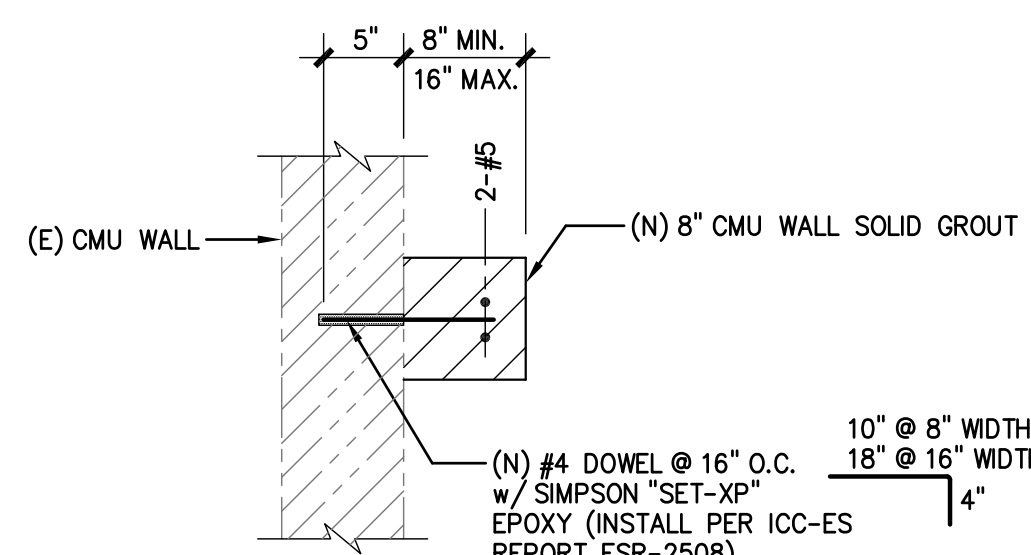
A SECTION: TOP OF (E) SLAB



B PLAN: CMU WALL END JOINT



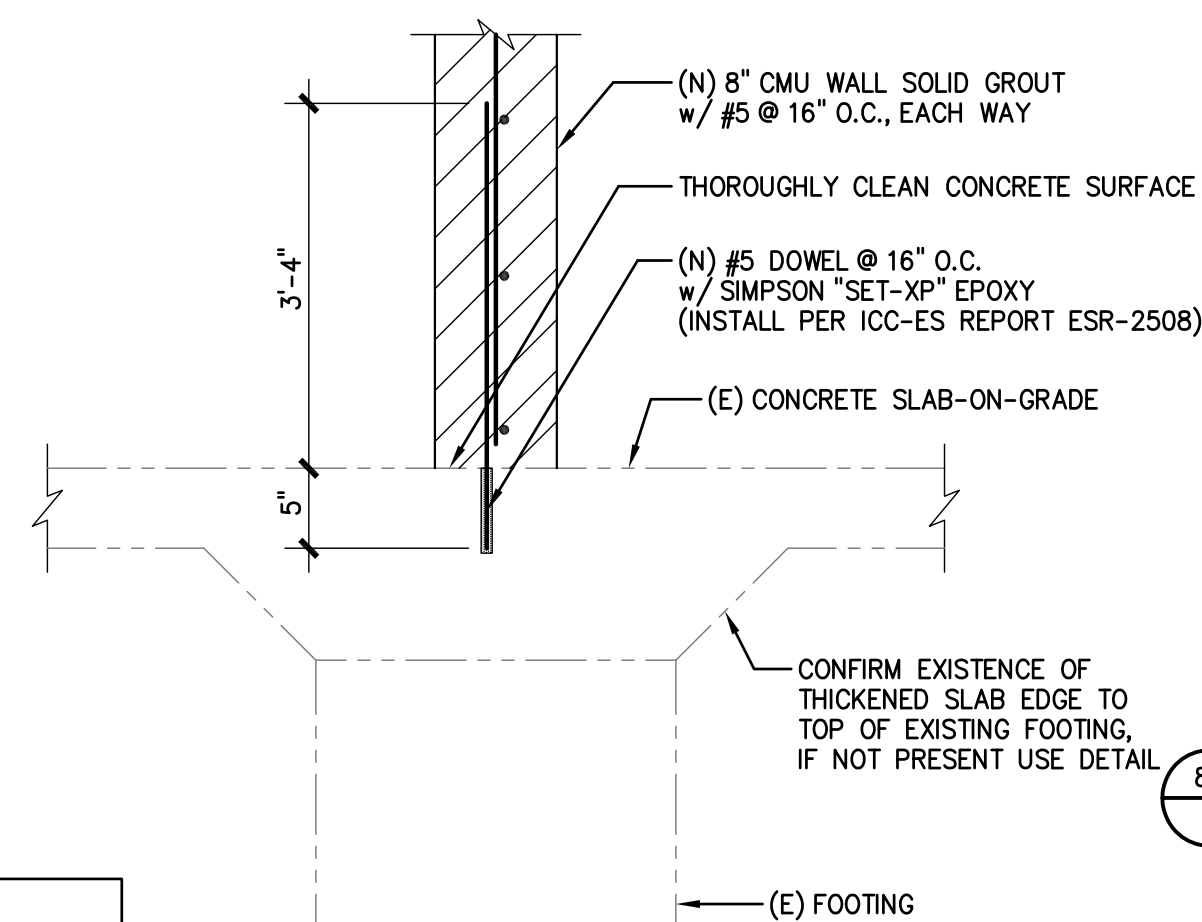
C PLAN: PERPENDICULAR CMU WALLS



D PLAN: CMU OPENING JAMB

NOTE: REFER TO DETAIL "6/-" FOR ADDITIONAL INFO.

3 (N) CMU WALL TO (E) CONCRETE/CMU



B EXISTING FOOTING



RSSE
REGISTERED STRUCTURAL ENGINEERS

C Solutions Group, Inc.
14401 Linderoth Avenue, Suite 100
Van Nuys, CA 91411
Tel: 818.709.1111
Fax: 818.709.1112

ORANGE COUNTY
FIRE AUTHORITY



OCFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

TOWER TRAINING PROP DETAILS
SCALE: N.T.S.
May 23, 2020

SHEET NO.

S - 7.2

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

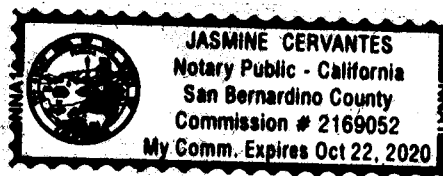
On September 09, 2020

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:

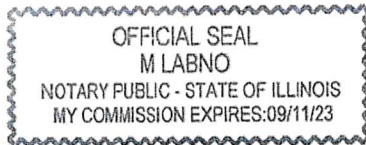
Signer is representing


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	\$77.07	\$46,242.00	N
2	Provide all necessary hardware for preparation to install conduit	300.00	Hour	\$59.88	\$17,964.00	N
3	Provide and Install 4"	225.00	Hour	\$77.07	\$17,340.75	N
4	Provide and Install PVC 1"	250.00	Hour	\$77.07	\$19,267.50	N
5	Provide and Install PVC 1 1/4"	65.00	Hour	\$77.07	\$5,009.55	N
6	Provide and Install 500, 600 and 4/0 electrical wire	250.00	Hour	\$77.07	\$19,267.50	N
7	Provide and Install equipment, panels, LD2/d, L1D/D	60.00	Hour	\$77.07	\$4,624.20	N
8	Provide and Install transformers, 30 and 150KVA	50.00	Hour	\$77.07	\$3,853.50	N
9	Provide and erect all sub-structures for equipment	300.00	Hour	\$77.07	\$23,121.00	N
10	Terminate, label and certify project	250.00	Hour	\$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	\$3.65	\$13,505.00	Y
2	Conduit 1"	600.00	FT	\$0.78	\$468.00	Y
3	Conduit 1-1/4"	300.00	EA	\$1.02	\$306.00	Y
4	500 MCM Wire	180.00	FT	\$8.00	\$1,440.00	Y
5	600 MCM Wire	3700.00	FT	\$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



816080

License Number

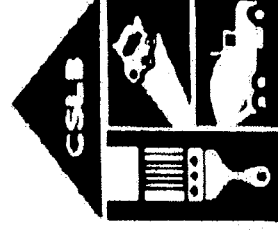
ENTR CORP

G A TECHNICAL SERVICES INC

Business Name

C-7 C10 B

Classification(s)



12/31/2020

Expiration Date

www.cslb.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
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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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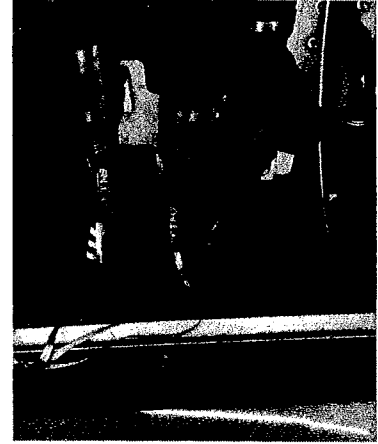
References

<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 reburshed 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 Humanities 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 jamesowerbrower@sjsu.edu	One Washington Square San Jose, CA 95192	4/28/16
Burbank-Glendale-Pasadena	Project # E13-09 Terminal High voltage	\$ 489,000.00	Replacement of transformers, switchboard, electrical panels and 2400 volt main feeders and associated 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 aguirereg@sacsewer.com 916-875-9075	8521 Laguna Station Rd. Elk Grove, Ca 95758	3/15/17

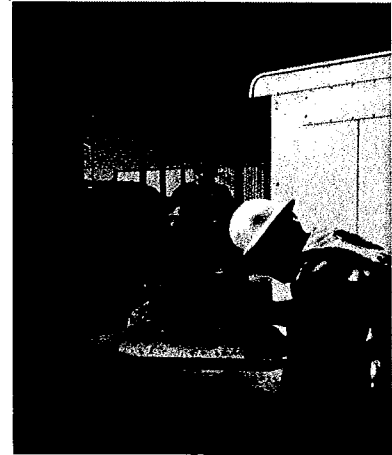
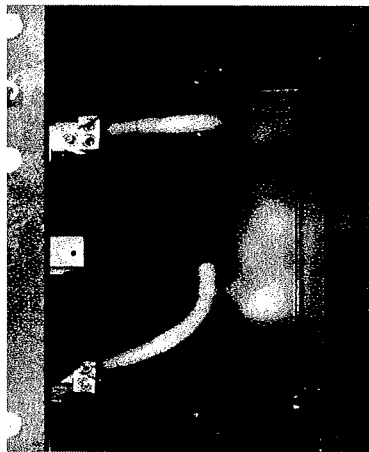
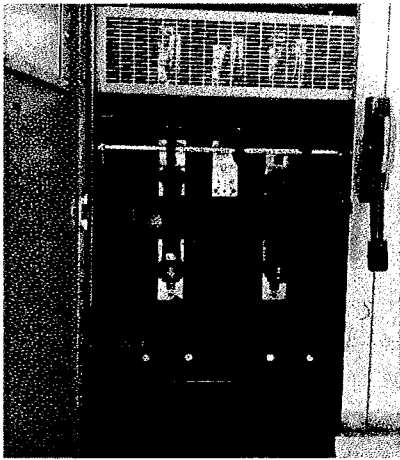
San Jose State University	Utilities Infrastructure Phas IV 12Kv Cable Pull	\$ 179,956.00	-	Providing and installing approximately 1,000' LF of (2) 4/0 3-phase medium voltage cable in existing 5" conduits and 3 existing vaults, work requires confined space and working on manholes with other energized 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 Authority 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 rschroeder@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 existing 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@twinkliversusd.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@cuhsd.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 rewiring 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

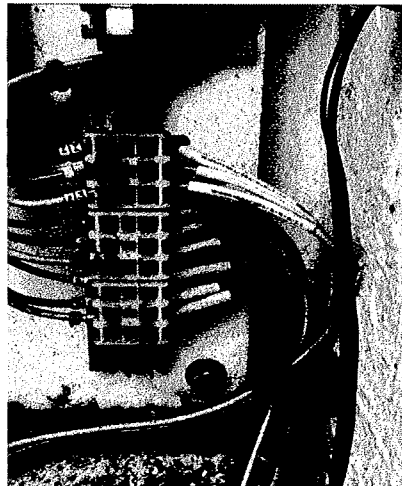
Medium Voltage Projects



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

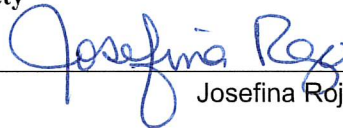
Print Name and Title of Signatory

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

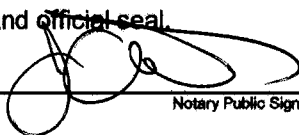
personally appeared Frank Cervantes

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.

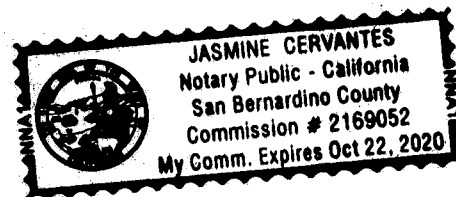
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

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.

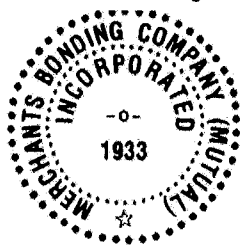
"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, 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.



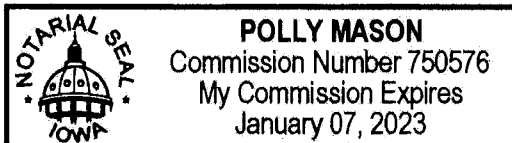
MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

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.



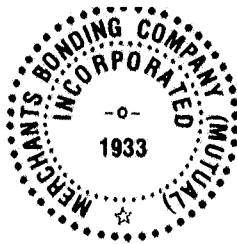
Polly Mason

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.

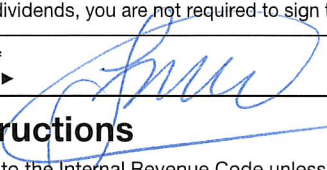
Social security number									
			-						
or									
Employer identification number									
3	2		-	0	0	1	9	6	8 2

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

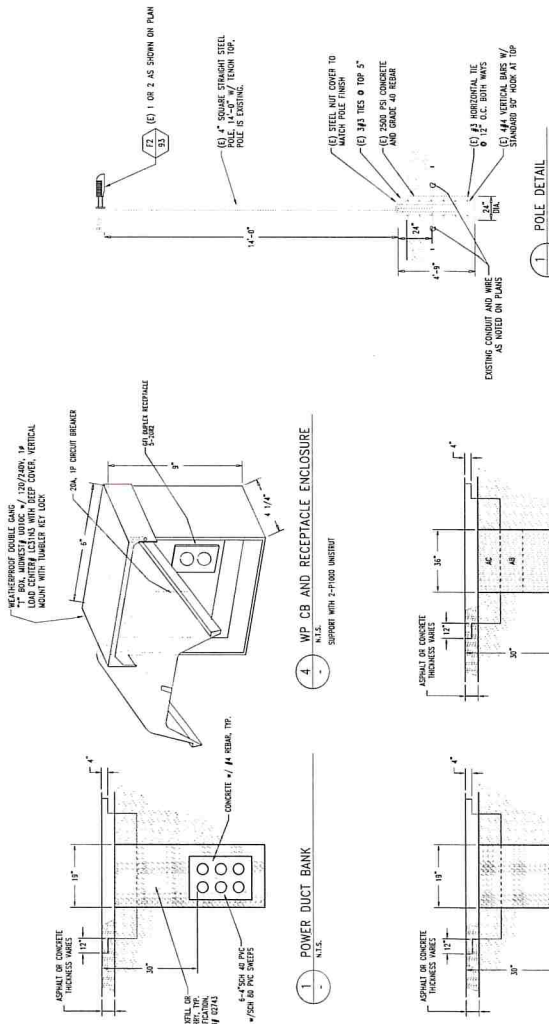
Other meetings deemed necessary for contract compliance

ATTACHMENT TWO: DRAWINGS AND SPECIFICATIONS

Following below are applicable drawings and specifications:

Site plan of the Orange County Fire Authority Headquarters. The plan shows the existing building complex (dashed line) and the proposed new building complex (solid line). The proposed building is a large, rectangular structure with a central section. The existing building is a smaller, rectangular structure. The plan also shows parking lots, a driveway, and surrounding roads: Jamboree Rd to the north, Fire Authority Rd to the east, and To 5 Hwy to the south. A north arrow is located in the upper right corner. A legend in the lower left corner identifies the existing building (dashed line) and the proposed building (solid line).

0.0 & E.Z.0



2 POWER DUCT BANK
N.T.S.

SHEET NUMBER	SHEET NAME/DESCRIPTION
EO.1	ELECTRICAL SITE & KEY PLAN, SYMBOLS, NOTES & COVER SHEET.
E1.0	ELECTRICAL ENLARGED SITE PLANS
E2.0	ELECTRICAL SINGLE LINE DIAGRAM

[illegible]

CONDUCTED WITH THE NEW ELECTIONS, CONDUCTED IN 1941, AND 1942. PROJECTED MAJOR TRENDS AND ESTIMATION OF TWO SERIES, JAN. 1950, TO PRESENT DATE, FROM THE 1941 AND 1942 DATA.

14. CONSUMPTION OF ELECTRICITY IN THE UNITED STATES BY SOURCE, CONSUMER, AND STATE BY YEAR, 1940, APPROXIMATE YEAR, 1941, AND 1942, AND 1943, AND 1944, AND 1945, AND 1946, AND 1947, AND 1948, AND 1949, AND 1950, AND 1951, AND 1952, AND 1953, AND 1954, AND 1955, AND 1956, AND 1957, AND 1958, AND 1959, AND 1960, AND 1961, AND 1962, AND 1963, AND 1964, AND 1965, AND 1966, AND 1967, AND 1968, AND 1969, AND 1970, AND 1971, AND 1972, AND 1973, AND 1974, AND 1975, AND 1976, AND 1977, AND 1978, AND 1979, AND 1980, AND 1981, AND 1982, AND 1983, AND 1984, AND 1985, AND 1986, AND 1987, AND 1988, AND 1989, AND 1990, AND 1991, AND 1992, AND 1993, AND 1994, AND 1995, AND 1996, AND 1997, AND 1998, AND 1999, AND 2000, AND 2001, AND 2002, AND 2003, AND 2004, AND 2005, AND 2006, AND 2007, AND 2008, AND 2009, AND 2010, AND 2011, AND 2012, AND 2013, AND 2014, AND 2015, AND 2016, AND 2017, AND 2018, AND 2019, AND 2020, AND 2021, AND 2022, AND 2023, AND 2024, AND 2025, AND 2026, AND 2027, AND 2028, AND 2029, 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14. ALLERGENIC SUBSTANCES AND DRUGS THAT ARE SUSCEPTIBLE TO DEGRADATION BY HUMIDITY SHOULD BE STORED IN A DRY PLACE AND SHOULD BE KEPT IN Airtight CONTAINERS. THE FOLLOWING SUBSTANCES SHOULD BE KEPT IN Airtight CONTAINERS: (a) VITAMIN A, VITAMIN C, VITAMIN E, VITAMIN K, VITAMIN B₁, VITAMIN B₂, VITAMIN B₆, VITAMIN B₁₂, VITAMIN D, VITAMIN FOLIC ACID, VITAMIN PANTOTHENIC ACID, VITAMIN B₅, VITAMIN B₇, VITAMIN B₉, VITAMIN B₁₀, VITAMIN B₁₁, VITAMIN B₁₂, VITAMIN B₁₃, VITAMIN B₁₄, VITAMIN B₁₅, VITAMIN B₁₆, VITAMIN B₁₇, VITAMIN B₁₈, VITAMIN B₁₉, VITAMIN B₂₀, VITAMIN B₂₁, VITAMIN B₂₂, VITAMIN B₂₃, VITAMIN B₂₄, VITAMIN B₂₅, VITAMIN B₂₆, VITAMIN B₂₇, VITAMIN B₂₈, VITAMIN B₂₉, VITAMIN B₃₀, VITAMIN B₃₁, VITAMIN B₃₂, VITAMIN B₃₃, VITAMIN B₃₄, VITAMIN B₃₅, VITAMIN B₃₆, VITAMIN B₃₇, VITAMIN B₃₈, VITAMIN B₃₉, VITAMIN B₄₀, VITAMIN B₄₁, VITAMIN B₄₂, VITAMIN B₄₃, VITAMIN B₄₄, VITAMIN B₄₅, VITAMIN B₄₆, VITAMIN B₄₇, VITAMIN B₄₈, VITAMIN B₄₉, VITAMIN B₅₀, VITAMIN B₅₁, VITAMIN B₅₂, VITAMIN B₅₃, VITAMIN B₅₄, VITAMIN B₅₅, VITAMIN B₅₆, VITAMIN B₅₇, VITAMIN B₅₈, VITAMIN B₅₉, VITAMIN B₆₀, VITAMIN B₆₁, VITAMIN B₆₂, VITAMIN B₆₃, VITAMIN B₆₄, VITAMIN B₆₅, VITAMIN B₆₆, VITAMIN B₆₇, VITAMIN B₆₈, VITAMIN B₆₉, VITAMIN B₇₀, VITAMIN B₇₁, VITAMIN B₇₂, VITAMIN B₇₃, VITAMIN B₇₄, VITAMIN B₇₅, VITAMIN B₇₆, VITAMIN B₇₇, VITAMIN B₇₈, VITAMIN B₇₉, VITAMIN B₈₀, VITAMIN B₈₁, VITAMIN B₈₂, VITAMIN B₈₃, VITAMIN B₈₄, VITAMIN B₈₅, VITAMIN B₈₆, VITAMIN B₈₇, VITAMIN B₈₈, VITAMIN B₈₉, VITAMIN B₉₀, VITAMIN B₉₁, VITAMIN B₉₂, VITAMIN B₉₃, VITAMIN B₉₄, VITAMIN B₉₅, VITAMIN B₉₆, VITAMIN B₉₇, VITAMIN B₉₈, VITAMIN B₉₉, VITAMIN B₁₀₀, VITAMIN B₁₀₁, VITAMIN B₁₀₂, VITAMIN B₁₀₃, VITAMIN B₁₀₄, VITAMIN B₁₀₅, VITAMIN B₁₀₆, VITAMIN B₁₀₇, VITAMIN B₁₀₈, VITAMIN B₁₀₉, VITAMIN B₁₁₀, VITAMIN B₁₁₁, VITAMIN B₁₁₂, VITAMIN B₁₁₃, VITAMIN B₁₁₄, VITAMIN B₁₁₅, VITAMIN B₁₁₆, VITAMIN B₁₁₇, VITAMIN B₁₁₈, VITAMIN B₁₁₉, VITAMIN B₁₂₀, VITAMIN B₁₂₁, VITAMIN B₁₂₂, VITAMIN B₁₂₃, VITAMIN B₁₂₄, VITAMIN B₁₂₅, VITAMIN B₁₂₆, VITAMIN B₁₂₇, VITAMIN B₁₂₈, VITAMIN B₁₂₉, VITAMIN B₁₃₀, VITAMIN B₁₃₁, VITAMIN B₁₃₂, VITAMIN B₁₃₃, VITAMIN B₁₃₄, VITAMIN B₁₃₅, VITAMIN B₁₃₆, VITAMIN B₁₃₇, VITAMIN B₁₃₈, VITAMIN B₁₃₉, VITAMIN B₁₄₀, VITAMIN B₁₄₁, VITAMIN B₁₄₂, VITAMIN B₁₄₃, VITAMIN B₁₄₄, VITAMIN B₁₄₅, VITAMIN B₁₄₆, VITAMIN B₁₄₇, VITAMIN B₁₄₈, VITAMIN B₁₄₉, VITAMIN B₁₅₀, VITAMIN B₁₅₁, VITAMIN B₁₅₂, VITAMIN B₁₅₃, VITAMIN B₁₅₄, VITAMIN B₁₅₅, VITAMIN B₁₅₆, VITAMIN B₁₅₇, VITAMIN B₁₅₈, VITAMIN B₁₅₉, VITAMIN B₁₆₀, VITAMIN B₁₆₁, VITAMIN B₁₆₂, VITAMIN B₁₆₃, VITAMIN B₁₆₄, VITAMIN B₁₆₅, VITAMIN B₁₆₆, VITAMIN B₁₆₇, VITAMIN B₁₆₈, VITAMIN B₁₆₉, VITAMIN B₁₇₀, VITAMIN B₁₇₁, VITAMIN B₁₇₂, VITAMIN B₁₇₃, VITAMIN B₁₇₄, VITAMIN B₁₇₅, VITAMIN B₁₇₆, VITAMIN B₁₇₇, VITAMIN B₁₇₈, VITAMIN B₁₇₉, VITAMIN B₁₈₀, VITAMIN B₁₈₁, VITAMIN B₁₈₂, VITAMIN B₁₈₃, VITAMIN B₁₈₄, VITAMIN B₁₈₅, VITAMIN B₁₈₆, VITAMIN B₁₈₇, VITAMIN B₁₈₈, VITAMIN B₁₈₉, VITAMIN B₁₉₀, VITAMIN B₁₉₁, VITAMIN B₁₉₂, VITAMIN B₁₉₃, VITAMIN B₁₉₄, VITAMIN B₁₉₅, VITAMIN B₁₉₆, VITAMIN B₁₉₇, VITAMIN B₁₉₈, VITAMIN B₁₉₉, VITAMIN B₂₀₀, VITAMIN B₂₀₁, VITAMIN B₂₀₂, VITAMIN B₂₀₃, VITAMIN B₂₀₄, VITAMIN B₂₀₅, VITAMIN B₂₀₆, VITAMIN B₂₀₇, VITAMIN B₂₀₈, VITAMIN B₂₀₉, VITAMIN B₂₁₀, VITAMIN B₂₁₁, VITAMIN B₂₁₂, VITAMIN B₂₁₃, VITAMIN B₂₁₄, VITAMIN B₂₁₅, VITAMIN B₂₁₆, VITAMIN B₂₁₇, VITAMIN B₂₁₈, VITAMIN B₂₁₉, VITAMIN B₂₂₀, VITAMIN B₂₂₁, VITAMIN B₂₂₂, VITAMIN B₂₂₃, VITAMIN B₂₂₄, VITAMIN B₂₂₅, VITAMIN B₂₂₆, VITAMIN B₂₂₇, VITAMIN B₂₂₈, VITAMIN B₂₂₉, VITAMIN B₂₃₀, VITAMIN B₂₃₁, VITAMIN B₂₃₂, VITAMIN B₂₃₃, VITAMIN B₂₃₄, VITAMIN B₂₃₅, VITAMIN B₂₃₆, VITAMIN B₂₃₇, VITAMIN B₂₃₈, VITAMIN B₂₃₉, VITAMIN B₂₄₀, VITAMIN B₂₄₁, VITAMIN B₂₄₂, VITAMIN B₂₄₃, VITAMIN B₂₄₄, VITAMIN B₂₄₅, VITAMIN B₂₄₆, VITAMIN B₂₄₇, VITAMIN B₂₄₈, VITAMIN B₂₄₉, VITAMIN B₂₅₀, VITAMIN B₂₅₁, VITAMIN B₂₅₂, VITAMIN B₂₅₃, VITAMIN B₂₅₄, VITAMIN B₂₅₅, VITAMIN B₂₅₆, VITAMIN B₂₅₇, VITAMIN B₂₅₈, VITAMIN B₂₅₉, VITAMIN B₂₆₀, VITAMIN B₂₆₁, VITAMIN B₂₆₂, VITAMIN B₂₆₃, VITAMIN B₂₆₄, VITAMIN B₂₆₅, VITAMIN B₂₆₆, VITAMIN B₂₆₇, VITAMIN B₂₆₈, VITAMIN B₂₆₉, VITAMIN B₂₇₀, VITAMIN B₂₇₁, VITAMIN B₂₇₂, VITAMIN B₂₇₃, VITAMIN B₂₇₄, VITAMIN B₂₇₅, VITAMIN B₂₇₆, VITAMIN B₂₇₇, VITAMIN B₂₇₈, VITAMIN B₂₇₉, VITAMIN B₂₈₀, VITAMIN B₂₈₁, VITAMIN B₂₈₂, VITAMIN B₂₈₃, VITAMIN B₂₈₄, VITAMIN B₂₈₅, VITAMIN B₂₈₆, VITAMIN B₂₈₇, VITAMIN B₂₈₈, VITAMIN B₂₈₉, VITAMIN B₂₉₀, VITAMIN B₂₉₁, VITAMIN B₂₉₂, VITAMIN

20. CONTRACTOR IS TO SUBMIT PROPOSED FOUNDATION FOR ALL DUTY CYCLES PER SPECIFICATION. FOUNDATION SHALL BE DESIGNED TO SUPPORT AND RESIST ALL SLAB LOADS, SUBGRADE LOADS AND SEISMIC REQUIREMENTS.
21. TEMPORARY FOUNDATION FOR CONSTRUCTION, EXCAVATION, OR SYSTEM REQUIRED IS TO BE PROVIDED BY THE CONTRACTOR AND SHALL BE FOR ALL AND ON OWN REQUIREMENTS.
22. PULL BOXES NOT SPECIFICALLY NOTED ON THE DRAWING SHALL BE USED FOR THE SMALL, MIDDLE AND LARGE AND FURNISHED WITH BOTH DOWN TIGHT BARS COLD SET IN IT FOR SMALL BOX.
23. PRIOR TO BEGINNING OF EXCAVATION LOCATE ALL UTILITIES BY CALLING 1-800-422-4113.
24. ELECTRICAL EQUIPMENT SHALL BE LISTED BY A CITY OF INDIANA RECOGNIZED ELECTRICAL TESTING LAB OR APPROVED EQUIPMENT.

NO.	ABBREVIATIONS	NO.	ABBREVIATIONS	NO.	ABBREVIATIONS	NO.	ABBREVIATIONS
1	100	101	100	102	100	103	100
2	100	104	100	105	100	106	100
3	100	107	100	108	100	109	100
4	100	110	100	111	100	112	100
5	100	113	100	114	100	115	100
6	100	116	100	117	100	118	100
7	100	119	100	120	100	121	100
8	100	122	100	123	100	124	100
9	100	125	100	126	100	127	100
10	100	128	100	129	100	130	100
11	100	131	100	132	100	133	100
12	100	134	100	135	100	136	100
13	100	137	100	138	100	139	100
14	100	140	100	141	100	142	100
15	100	143	100	144	100	145	100
16	100	146	100	147	100	148	100
17	100	149	100	150	100	151	100
18	100	152	100	153	100	154	100
19	100	155	100	156	100	157	100
20	100	158	100	159	100	160	100
21	100	161	100	162	100	163	100
22	100	164	100	165	100	166	100
23	100	167	100	168	100	169	100
24	100	170	100	171	100	172	100
25	100	173	100	174	100	175	100
26	100	176	100	177	100	178	100
27	100	179	100	180	100	181	100
28	100	182	100	183	100	184	100
29	100	185	100	186	100	187	100
30	100	188	100	189	100	190	100
31	100	191	100	192	100	193	100
32	100	194	100	195	100	196	100
33	100	197	100	198	100	199	100
34	100	200	100	201	100	202	100
35	100	203	100	204	100	205	100
36	100	206	100	207	100	208	100
37	100	209	100	210	100	211	100
38	100	212	100	213	100	214	100
39	100	215	100	216	100	217	100
40	100	218	100	219	100	220	100
41	100	221	100	222	100	223	100
42	100	224	100	225	100	226	100
43	100	227	100	228	100	229	100
44	100	230	100	231	100	232	100
45	100	233	100	234	100	235	100
46	100	236	100	237	100	238	100
47	100	239	100	240	100	241	100
48	100	242	100	243	100	244	100
49	100	245	100	246	100	247	100
50	100	248	100	249	100	250	100
51	100	251	100	252	100	253	100
52	100	254	100				

STUDY	DESIGN	SETTING	WAVE
1	CS	STATION	1
2	CS	STATION	2
3	CS	STATION	3
4	CS	STATION	4
5	CS	STATION	5
6	CS	STATION	6
7	CS	STATION	7
8	CS	STATION	8
9	CS	STATION	9
10	CS	STATION	10
11	CS	STATION	11
12	CS	STATION	12
13	CS	STATION	13
14	CS	STATION	14
15	CS	STATION	15
16	CS	STATION	16
17	CS	STATION	17
18	CS	STATION	18
19	CS	STATION	19
20	CS	STATION	20
21	CS	STATION	21
22	CS	STATION	22
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24	CS	STATION	24
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26	CS	STATION	26
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SHEET NUMBER	SHEET NAME/DESCRIPTION
EO.1	ELECTRICAL SITE & KEY PLAN, SYMBOLS, NOTES & COVER SHEET.
E1.0	ELECTRICAL ENLARGED SITE PLANS
E2.0	ELECTRICAL SINGLE LINE DIAGRAM

2 POWER DUCT BANK
N.T.S.

Sheet	Sheet	OLD	OLD
Drawn	Check	LDW	LDW
Date	Date	04/08/2020	04/08/2020

Sheet

E0.1

of 3

Sheet Title	Project	Emergency Electrical Power Dist Training Ctr
ELECTRICAL SITE & KEY PLAN, SYMBOLS & NOTES	RF# Number:	1 Fire Authority Road Irvine, California 92602

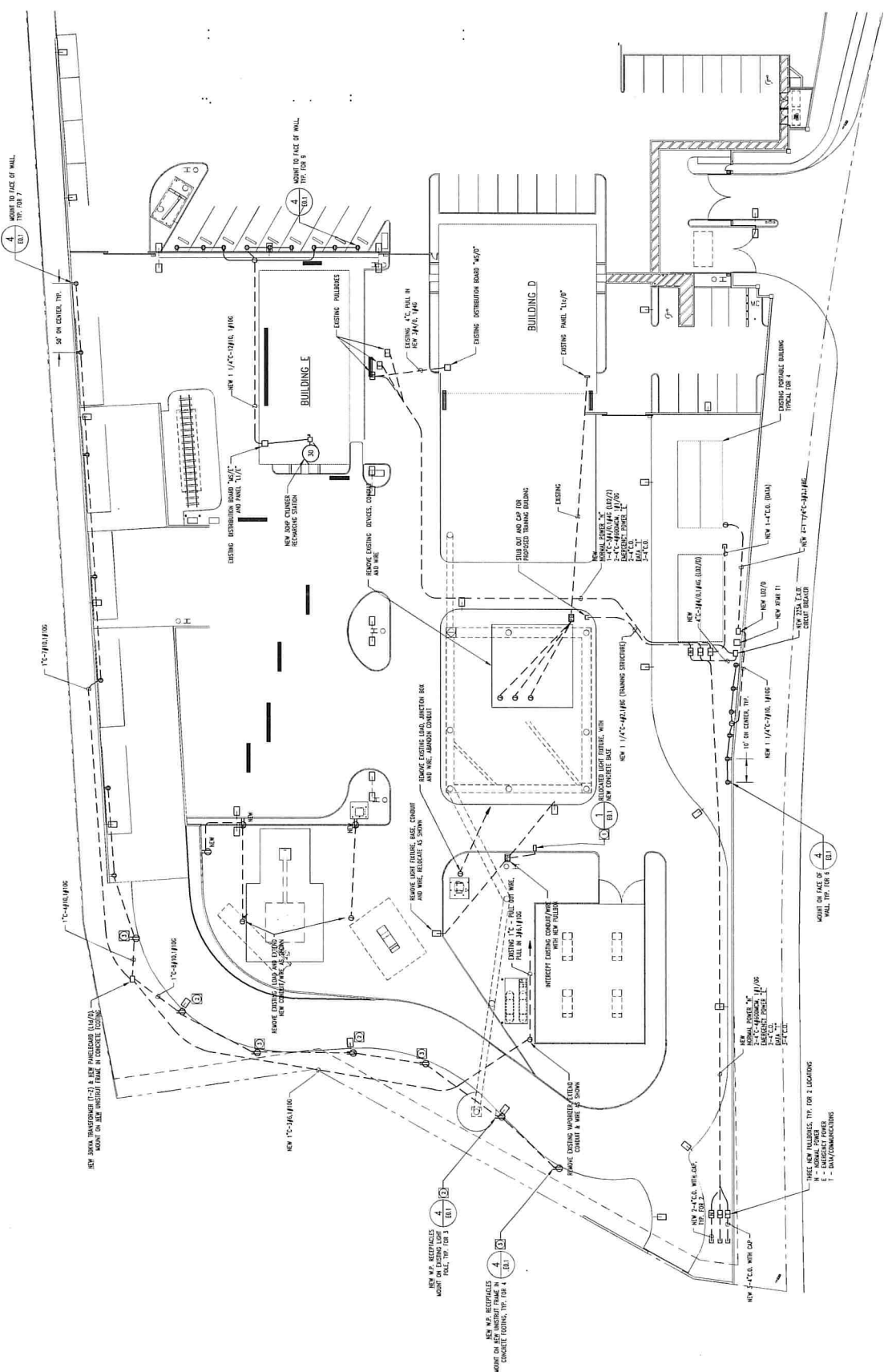
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Date	04/09/2002

SM Title ELECTRICAL SITE PLAN
 Project Emergency Electrical Power Dist Training Ctr
 RFP Number:
 Irvine, California 92602

for Regional Fire Operations and Training Center
 Emergency Electrical Power Dist Training Ctr
 OC Fire Authority
 1 Fire Authority Road
 Irvine, California 92602
 Phone 714-573-6475

Sym.	Descr.	Date	By

MA MULLEN & ASSOCIATES
 INCORPORATED
 2019021
 ELECTRICAL ENGINEERS
 10000 Irvine Blvd, Suite B, Irvine, CA 92618
 (949) 450-1000
 FAX (949) 450-1001
 www.mullenassociates.com



- A ELECTRICAL SITE PLAN-FIREMAN TRAINING YARD**
- NOTE:
- 1 ALL LIGHT FIXTURES ARE EXISTING TO REMAIN. ONLY ONE WILL BE RELOCATED 4' TO WEST.
 - 2 THREE EXISTING LIGHT FIXTURES TO HAVE RECEPICLES MOUNTED TO THEIR RESPECTIVE RAILS.
 - 3 FOUR EXISTING INSTANT FLOODS TO HAVE RECEPICLES MOUNTED TO THEIR RESPECTIVE STRUCTURES.



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 Obligee, 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 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 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 Abgari / 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

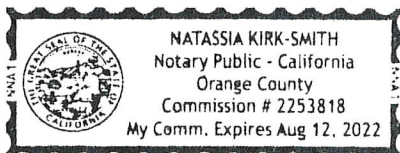
CIVIL CODE 1189

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,

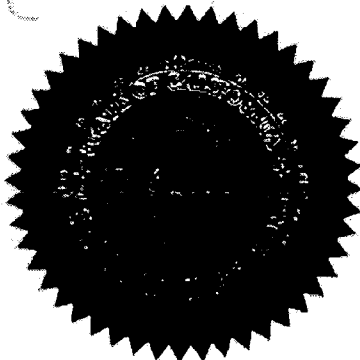
United States Fire Insurance Company

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 SECRETARY

9/18/20

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 KS 66214</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 NJ 07645</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>5 Stanton 90680 CA 7108 Katella Ave #460</u>
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	\$100.00	\$26,625.00	N
2	Division 3 - Concrete	52.38	Hour	\$100.00	\$5,237.50	N
3	Division 4 - Masonary	273.25	Hour	\$100.00	\$27,325.00	N
4	Division 5 - Metal	707.66	Hour	\$100.00	\$70,766.40	N
5	Division 6 - Framing	399.80	Hour	\$100.00	\$39,980.00	N
6	Division 7 - Roofing and Insulation	101.50	Hour	\$100.00	\$10,150.00	N
7	Division 8 - Door, Frame & Hardware	22.80	Hour	\$100.00	\$2,280.00	N
8	Division 9 - Paint & Exterior Cement Board	295.08	Hour	\$100.00	\$29,508.00	N
9	Division 11 - High Temperature Lining Systems	611.13	Hour	\$100.00	\$61,113.00	N
10	Division 13 - Simulators / Fire Trainers / Props	992.00	Hour	\$100.00	\$99,200.00	N
11		0.00	Hour	\$100.00		N
12		0.00	Hour	\$100.00		N
13		0.00	Hour	\$100.00		N
14		0.00	Hour	\$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	Division 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	Division 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%:

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LABOR RATES FEE SCHEDULE

PREVAILING WAGE RELATED ACTIVITIES

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., Unite 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

An Additional list of smaller upgrades and new projects are available upon request



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.

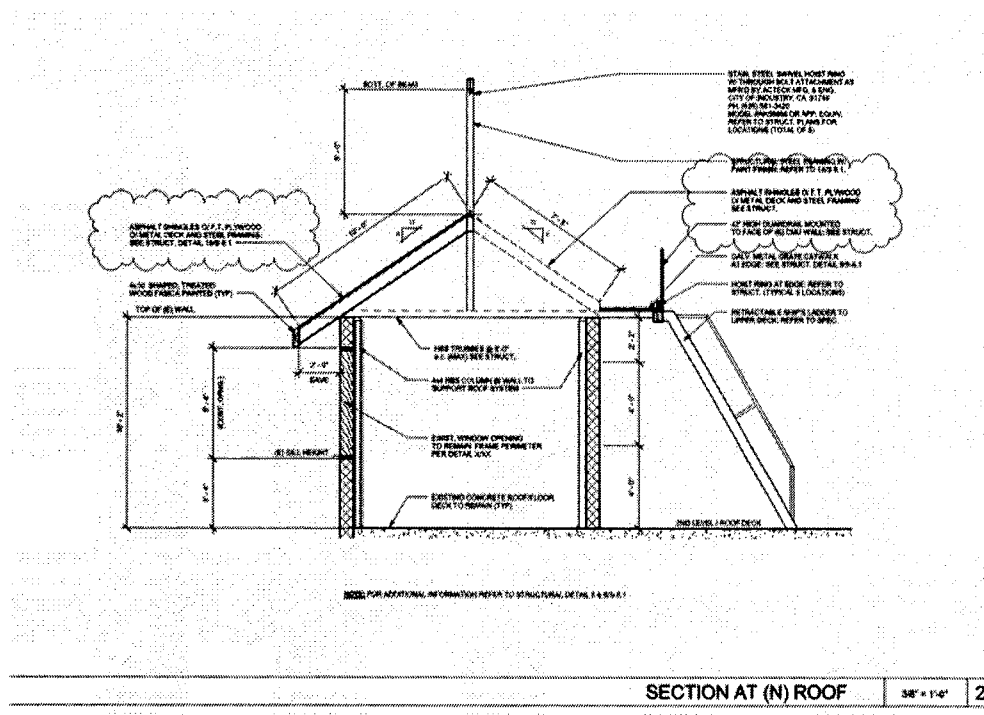
b. If shingles are required at any location, please provide a specification for the desired shingles.

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.

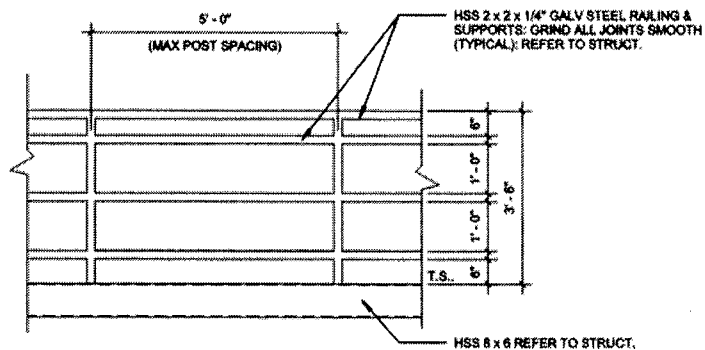
<i>Color</i>	<i>To be selected from manufacturer's list of standard colors</i>
<i>Tile Size:</i>	<i>Width: 13-1/4" x Length 40"</i>
<i>Weight:</i>	<i>242 Lbs.</i>
<i>Exposure</i>	<i>5-5/8"</i>
<i>Granule Adhesion:</i>	<i>0.45g</i>



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.

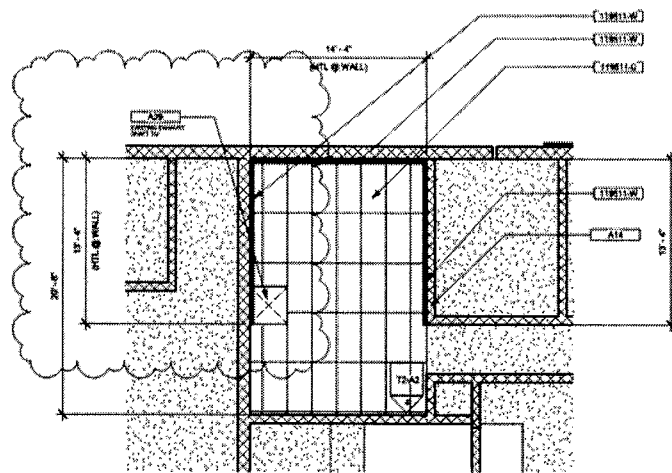


Elevation of Guardrail at Roof

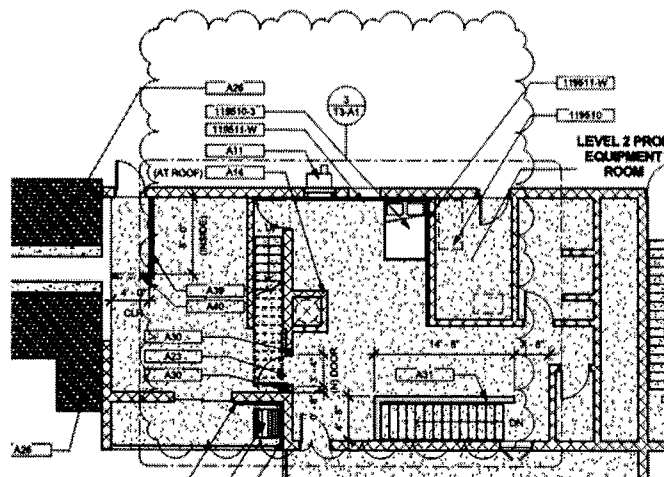
- 6) **QUESTION:** Sheet T3-A3, Note A11 is calling out for a new emergency exhaust fan but there are no mechanical or electrical drawings provided for this new fan. There are no sizes provided, no structural details for the new opening needed in the CMU wall for this fan and no specifications. Please 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.

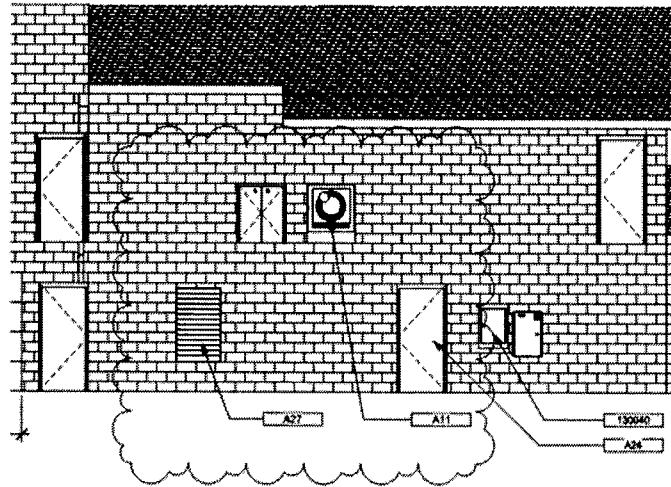
The 1st floor Kitchen Fire prop shall utilize the existing ceiling exhaust shaft to the rooftop exhaust fan. The 2nd floor Bedroom Fire prop shall utilize a new wall-mount style exhaust fan set in the existing window system which has been abandoned and not in use. The entire east wall shall have high 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.

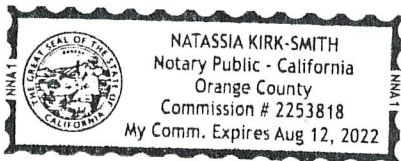
State of California)

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.

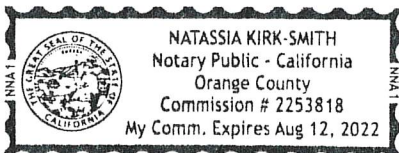
State of California)

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.

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 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.

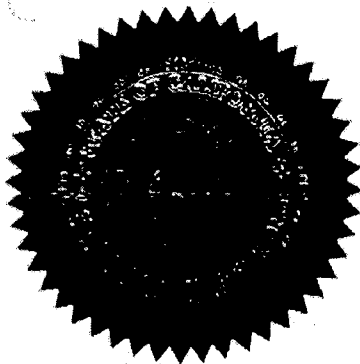
THIS CERTIFICATE is expressly conditioned upon the holder hereof now and hereafter being in
full compliance with all, and not in violation of any, of the applicable laws and lawful requirements made
under authority of the laws of the State of California as long as such laws or requirements are in effect
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®

A FARMERS GROUP COMPANY

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)

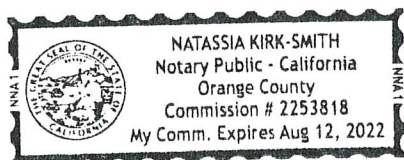
County of Orange)

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 Kirk-Smith
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could 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



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.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
PCN3, INC.

2 Business name/disregarded entity name, if different from above
as 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) ▶
☒ C Corporation
☒ S Corporation
☐ Partnership
☐ Trust/estate
☐ Other (see instructions) ▶
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.

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.)
11082 Winners Circle, Unit B

6 City, state, and ZIP code
Los Alamitos, CA, 90720

7 List account number(s) here (optional)

8 Requester's name and address (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 *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

9	5	-	4	7	3	9	9	0	9
---	---	---	---	---	---	---	---	---	---

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 ▶ *[Signature]* Date ▶ *10/5/20*

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:

- 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.

**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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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:
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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

SPECIAL INSPECTION PROGRAM SUMMARY

[illegible]

QUALITY DEVELOPMENT and Safety

[illegible]

STATEMENT OF SPECIAL INSPECTION

[illegible]

STATEMENT OF SPECIAL INSPECTION

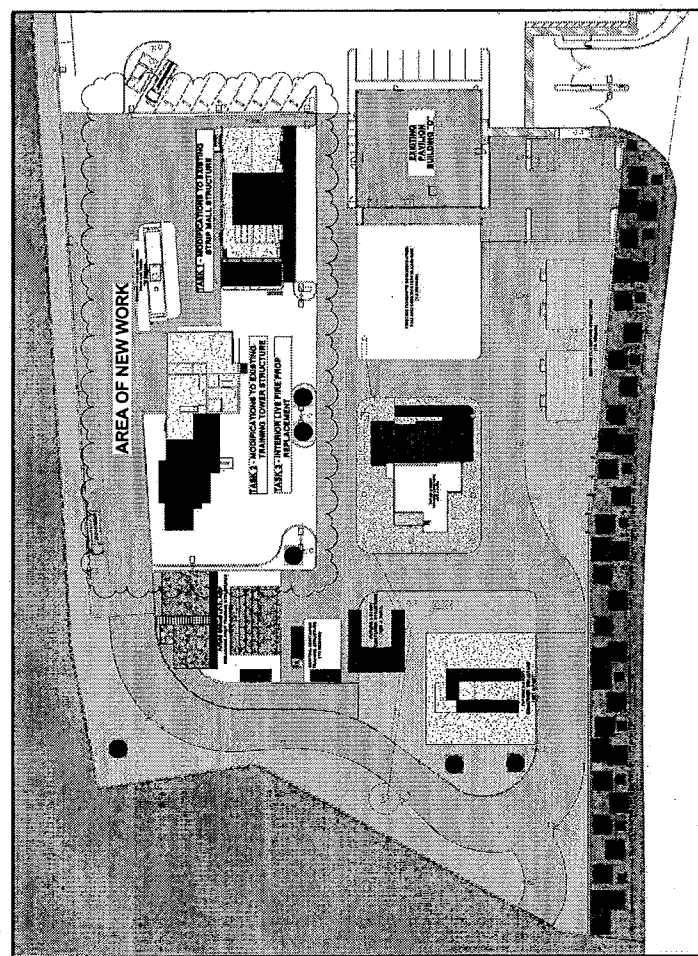
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STATEMENT OF SPECIAL INSPECTION

[illegible]

STATEMENT OF SPECIAL INSPECTION

[illegible]



OVERALL TRAINING GROUNDS SITE PLAN

BUILDING DESCRIPTION		LOCATION	ALERTS	ADDITIONAL COMMENTS
1	ADULTS	ADULTS	ADULTS	ADULTS
2	ADULTS	ADULTS	ADULTS	ADULTS
3	ADULTS	ADULTS	ADULTS	ADULTS
4	ADULTS	ADULTS	ADULTS	ADULTS
5	ADULTS	ADULTS	ADULTS	ADULTS
6	ADULTS	ADULTS	ADULTS	ADULTS
7	ADULTS	ADULTS	ADULTS	ADULTS
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97	ADULTS	ADULTS	ADULTS	ADULTS
98	ADULTS	ADULTS	ADULTS	ADULTS
99	ADULTS	ADULTS	ADULTS	ADULTS
100	ADULTS	ADULTS	ADULTS	ADULTS

PARKING AREA TABULATION						
SUBAREA	DEVELOPER	TOTAL	EXISTING	NEW	EXISTING	NEW
A	PUBLIC SPACES	2	22,279	10,849		
	5 SUPPLY	1	1,000	1,000		
B	THANAND CENTER	1	7,500	7,500		
	COMMUNICATIONS	1	1,000	1,000		
C	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
D	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
E	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
F	THANAND TOWER	1	7,500	7,500		
	PROP.	1	1,000	1,000		
G	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
H	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
I	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
J	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
K	COMMUNICATIONS	1	1,000	1,000		
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DC	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DD	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DE	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DF	COMMUNICATIONS	1	1,000	1,000		
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DG	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DH	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DI	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DJ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DK	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DL	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DM	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DN	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DO	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DP	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DQ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DR	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000			

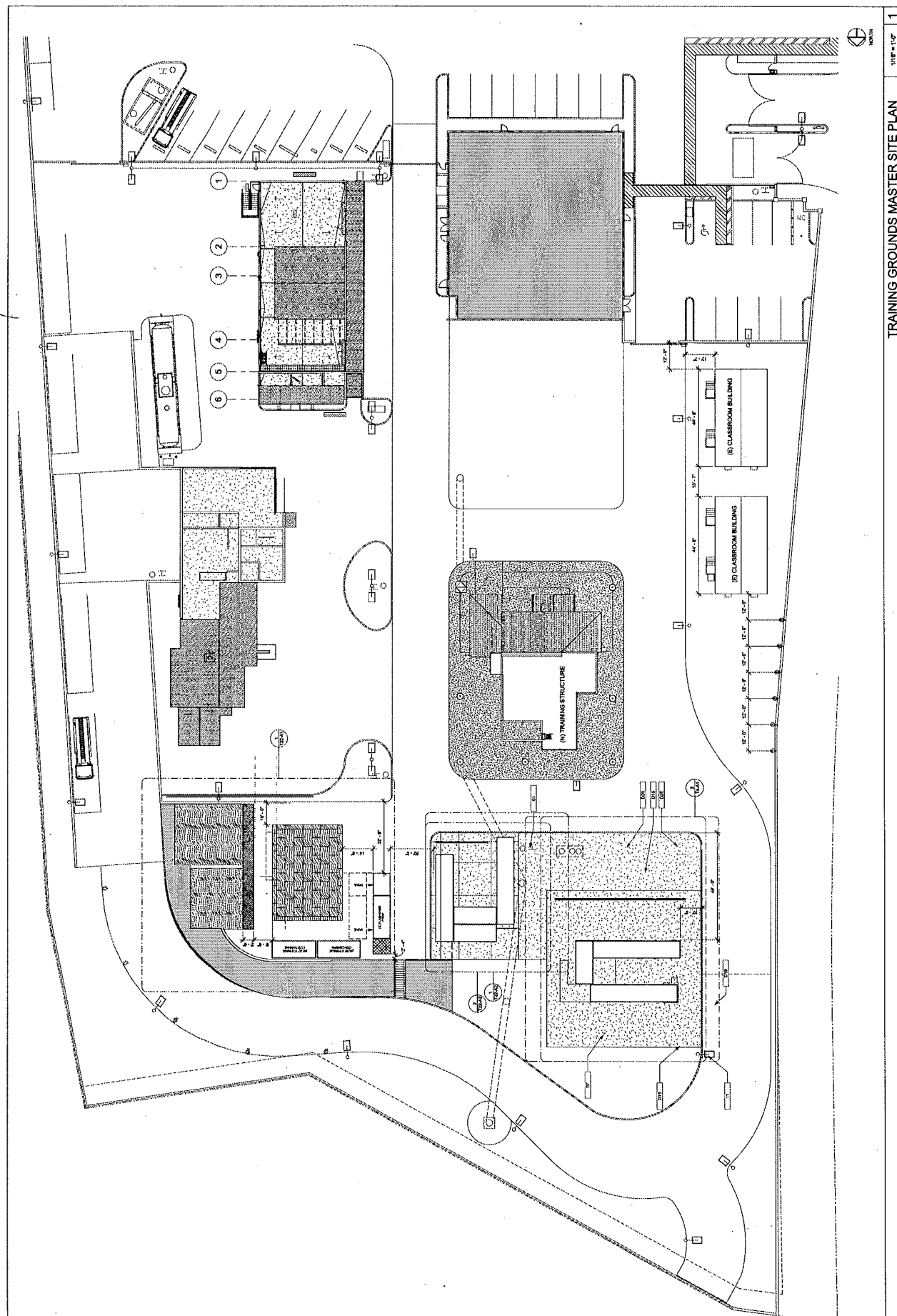
PARKING AREA TABULATION						
SUBAREA	DEVELOPER	TOTAL	EXISTING	NEW	EXISTING	NEW
A	PUBLIC SPACES	2	22,279	10,849		
	5 SUPPLY	1	1,000	1,000		
B	THANAND CENTER	1	7,500	7,500		
	COMMUNICATIONS	1	1,000	1,000		
C	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
D	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
E	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
F	THANAND TOWER	1	7,500	7,500		
	PROP.	1	1,000	1,000		
G	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
H	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
I	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
J	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
K	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
L	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
M	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
N	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
O	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
P	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
Q	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
R	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
S	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
T	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
U	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
V	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
W	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
X	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
Y	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
Z	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AA	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AB	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AC	COMMUNICATIONS	1	1,000	1,000		
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	COMMUNICATIONS	1	1,000	1,000		
AE	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AF	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AG	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AH	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AI	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AJ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AK	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AL	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AM	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AN	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AO	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AP	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AQ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AR	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AS	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AT	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AU	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AV	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AW	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AX	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AY	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
AZ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BA	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BB	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BC	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BD	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BE	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BF	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BG	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BH	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BI	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BJ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BK	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BL	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
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BN	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BO	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BP	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BQ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BR	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
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	COMMUNICATIONS	1	1,000	1,000		
BU	COMMUNICATIONS	1	1,000	1,000		
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BV	COMMUNICATIONS	1	1,000	1,000		
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BW	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
BX	COMMUNICATIONS	1	1,000	1,000		
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BY	COMMUNICATIONS	1	1,000	1,000		
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CC	COMMUNICATIONS	1	1,000	1,000		
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CD	COMMUNICATIONS	1	1,000	1,000		
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CM	COMMUNICATIONS	1	1,000	1,000		
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CN	COMMUNICATIONS	1	1,000	1,000		
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CO	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
CP	COMMUNICATIONS	1	1,000	1,000		
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CQ	COMMUNICATIONS	1	1,000	1,000		
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CR	COMMUNICATIONS	1	1,000	1,000		
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CS	COMMUNICATIONS	1	1,000	1,000		
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	COMMUNICATIONS	1	1,000	1,000		
DB	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DC	COMMUNICATIONS	1	1,000	1,000		
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DD	COMMUNICATIONS	1	1,000	1,000		
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DF	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DG	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DH	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DI	COMMUNICATIONS	1	1,000	1,000		
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DJ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DK	COMMUNICATIONS	1	1,000	1,000		
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DL	COMMUNICATIONS	1	1,000	1,000		
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DM	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DN	COMMUNICATIONS	1	1,000	1,000		
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DO	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DP	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DQ	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000	1,000		
DR	COMMUNICATIONS	1	1,000	1,000		
	COMMUNICATIONS	1	1,000			

[illegible]

ARCHITECTURAL PLANE		PROJECT INFORMATION		PROJECT INFORMATION		PROJECT INFORMATION		PROJECT INFORMATION	
NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION
1	FOUNDATION PLAN	1	FOUNDATION PLAN	1	FOUNDATION PLAN	1	FOUNDATION PLAN	1	FOUNDATION PLAN
2	FIRST FLOOR PLAN	2	FIRST FLOOR PLAN	2	FIRST FLOOR PLAN	2	FIRST FLOOR PLAN	2	FIRST FLOOR PLAN
3	SECOND FLOOR PLAN	3	SECOND FLOOR PLAN	3	SECOND FLOOR PLAN	3	SECOND FLOOR PLAN	3	SECOND FLOOR PLAN
4	THIRD FLOOR PLAN	4	THIRD FLOOR PLAN	4	THIRD FLOOR PLAN	4	THIRD FLOOR PLAN	4	THIRD FLOOR PLAN
5	FOURTH FLOOR PLAN	5	FOURTH FLOOR PLAN	5	FOURTH FLOOR PLAN	5	FOURTH FLOOR PLAN	5	FOURTH FLOOR PLAN
6	FIFTH FLOOR PLAN	6	FIFTH FLOOR PLAN	6	FIFTH FLOOR PLAN	6	FIFTH FLOOR PLAN	6	FIFTH FLOOR PLAN
7	SIXTH FLOOR PLAN	7	SIXTH FLOOR PLAN	7	SIXTH FLOOR PLAN	7	SIXTH FLOOR PLAN	7	SIXTH FLOOR PLAN
8	SEVENTH FLOOR PLAN	8	SEVENTH FLOOR PLAN	8	SEVENTH FLOOR PLAN	8	SEVENTH FLOOR PLAN	8	SEVENTH FLOOR PLAN
9	EIGHTH FLOOR PLAN	9	EIGHTH FLOOR PLAN	9	EIGHTH FLOOR PLAN	9	EIGHTH FLOOR PLAN	9	EIGHTH FLOOR PLAN
10	NINTH FLOOR PLAN	10	NINTH FLOOR PLAN	10	NINTH FLOOR PLAN	10	NINTH FLOOR PLAN	10	NINTH FLOOR PLAN
11	TENTH FLOOR PLAN	11	TENTH FLOOR PLAN	11	TENTH FLOOR PLAN	11	TENTH FLOOR PLAN	11	TENTH FLOOR PLAN
12	ROOF PLAN	12	ROOF PLAN	12	ROOF PLAN	12	ROOF PLAN	12	ROOF PLAN
13	SECTION A-A	13	SECTION A-A	13	SECTION A-A	13	SECTION A-A	13	SECTION A-A
14	SECTION B-B	14	SECTION B-B	14	SECTION B-B	14	SECTION B-B	14	SECTION B-B
15	SECTION C-C	15	SECTION C-C	15	SECTION C-C	15	SECTION C-C	15	SECTION C-C
16	SECTION D-D	16	SECTION D-D	16	SECTION D-D	16	SECTION D-D	16	SECTION D-D
17	SECTION E-E	17	SECTION E-E	17	SECTION E-E	17	SECTION E-E	17	SECTION E-E
18	SECTION F-F	18	SECTION F-F	18	SECTION F-F	18	SECTION F-F	18	SECTION F-F
19	SECTION G-G	19	SECTION G-G	19	SECTION G-G	19	SECTION G-G	19	SECTION G-G
20	SECTION H-H	20	SECTION H-H	20	SECTION H-H	20	SECTION H-H	20	SECTION H-H
21	SECTION I-I	21	SECTION I-I	21	SECTION I-I	21	SECTION I-I	21	SECTION I-I
22	SECTION J-J	22	SECTION J-J	22	SECTION J-J	22	SECTION J-J	22	SECTION J-J
23	SECTION K-K	23	SECTION K-K	23	SECTION K-K	23	SECTION K-K	23	SECTION K-K
24	SECTION L-L	24	SECTION L-L	24	SECTION L-L	24	SECTION L-L	24	SECTION L-L
25	SECTION M-M	25	SECTION M-M	25	SECTION M-M	25	SECTION M-M	25	SECTION M-M
26	SECTION N-N	26	SECTION N-N	26	SECTION N-N	26	SECTION N-N	26	SECTION N-N
27	SECTION O-O	27	SECTION O-O	27	SECTION O-O	27	SECTION O-O	27	SECTION O-O
28	SECTION P-P	28	SECTION P-P	28	SECTION P-P	28	SECTION P-P	28	SECTION P-P
29	SECTION Q-Q	29	SECTION Q-Q	29	SECTION Q-Q	29	SECTION Q-Q	29	SECTION Q-Q
30	SECTION R-R	30	SECTION R-R	30	SECTION R-R	30	SECTION R-R	30	SECTION R-R
31	SECTION S-S	31	SECTION S-S	31	SECTION S-S	31	SECTION S-S	31	SECTION S-S
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33	SECTION U-U	33	SECTION U-U	33	SECTION U-U	33	SECTION U-U	33	SECTION U-U
34	SECTION V-V	34	SECTION V-V	34	SECTION V-V	34	SECTION V-V	34	SECTION V-V
35	SECTION W-W	35	SECTION W-W	35	SECTION W-W	35	SECTION W-W	35	SECTION W-W
36	SECTION X-X	36	SECTION X-X	36	SECTION X-X	36	SECTION X-X	36	SECTION X-X
37	SECTION Y-Y	37	SECTION Y-Y	37	SECTION Y-Y	37	SECTION Y-Y	37	SECTION Y-Y
38	SECTION Z-Z	38	SECTION Z-Z	38	SECTION Z-Z	38	SECTION Z-Z	38	SECTION Z-Z
39	SECTION AA-AA	39	SECTION AA-AA	39	SECTION AA-AA	39	SECTION AA-AA	39	SECTION AA-AA
40	SECTION BB-BB	40	SECTION BB-BB	40	SECTION BB-BB	40	SECTION BB-BB	40	SECTION BB-BB
41	SECTION CC-CC	41	SECTION CC-CC	41	SECTION CC-CC	41	SECTION CC-CC	41	SECTION CC-CC
42	SECTION DD-DD	42	SECTION DD-DD	42	SECTION DD-DD	42	SECTION DD-DD	42	SECTION DD-DD
43	SECTION EE	43	SECTION EE	43	SECTION EE	43	SECTION EE	43	SECTION EE
44	SECTION FF	44	SECTION FF	44	SECTION FF	44	SECTION FF	44	SECTION FF
45	SECTION GG	45	SECTION GG	45	SECTION GG	45	SECTION GG	45	SECTION GG
46	SECTION HH	46	SECTION HH	46	SECTION HH	46	SECTION HH	46	SECTION HH
47	SECTION II	47	SECTION II	47	SECTION II	47	SECTION II	47	SECTION II
48	SECTION JJ	48	SECTION JJ	48	SECTION JJ	48	SECTION JJ	48	SECTION JJ
49	SECTION KK	49	SECTION KK	49	SECTION KK	49	SECTION KK	49	SECTION KK
50	SECTION LL	50	SECTION LL	50	SECTION LL	50	SECTION LL	50	SECTION LL
51	SECTION MM	51	SECTION MM	51	SECTION MM	51	SECTION MM	51	SECTION MM
52	SECTION NN	52	SECTION NN	52	SECTION NN	52	SECTION NN	52	SECTION NN
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54	SECTION PP	54	SECTION PP	54	SECTION PP	54	SECTION PP	54	SECTION PP
55	SECTION QQ	55	SECTION QQ	55	SECTION QQ	55	SECTION QQ	55	SECTION QQ
56	SECTION RR	56	SECTION RR	56	SECTION RR	56	SECTION RR	56	SECTION RR
57	SECTION SS	57	SECTION SS	57	SECTION SS	57	SECTION SS	57	SECTION SS
58	SECTION TT	58	SECTION TT	58	SECTION TT	58	SECTION TT	58	SECTION TT
59	SECTION UU	59	SECTION UU	59	SECTION UU	59	SECTION UU	59	SECTION UU
60	SECTION VV	60	SECTION VV	60	SECTION VV	60	SECTION VV	60	SECTION VV
61	SECTION WW	61	SECTION WW	61	SECTION WW	61	SECTION WW	61	SECTION WW
62	SECTION XX	62	SECTION XX	62	SECTION XX	62	SECTION XX	62	SECTION XX
63	SECTION YY	63	SECTION YY	63	SECTION YY	63	SECTION YY	63	SECTION YY
64	SECTION ZZ	64	SECTION ZZ	64	SECTION ZZ	64	SECTION ZZ	64	SECTION ZZ
65	SECTION AA-AA	65	SECTION AA-AA	65	SECTION AA-AA	65	SECTION AA-AA	65	SECTION AA-AA
66	SECTION BB-BB	66	SECTION BB-BB	66	SECTION BB-BB	66	SECTION BB-BB	66	SECTION BB-BB
67	SECTION CC-CC	67	SECTION CC-CC	67	SECTION CC-CC	67	SECTION CC-CC	67	SECTION CC-CC
68	SECTION DD-DD	68	SECTION DD-DD	68	SECTION DD-DD	68	SECTION DD-DD	68	SECTION DD-DD
69	SECTION EE	69	SECTION EE	69	SECTION EE	69	SECTION EE	69	SECTION EE
70	SECTION FF	70	SECTION FF	70	SECTION FF	70	SECTION FF	70	SECTION FF
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72	SECTION HH	72	SECTION HH	72	SECTION HH	72	SECTION HH	72	SECTION HH
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157	SECTION OO	15							

[illegible]

EXISTING FACILITY PARKING TABULATION	EXISTING FACILITY BUILDING DESCRIPTIONS	TASK DESCRIPTIONS	SHEET INDEX
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TRAINING GROUNDS MASTER SITE PLAN

$1/16 = 1.0$	1
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1

Key Value	Keywords Text
01	EXISTING FIRE HYDRANT; PROTECT IN PLACE
07	NEW CONCRETE SLAB & FOUNDATION
11	RELOCATED EXISTING LIGHT POLE WITH NEW CONCRETE BASE; SEE DETAIL XXXX
D15	REMOVE (E) CHAIN LINK FENCING, SCREEN AND FOOTINGS
D19	REMOVE (F) SALVAGE (E) LIGHT POLE. REMOVE CONCRETE BASE
D20	REMOVE (F) CURB AND GUTTER; REFER TO CIVIL PLANS

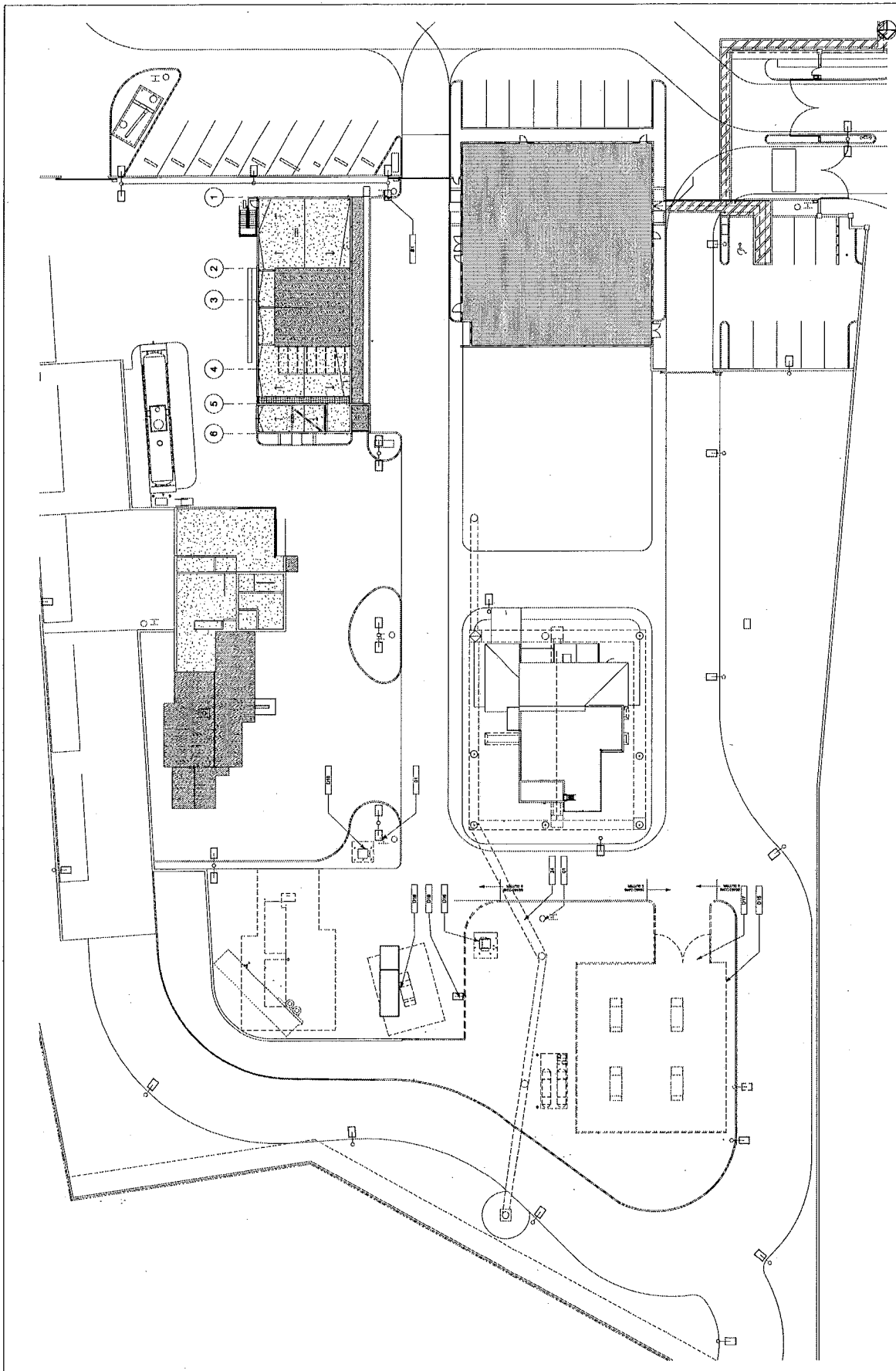
KEYNOTES

SITE PLAN NOTES



SITE DEMOLITION NOTES

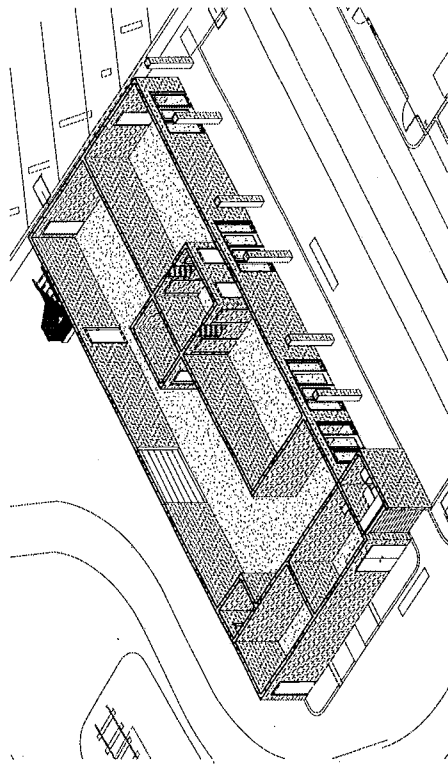
KEYNOTES



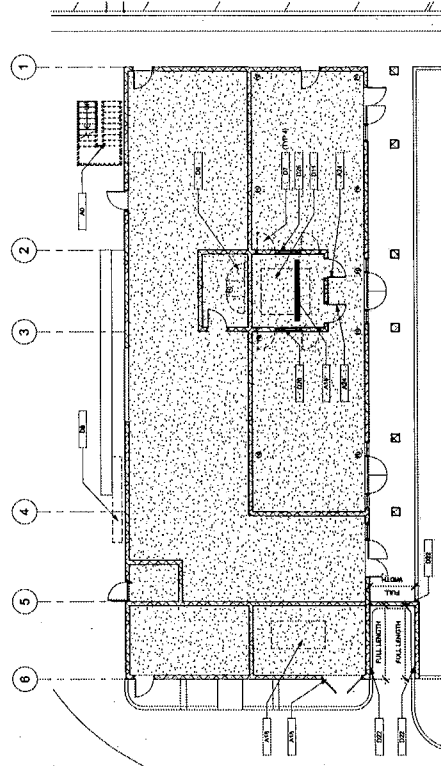
TRAINING GROUNDS SITE DEMOLITION PLAN
 1/8" = 1'-0"

1. CONTRACTOR SHALL VERIFY THE EXISTING SITE AND REMOVAL OF EXISTING CONDITIONS PRIOR TO DEMOLITION. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE LATEST AVAILABLE ELECTRONIC AND PRINTED EDITIONS OF THE CALIFORNIA BUILDING CODE AND ALL APPLICABLE ORDINANCES.
2. DEMOLITION SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME AND SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND REQUIREMENTS OF THE PROJECT MANUAL.
3. CONTRACTOR SHALL VERIFY ALL ASSOCIATED STRUCTURAL DAMAGE, SUCH AS COLL. ELECTRICAL AND MECHANICAL, PRIOR TO BEGINNING OF WORK FOR DEMOLITION.
4. CONTRACTOR SHALL VERIFY THE EXISTING SITE AND REMOVAL OF EXISTING CONDITIONS PRIOR TO DEMOLITION. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE LATEST AVAILABLE ELECTRONIC AND PRINTED EDITIONS OF THE CALIFORNIA BUILDING CODE AND ALL APPLICABLE ORDINANCES.
5. CONTRACTOR SHALL VERIFY THE EXISTING SITE AND REMOVAL OF EXISTING CONDITIONS PRIOR TO DEMOLITION. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE LATEST AVAILABLE ELECTRONIC AND PRINTED EDITIONS OF THE CALIFORNIA BUILDING CODE AND ALL APPLICABLE ORDINANCES.
6. CONTRACTOR SHALL VERIFY THE EXISTING SITE AND REMOVAL OF EXISTING CONDITIONS PRIOR TO DEMOLITION. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE LATEST AVAILABLE ELECTRONIC AND PRINTED EDITIONS OF THE CALIFORNIA BUILDING CODE AND ALL APPLICABLE ORDINANCES.

Key Value	Keynote Text
D1	EXISTING FIRE EXITS/SAFE PROTECT IN PLACE
D2	EXISTING UNDERGROUND CONFINED SPACE PROTECT IN PLACE
D15	REMOVE (E) CHAIN LINK FENCING, BARRIER AND FOOTING
D16	REMOVE (E) CHAIN LINK FENCING, BARRIER AND FOOTING
D17	REMOVE (E) CHAIN LINK FENCING, BARRIER AND FOOTING
D18	REMOVE (E) LIVE FIRE CAR PROOF AND INFRASTRUCTURE
D19	REMOVE & SALVAGE (E) LIGHT POLE, REMOVE CONCRETE BASE
D20	



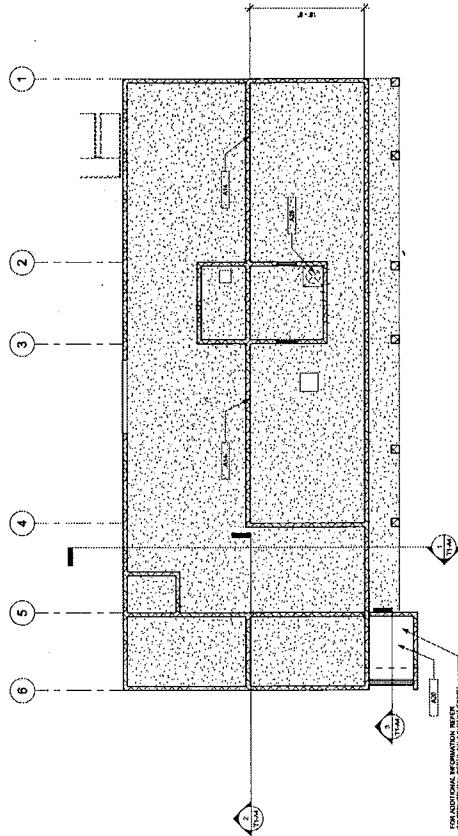
1st LEVEL ISOMETRIC FLOOR PLAN



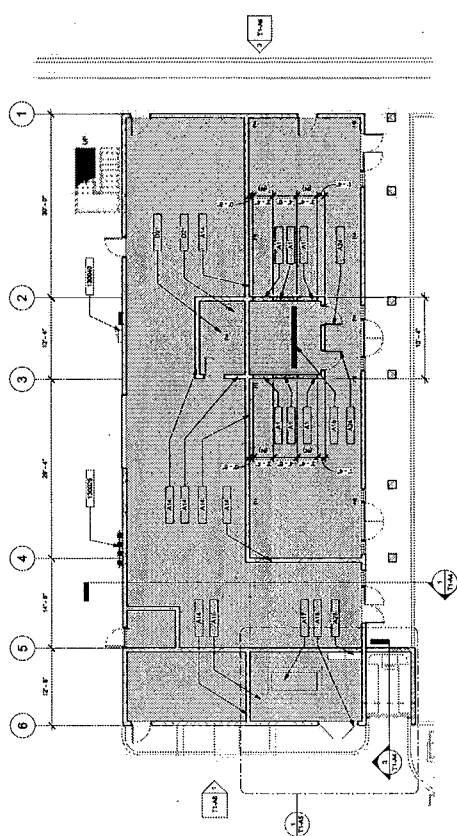
1st LEVEL DEMOLITION PLAN

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KEYNOTES



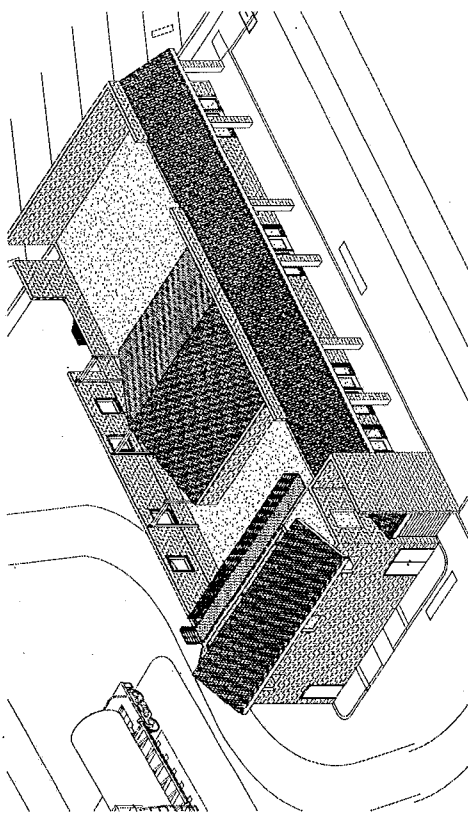
1st LEVEL REFLECTED CEILING PLAN



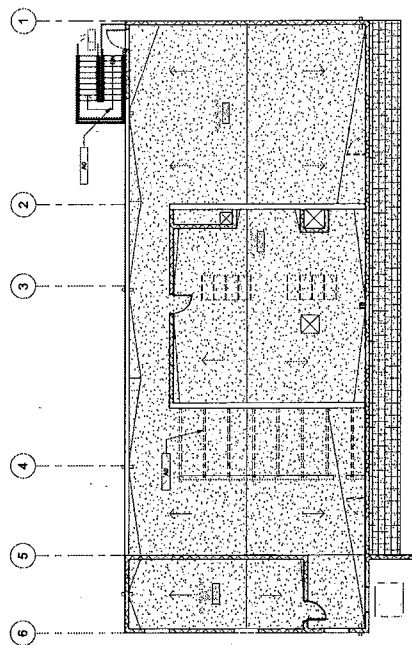
1st LEVEL MODIFICATION PLAN

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TASK 3: STRIP MALL MODIFICATION GENERAL NOTES



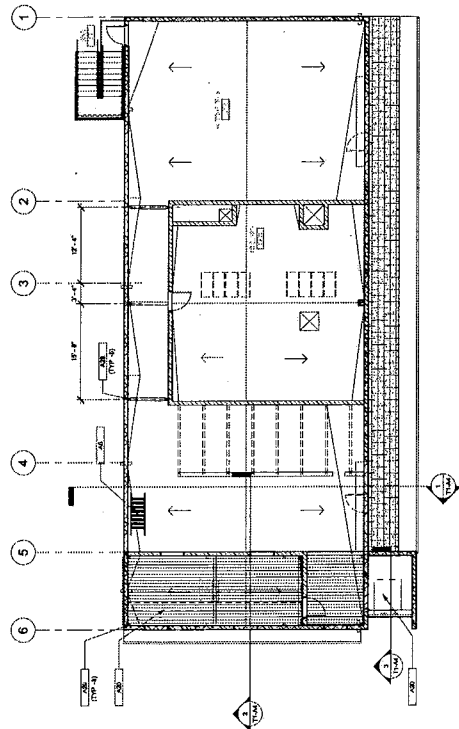
2nd LEVEL ISOMETRIC FLOOR PLAN



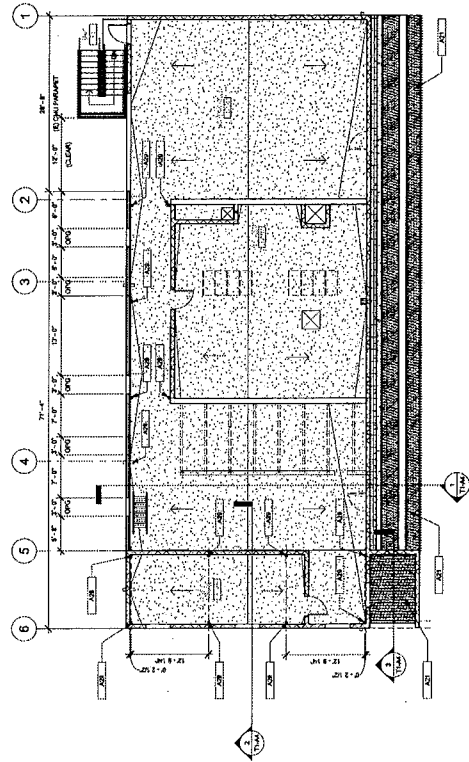
2nd LEVEL DEMOLITION PLAN

Key Value	Keynote Text
A0	EXISTING CONSTRUCTIONS PROTECT IN PLACE
A5	NEW RETRACTABLE SHIP LADDER AT WALL; REFER TO DETAIL REFERENCE
A30	NEW STRUCTURAL FRAMING, PAINT FINISH; REFER TO STRUCTURAL PLANS
A31	NEW SLOPED ROOF SECTION; REFER TO DETAILS AND STRUCTURAL PLANS
A32	NEW STEEL COLUMN; PAINT FINISH; REFER TO STRUCTURAL PLANS

KEYNOTES



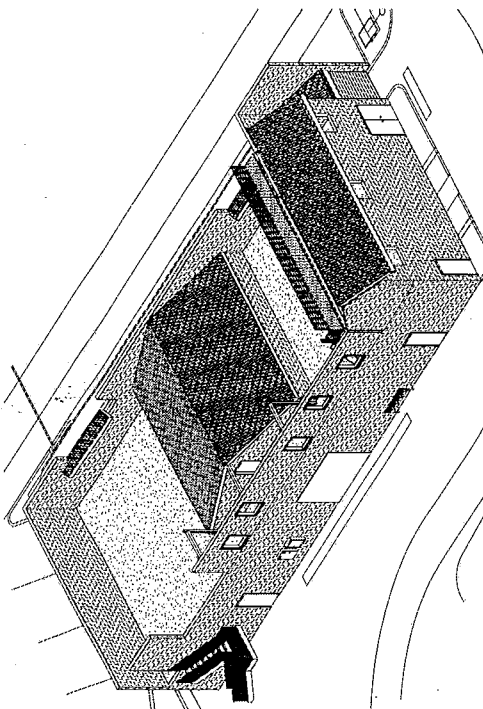
2nd LEVEL REFLECTED CEILING PLAN



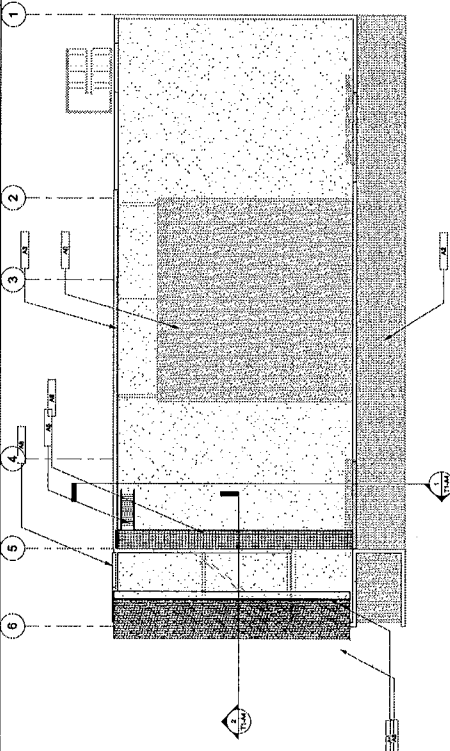
2nd LEVEL MODIFICATION PLAN

1. CONNECTION SHALL EXPOSE THE SUBSTRATE WITH ALL EXISTING CONDUITS PRIOR TO REPAIRMENT OF ALL ANTS. UNDESIRABLE SHALL BE REWORKED TO BE ACCEPTABLE AND REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE AND REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE.
2. EXISTING ANTS AND INSULATION LIMITS TO BE REMOVED TO EXPOSE THE SUBSTRATE. ALL REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE AND REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE.
3. EXISTING ANTS AND INSULATION LIMITS TO BE REMOVED TO EXPOSE THE SUBSTRATE. ALL REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE AND REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE.
4. PRIOR TO REPAIRING ANTS, CONSTRUCTION SHALL CONFIRM SUB-SURFACE UTILITIES TO AVOID DAMAGE TO EXISTING UTILITIES.
5. ALL WORK INCLUDING REPAIRS TO EXISTING UTILITIES SHALL BE MADE IN A SAFE MANNER.
6. CONSTRUCTION SHALL EXPOSE THE SUBSTRATE WITH ALL EXISTING CONDUITS PRIOR TO REPAIRMENT OF ALL ANTS. UNDESIRABLE SHALL BE REWORKED TO BE ACCEPTABLE AND REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE.
7. EXISTING ANTS AND INSULATION LIMITS TO BE REMOVED TO EXPOSE THE SUBSTRATE. ALL REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE AND REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE.
8. CONSTRUCTION SHALL EXPOSE THE SUBSTRATE WITH ALL EXISTING CONDUITS PRIOR TO REPAIRMENT OF ALL ANTS. UNDESIRABLE SHALL BE REWORKED TO BE ACCEPTABLE AND REPAIRS TO BE MADE TO THE SUBSTRATE SHALL BE REWORKED TO BE ACCEPTABLE.

TASK 3: STRIP MALL MODIFICATION GENERAL NOTES



ROOF LEVEL ISOMETRIC FLOOR PLAN

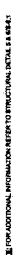


ROOF LEVEL MODIFICATION PLAN

6. CONTRACTOR SHALL VERIFY STRUCTURAL DEVIATIONS AND RETURN A CONNECTION WITH THE CONTRACTOR'S SIGNATURE AND DATE TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE ARCHITECT'S REVIEW SHALL BE LIMITED TO THE REVIEW OF THE INFORMATION PROVIDED BY THE CONTRACTOR AND SHALL NOT CONSTITUTE AN ENDORSEMENT OF THE CONTRACTOR'S INFORMATION OR A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED BY THE CONTRACTOR.
7. ALL ROOF PLYWOOD SHALL BE THE RELATED PLYWOOD, CLAS 1, WITH A MINIMUM GRADE SPAN RATING OF 240. ALL ROOF PLYWOOD SHALL BE THE RELATED PLYWOOD, CLAS 1, WITH A MINIMUM GRADE SPAN RATING OF 240. ALL ROOF PLYWOOD SHALL BE THE RELATED PLYWOOD, CLAS 1, WITH A MINIMUM GRADE SPAN RATING OF 240. ALL ROOF PLYWOOD SHALL BE THE RELATED PLYWOOD, CLAS 1, WITH A MINIMUM GRADE SPAN RATING OF 240.

KEYNOTES

Key Value	Keyword Text
A0	EXISTING CONSTRUCTION; PROTECT IN PLACE
A2	NEW MANSARD ROOF SYSTEM OVER (E) SLOPING ROOF; REFER TO DETAILS
A3	NEW FRAMED WALL SYSTEM TYPICAL (F) CMU WALL; REFER TO DETAILS
A5	NEW RETRACTABLE SHIP LAGOONAL WALL; REFER TO DETAIL REFERENCE
A6	NEW RETRACTABLE SHIP LAGOONAL WALL; REFER TO DETAIL REFERENCE
A8	NEW POSE MANSARD; REFER TO DETAIL 2-4.3 STRUCTURAL
A9	NEW POSE MANSARD; REFER TO DETAIL 2-4.3 STRUCTURAL



SECTION AT (N) ROOF

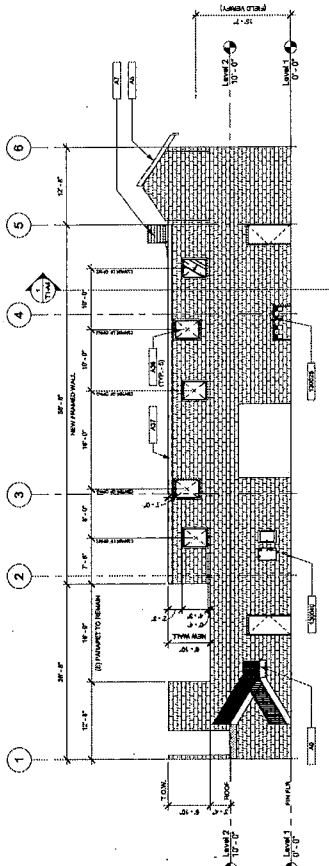


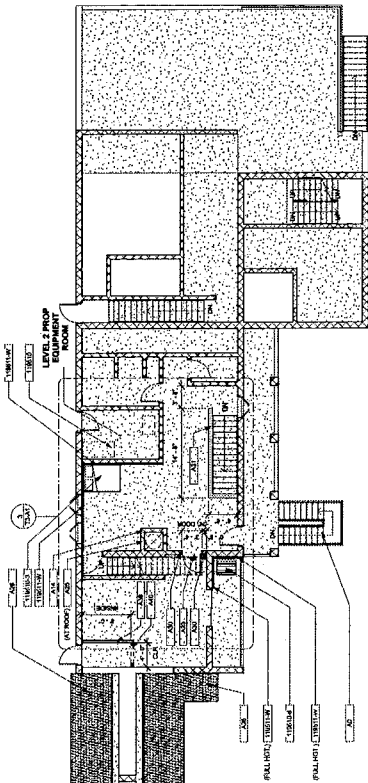
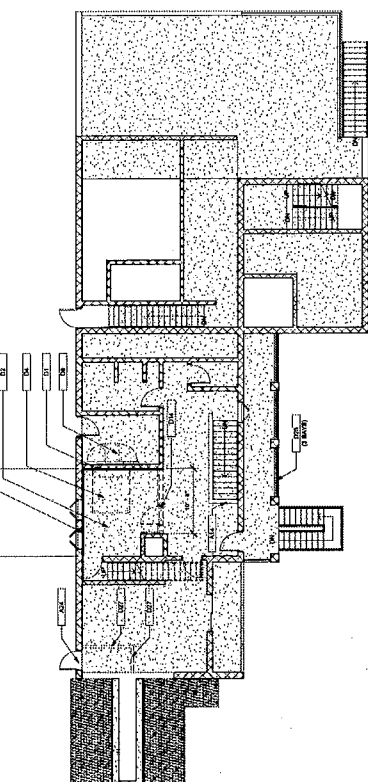
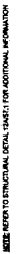
NOTE: FOR ADDITIONAL INFORMATION REFER TO STRUCTURAL DETAIL C-2.2.

4. PRIOR TO ANY FACILITY WORK, CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE UTILITIES TO AVOID DAMAGE AND/OR INTERRUPTION.
5. CONTRACTOR SHALL BE AWARE THAT THE FACILITY WILL REMAIN IN USE DURING PLANNED CONSTRUCTION.

TASK 3: STRIP MALL MODIFICATION GENERAL NOTES

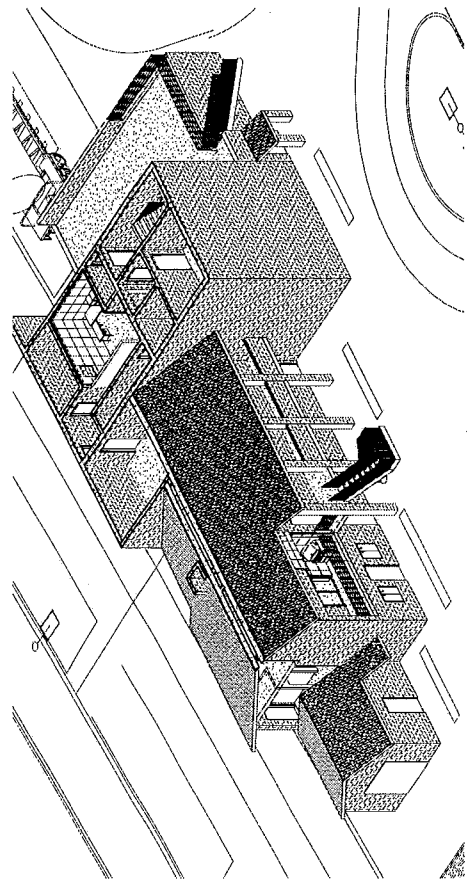
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	<div>STRIP MALL EAST ELEVATION</div> <div>1/8" = 1'-0"</div> <div>4</div>	<div>STRIP MALL WEST ELEVATION</div> <div>1/8" = 1'-0"</div> <div>2</div> <div> <div>Key Value</div> <div>Key Note</div> </div> <div> <div>13002S</div> <div>(N) WALL EXTERIOR WALL MOUNTED GAS METER MANIFOLD PROP</div> </div> <div> <div>13004D</div> <div>(N) WALL EXTERIOR WALL MOUNTED REMILATED ELECTRICAL PANEL PROP</div> </div> <div> <div>A2</div> <div>NEW GALVANIZED CLANDERINE FACE MOUNTED ROOF REFER TO DETAILS</div> </div> <div> <div>A7</div> <div>NEW GALVANIZED CLANDERINE FACE MOUNTED ROOF REFER TO DETAILS</div> </div> <div> <div>A18</div> <div>EXISTING ALUM DOORS MOUNT PER DETAIL A18A</div> </div> <div> <div>A19</div> <div>NEW OVERHEAD COILING DOOR UNIT REFER TO DETAILS 1-STD-4</div> </div> <div> <div>A21</div> <div>NEW SLOPED ROOF SECTION REFER TO DETAILS AND STRUCTURAL</div> </div> <div> <div>A35</div> <div>EXISTING OPENING FRAMED REFER TO DETAIL STD-5</div> </div> <div> <div>A37</div> <div>EXPOSED STEEL BEAM PER STRUCTURAL PAINT FINISH</div> </div>
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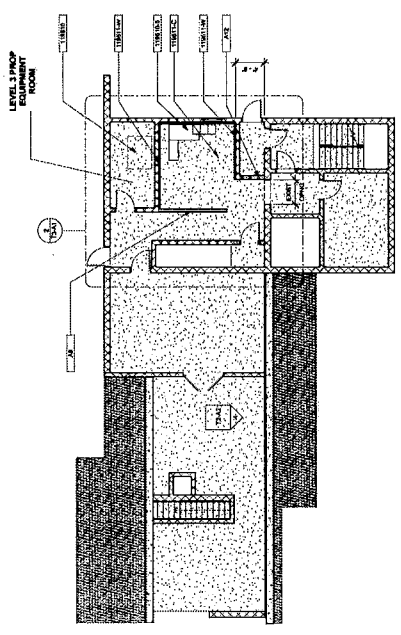
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KEYNOTES

TASK 5: TOWER MODIFICATION GENERAL NOTES



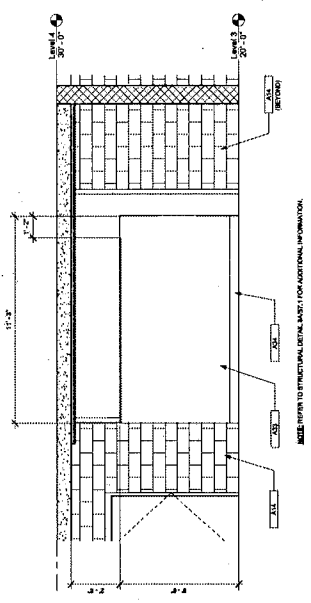
3rd LEVEL ISOMETRIC FLOOR PLAN 3/20" = 1'-0"



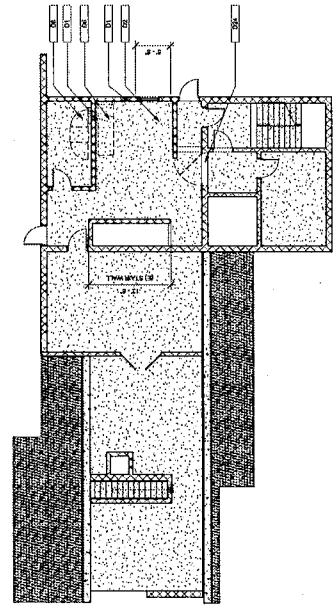
3rd LEVEL MODIFICATION PLAN 3/20" = 1'-0"

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
3. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
4. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
5. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
6. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
7. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
8. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
9. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.
10. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE BUILDING, MECHANICAL, ELECTRICAL, AND PLUMBING CODES AND STANDARDS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.

TASK 5: TOWER MODIFICATION GENERAL NOTES



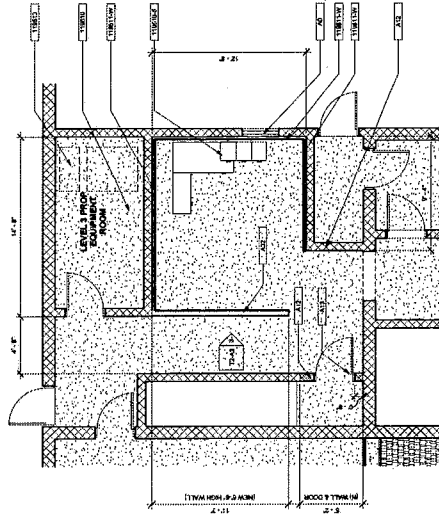
3rd LEVEL INTERIOR ELEVATION AT NEW OFFICE PROP WALL 3/20" = 1'-0"



3rd LEVEL DEMOLITION PLAN 3/20" = 1'-0"

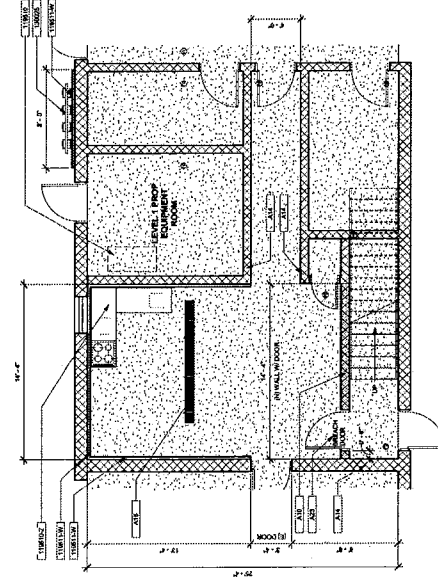
Key Value	Key Note	Key Value	Key Note
1181D	NEW LIVE FIRE PROP EQUIPMENT, CABINET & INFRASTRUCTURE. REFER TO 1181D.	A33	EXTERIOR FIBER CEMENT WALL BOARD REFER TO DETAIL.
1181D.5	NEW CLASS "B" LIVE FIRE OFFICE DESK W/ EXTENSION FLEX PROP.	A34	IF HIGH RUBBER TOPSET BASE FULL WIDTH.
1181D.6	NEW CLASS "B" HIGH TEMPERATURE CEILING LINING SYSTEM.	D1	REMOVE (B) HIGH TEMPERATURE WALL LINING AND FRAMING.
1181D.7	NEW CLASS "B" HIGH TEMPERATURE CEILING LINING SYSTEM.	D2	REMOVE (B) HIGH TEMPERATURE WALL LINING AND FRAMING.
A3	NEW 12" HIGH FRAMED WALL. REFER TO DETAILS.	D3	REMOVE (B) KITCHEN LIVE FIRE PROP AND ASSOCIATED INFRASTRUCTURE.
A3.1	NEW CHAIR INFLAT (B) DOOR OPENING TO MATCH. REFER TO 3007.2.	D4	REMOVE (B) KITCHEN LIVE FIRE PROP AND ASSOCIATED INFRASTRUCTURE.
A3.2	EXISTING INTERIOR CHAIR WALL TO REMAIN. PROTECT IN PLACE.	D5	REMOVE (B) KITCHEN LIVE FIRE PROP AND ASSOCIATED INFRASTRUCTURE.
		D6	REMOVE (B) KITCHEN LIVE FIRE PROP AND ASSOCIATED INFRASTRUCTURE.

KEYNOTES



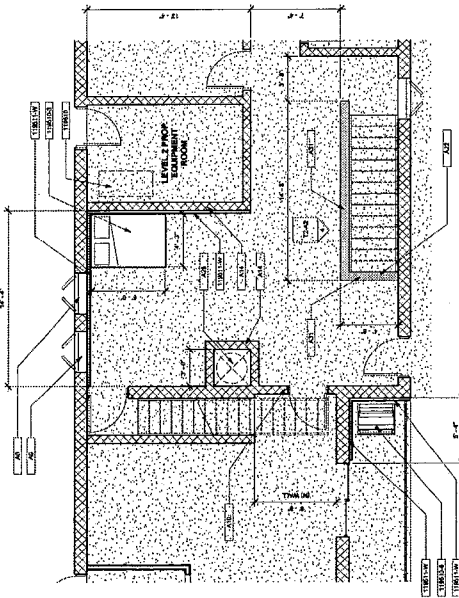
3rd LEVEL PROP REPLACEMENT PLAN

1/4" = 1'-0"	2
--------------	---



1st LEVEL PROP REPLACEMENT PLAN

1	$1/4^{\circ} = 1.0^{\circ}$
---	-----------------------------



2nd LEVEL PROP REPLACEMENT PLAN

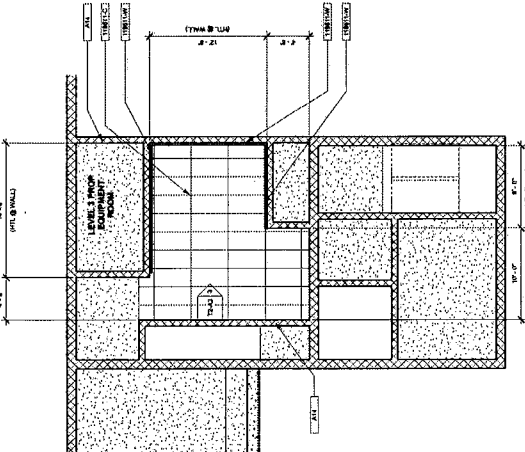
3	$1/4^{\circ} \approx 1.5^{\circ}$
---	-----------------------------------

Key Value	Keypoint Text
A13	NEW HOLLOW METAL DOOR & FRAME PAINT FINISH SEE DETAIL
A14	EXISTING INTERIOR WALL TO REMAIN. PROTECT IN PLACE
A15	EXISTING FLOOR GRAIN ASSEMBLY. PROTECT IN PLACE
A16	NEW STUD & STAIRWELL REFER TO DETAIL W10-2 AND STRUCTURAL
A17	EXISTING LIVE FLOOR ASSEMBLY. REFER TO SPECIFICATIONS
A18	NEW STUD WALL & STAIRWELL REFER TO DETAIL W10-2 AND STRUCTURAL
A19	NEW STUD WALL @ OFFICE PROP. REFER TO DETAIL T10-2 AND

[illegible]

TASK 6: PROP REPLACEMENT GENERAL NOTES

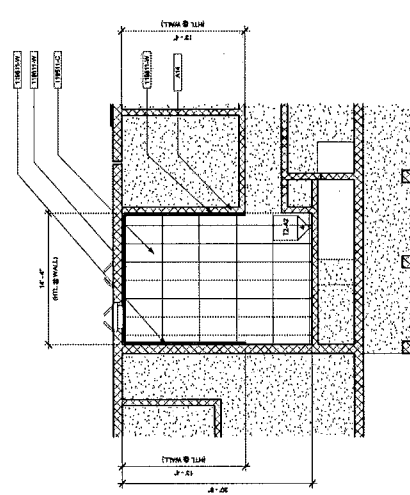
KEYNOTES



3rd LEVEL PROP CEILING PLAN

3/16" = 1'-0"

3



1st LEVEL PROP CEILING PLAN

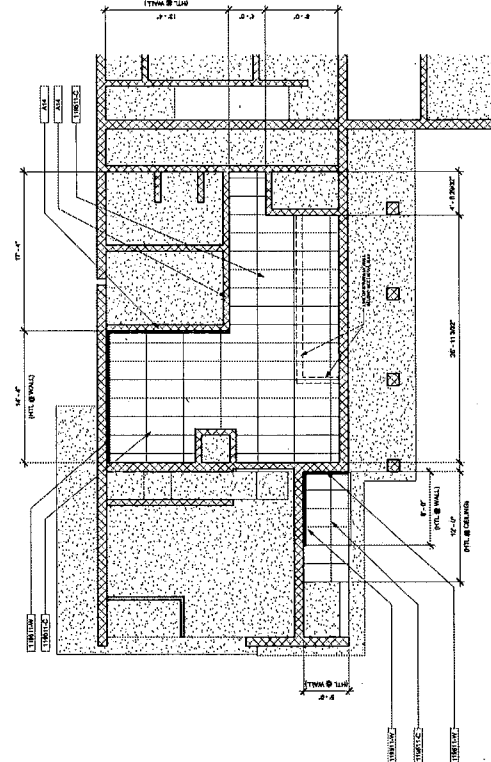
3/16" = 1'-0"

1

1. CONTRACTOR SHALL VERIFY THE EXISTING SITE AND REMAIN ALL EXISTING CONDITIONS AND RECORD THE SAME. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.
2. DIMENSIONS SHOWN ARE FOR THE ELEMENTS ON THE CEILING. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ARCHITECT.
3. CONTRACTOR SHALL VERIFY ALL AREAS OF RESTRICTION AND OBSTRUCTIONS, SUCH AS LIGHT FIXTURES, VENTILATION, AND OTHER MECHANICAL, ELECTRICAL, AND PLUMBING (MEPE) SYSTEMS, TO BE MAINTAINED OR REMOVED. ANY REMOVALS SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.
4. CONTRACTOR SHALL VERIFY THE EXISTING WALL BRAN IN USE SHOWN PLANNED CONSTRUCTION. ALL WORKING CONDITIONS SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
5. CONTRACTOR SHALL VERIFY THE EXISTING WALL BRAN IN USE SHOWN PLANNED CONSTRUCTION. ALL WORKING CONDITIONS SHALL BE MAINTAINED THROUGHOUT THE PROJECT.

KEYNOTES

TASK 6: PROP REPLACEMENT GENERAL NOTES



2nd LEVEL PROP CEILING PLAN

3/16" = 1'-0"

2

1. CONTRACTOR SHALL VERIFY THE EXISTING SITE AND REMAIN ALL EXISTING CONDITIONS AND RECORD THE SAME. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.
2. DIMENSIONS SHOWN ARE FOR THE ELEMENTS ON THE CEILING. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ARCHITECT.
3. CONTRACTOR SHALL VERIFY ALL AREAS OF RESTRICTION AND OBSTRUCTIONS, SUCH AS LIGHT FIXTURES, VENTILATION, AND OTHER MECHANICAL, ELECTRICAL, AND PLUMBING (MEPE) SYSTEMS, TO BE MAINTAINED OR REMOVED. ANY REMOVALS SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.
4. CONTRACTOR SHALL VERIFY THE EXISTING WALL BRAN IN USE SHOWN PLANNED CONSTRUCTION. ALL WORKING CONDITIONS SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
5. CONTRACTOR SHALL VERIFY THE EXISTING WALL BRAN IN USE SHOWN PLANNED CONSTRUCTION. ALL WORKING CONDITIONS SHALL BE MAINTAINED THROUGHOUT THE PROJECT.

KEYNOTES

TASK 6: PROP REPLACEMENT GENERAL NOTES

3/8" = 1'-0"

4

TOWER EAST ELEVATION

3/8" = 1'-0"

3

TOWER SOUTH ELEVATION

3/8" = 1'-0"

2

TOWER WEST ELEVATION

3/8" = 1'-0"

1

TOWER NORTH ELEVATION

KEYNOTES

Key Value	Keynote Text
11911.0-0	NEW GLASS 3" LIVE FIRE EXTERIOR BALCONY BRG PROP
11911.1-0	NEW GLASS 3" HIGH TEMPERATURE WALL LINING SYSTEM
11904.0	PROP
11904.1	IN WALL EXTERIOR WALL MOUNTED EMALATED ELECTRICAL PANEL
A11	PROP
A12	NEW CHU MNTL AT (E) DOOR OPENING TO MATCH REFER TO 3352.2 SPECN.

KEYNOTES

Key Value	Keynote Text
A13	NEW HOLLOW METAL DOOR & FRAME PAINT FINISH SEE DETAIL
A24	EXISTING HOLLOW METAL DOOR PROTECT IN PLACE
A25	EXISTING EXPOSED BRICK ROOF TO REMAIN PROTECT IN PLACE
A26	EXISTING EXPOSED BRICK ROOF TO REMAIN PROTECT IN PLACE
A27	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A28	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A29	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A30	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A31	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A32	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A33	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A34	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
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A36	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A37	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A38	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A39	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A40	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A41	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A42	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A43	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A44	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A45	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A46	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
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A58	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
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A62	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
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A64	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
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A79	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A80	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A81	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A82	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A83	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A84	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A85	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
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A97	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A98	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A99	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE
A100	EXISTING WALL COVER TO REMAIN PROTECT IN PLACE

TASK 6: PROP REPLACEMENT GENERAL NOTES

	<p>REV. NOTE: 08.2020 1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>
	<p>REV. NOTE: 08.2020 1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>
	<p>REV. NOTE: 08.2020 1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>
	<p>REV. NOTE: 08.2020 1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>	<p>1 CEILING DOOR BOTTOM 1/2\"/> </p>
	<p>REV. NOTE: 08.2020 1 DOWNSPOUT TERMINATION AT (E) SLAB 1/2\"/> </p>	<p>1 DOWNSPOUT TERMINATION AT (E) SLAB 1/2\"/> </p>	<p>1 DOWNSPOUT TERMINATION AT (E) SLAB 1/2\"/> </p>	<p>1 DOWNSPOUT TERMINATION AT (E) SLAB 1/2\"/> </p>



<p>KEY NOTE: 1/20 DETAIL NOT USED</p>	<p>KEY NOTE: 1/20 DETAIL NOT USED</p>	<p>KEY NOTE: 1/20 DETAIL NOT USED</p>	<p>KEY NOTE: 1/20 DETAIL NOT USED</p>
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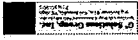
COILING DOOR TYPICAL DETAILS

COILING DOOR ELEVATION

COILING DOOR HEAD

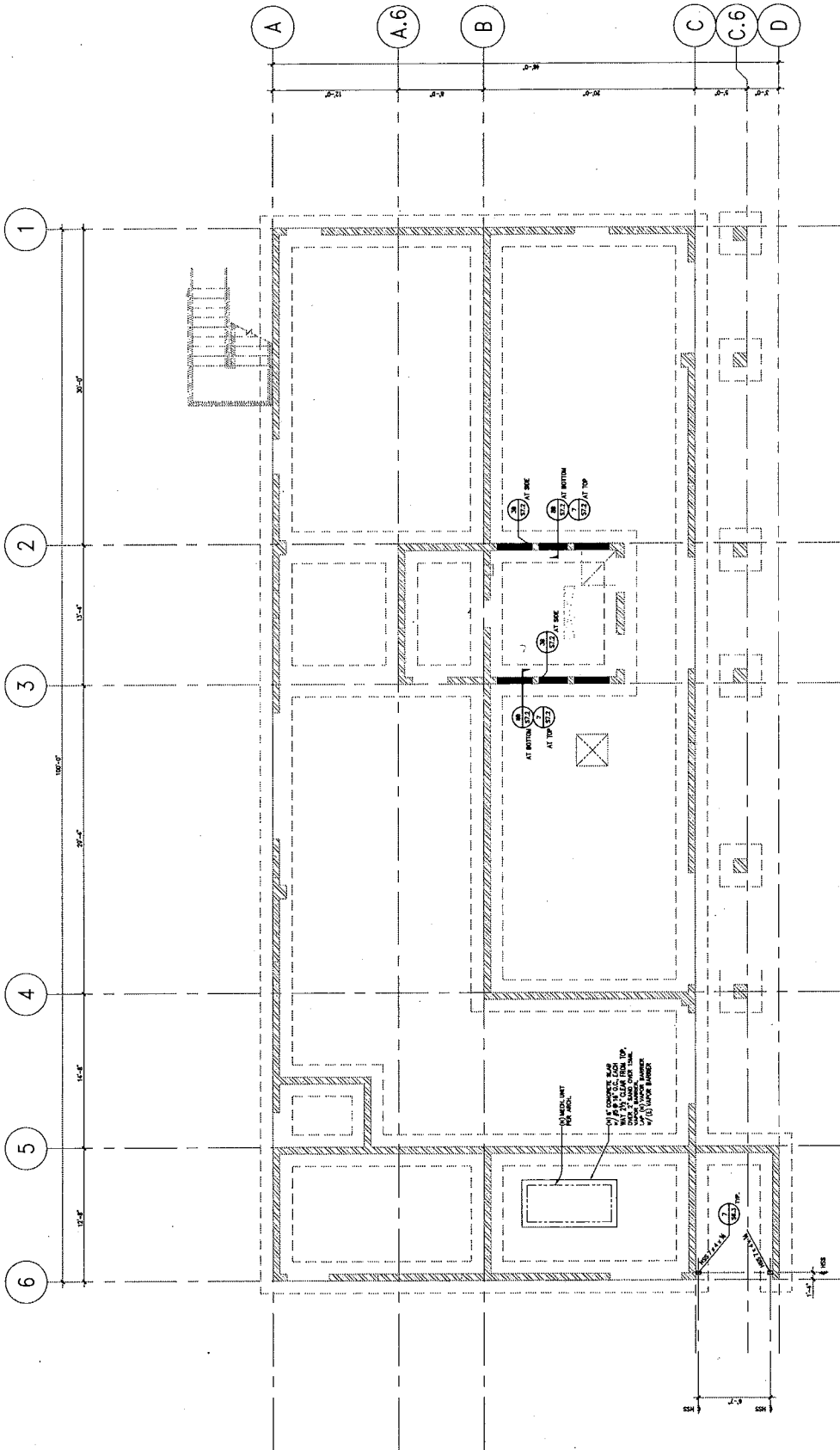
COILING DOOR BOTTOM

[illegible]



FOUNDATION PLAN

- NOTES:
1. INDICATES NEW OR EXISTING FOUNDATION WALL.
 2. INDICATES NEW METAL STRIP WALL PER TYPICAL DETAILS ON SHEET 17-1.
 3. INDICATES EXISTING GAS WALL.
 4. VERIFY ALL DIMENSIONS WITH EXISTING CONDITIONS AND AS-BUILT PLANS.





RSSE
RESEARCH & SERVICE
ENGINEERING

Orange County Fire Authority
Fire Department

ORANGE COUNTY
FIRE AUTHORITY

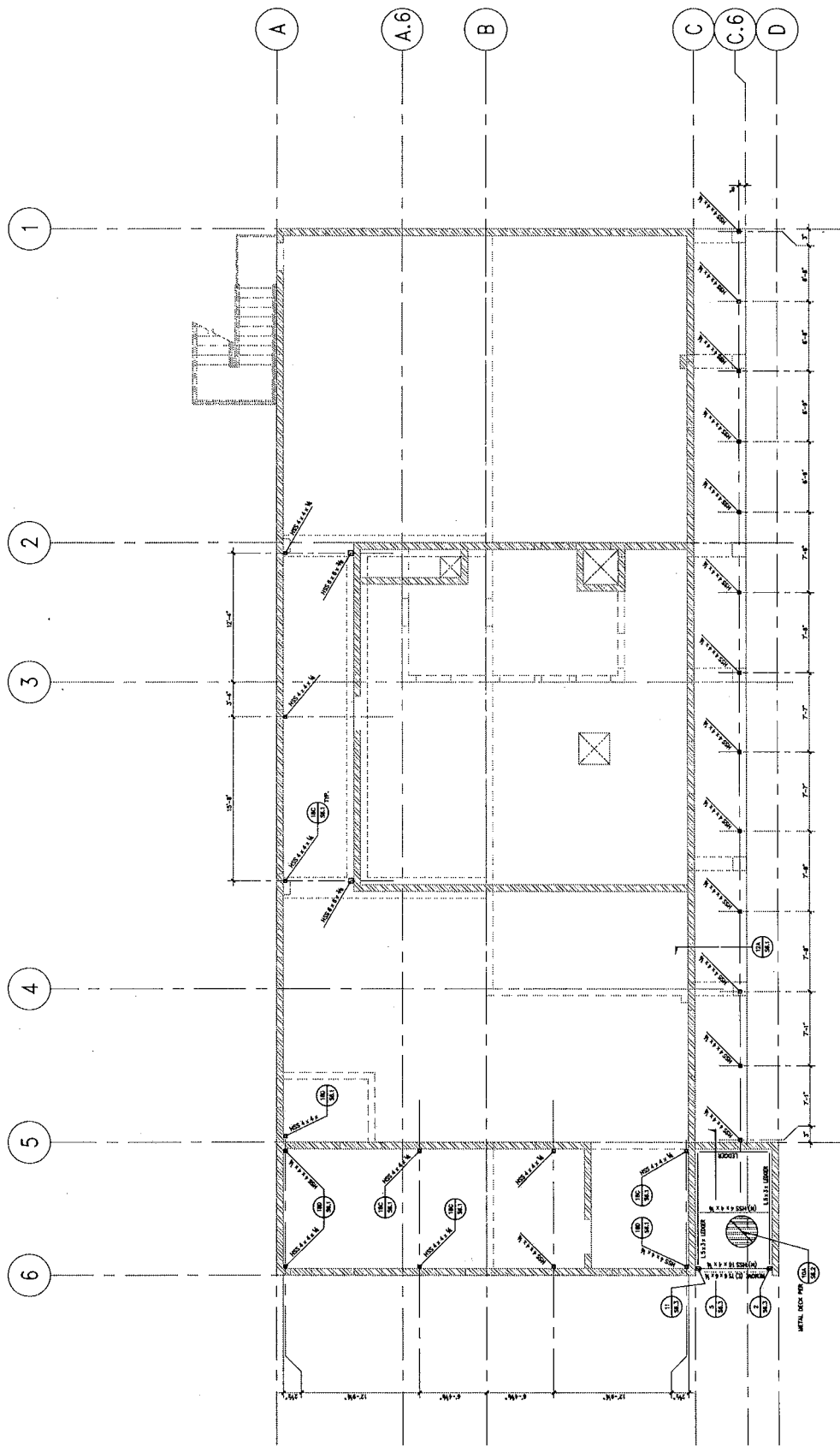


OCA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

STRIPE MALL SECOND FLOOR PLAN
May 29, 2020
SCALE: 1/8" = 1'-0"
SHEET NO. SE-2.2

SE-2.2

NOTES:
1. SEE NOTES TO SHEET SE-2.1



SECOND FLOOR PLAN



RSSE
Orange County Fire Authority

Orange County Fire Authority
Training Grounds Modifications

ORANGE COUNTY
FIRE AUTHORITY

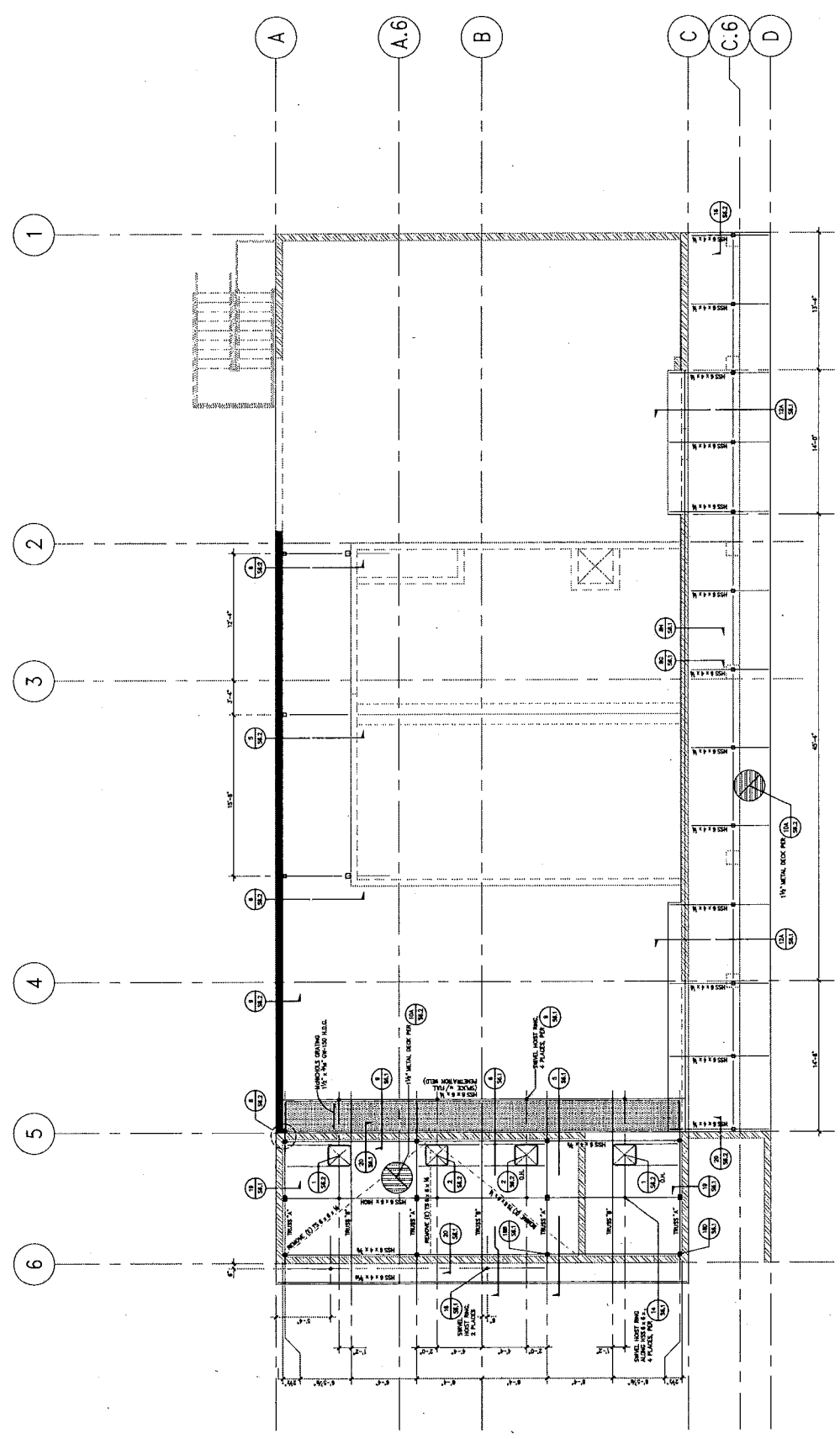


OFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

STRIPE MALL ROOF PLAN
May 19, 2008

SE-23

NOTE:
1. SEE NOTES ON SHEET "SE-24".





ORANGE COUNTY
FIRE AUTHORITY

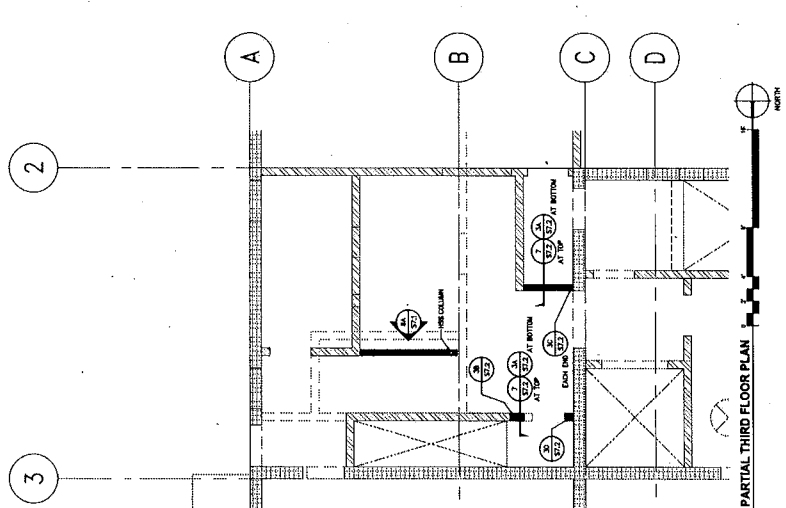
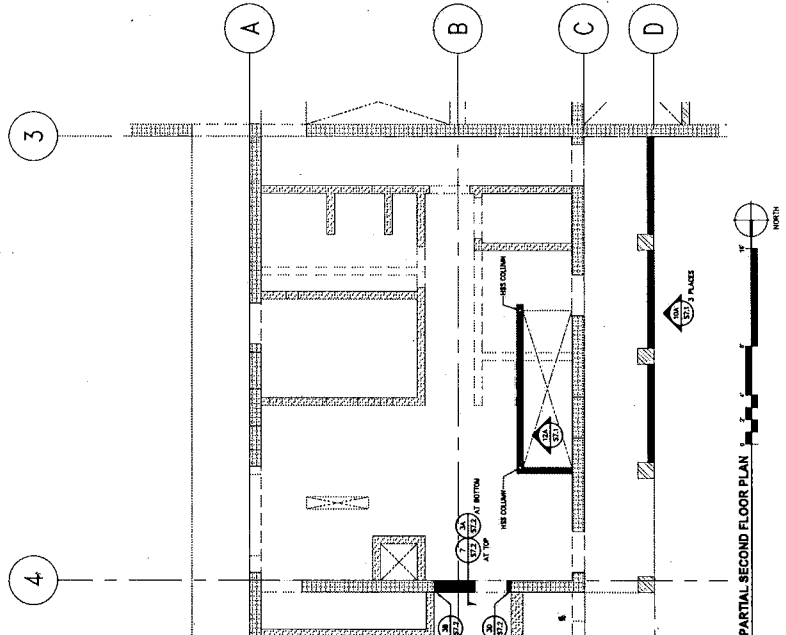
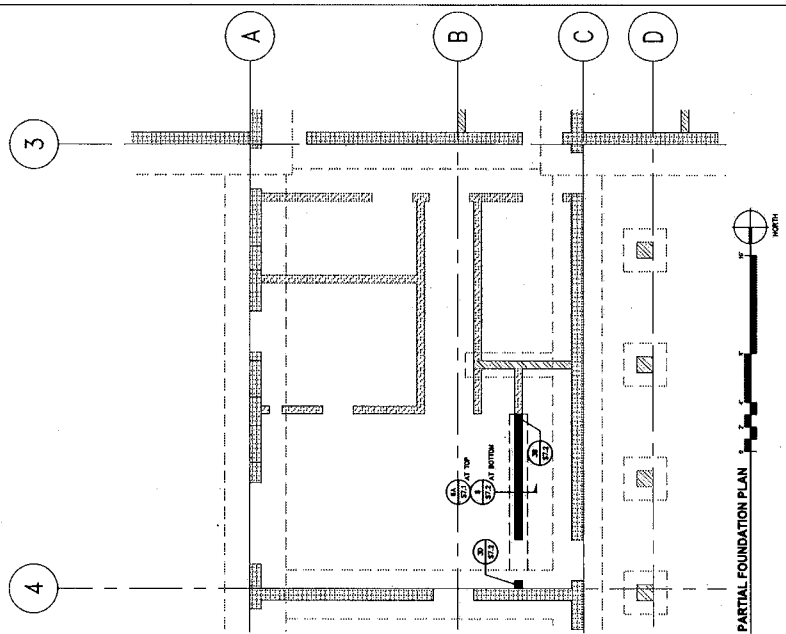
CSA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

SCALE: 1/4" = 1'-0"
DATE: 07/15/2020

SHEET NO.
SF-2.1

TOWER PARTIAL FLOOR PLANS

- NOTES:
1. INDICATES DOOR OPENING INTO AN ADJACENT WALL.
 2. INDICATES DOOR OPENING INTO A WALL WITH TYPICAL DETAILS ON BOTH SIDES.
 3. INDICATES DOOR OPENING INTO A WALL WITH TYPICAL DETAILS ON ONE SIDE.
 4. INDICATES DOOR OPENING INTO A WALL WITH TYPICAL DETAILS ON ONE SIDE.
 5. INDICATES DOOR OPENING INTO A WALL WITH TYPICAL DETAILS ON ONE SIDE.



References

1. GENERAL INFORMATION
2. IDENTIFICATION
3. PERSONAL DATA
4. EDUCATION
5. EMPLOYMENT
6. RESIDENCE
7. TRAVEL
8. RELIGION
9. INTERESTS
10. CHARACTER
11. REMARKS
12. CONCLUSION
13. RECOMMENDATION
14. REFERENCE
15. APPENDIX
16. NOTES
17. OTHER
18. REMARKS
19. REMARKS
20. REMARKS
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100. REMARKS

NOTES

- [illegible]

OF THE

- [illegible]

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- a. POINT TARGETS AND THE ACTIVITIES BEING CORRECTED.
 - b. DATE OF INSPECTION.
 - c. NAME OF INSPECTOR.
 - d. STATE OF INSPECTION, AND LOCATION (BUILDING & FLOOR LAYER).
 - e. EXISTING AND THE WORK SPECIFIED CORRECTION TO APPROVED PLANS AND SPECIFICATIONS.
 - f. LIST OF APPROVED/UNAPPROVED/INCOMPLETE, AND EXCLUSIONS OF ACTIVITIES TO APPROVED PLANS AND SPECIFICATIONS ATTACHED TO THE RFP.
 - g. CORRECTIONS TO PREVIOUSLY CITED ITEMS.
 - h. LIST OF PREVIOUS PLANS, TEST RESULTS AND ALL CORRECTIONS REQUIRED.
 - i. NAME OF THE CONTRACTOR.
 - j. NAME OF THE SUPERVISOR OF INSPECTION MATERIAL, AND SIGNATURE OF SPECIAL INSPECTOR PERFORMANCE EVALUATION.
 - k. COMMENTS.
- ALL INFORMATION SHOWN IS SUBJECT TO THE VARIATION, ALTERATION OF THE CONTRACTOR FOR CORRECTION. WORK IS PROCEEDED TO THE FINAL DESIGN OF THE PROJECT. (SEE THE PROJECT).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VARIATION, ALTERATION OF THE CONTRACTOR FOR CORRECTION OF THE WORK AND THE RESULTS OF THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VARIATION, ALTERATION OF THE CONTRACTOR FOR CORRECTION OF THE WORK AND THE RESULTS OF THE WORK.

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5. CONCLUSIONS

- [illegible]

- Downloaded from <http://ajph.org/> on November 10, 2015

CONTRACTOR RESPONSIBILITY

- [illegible]

CONNECTIONS IN THE
MATHS THE MATHS

- [illegible]

RADIOGRAPHY, UNLESS

- [illegible]

2

- 12 THE SPECIAL AGENT IN CHARGE OF THE NEW YORK OFFICE OF THE FBI HAS BEEN ADVISED THAT THE ABOVE NAMED PERSONS ARE CURRENTLY IN THE NEW YORK CITY AREA AND ARE BEING MONITORED BY THE NEW YORK OFFICE OF THE FBI. THE NEW YORK OFFICE OF THE FBI IS CURRENTLY ATTEMPTING TO LOCATE THE ABOVE NAMED PERSONS AND IS REQUESTING YOUR ASSISTANCE IN THIS REGARD.
- 13 THE NEW YORK OFFICE OF THE FBI IS CURRENTLY ATTEMPTING TO LOCATE THE ABOVE NAMED PERSONS AND IS REQUESTING YOUR ASSISTANCE IN THIS REGARD.
- 14 THE NEW YORK OFFICE OF THE FBI IS CURRENTLY ATTEMPTING TO LOCATE THE ABOVE NAMED PERSONS AND IS REQUESTING YOUR ASSISTANCE IN THIS REGARD.
- 15 THE NEW YORK OFFICE OF THE FBI IS CURRENTLY ATTEMPTING TO LOCATE THE ABOVE NAMED PERSONS AND IS REQUESTING YOUR ASSISTANCE IN THIS REGARD.

6. REFERENCES

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- [illegible]

- CERTIFICATIONS AND TESTING
IN THE APPLICABLE CODES.
- R PROJECTIONS AND
REQUIREMENTS.
- ANCE WITH THE CONSTRUCTION
- IF OTHER DETAILS OF
- SALS OF ANCHORAGE OF
- (N/A) OR NOT NEARER

THE QUALITY OF
SERVICES
YOU CAN
COUNT ON

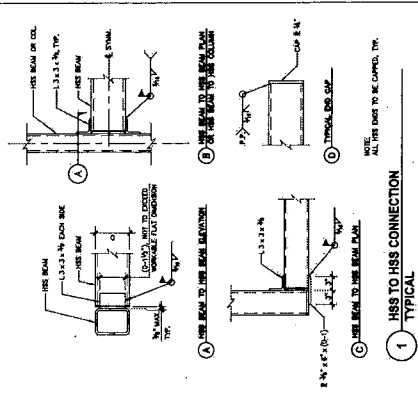
- THE QUALITY AND
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- THE WORK
IT IS OF THE GRADE
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IS FOLLOWS:
- APPROVED INSPECTION
THE REAR BODY

Abstract

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- WRAPPING WITH
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AND FASTENERS
E. SIZE PENETRATION,

- 11




1 HSS TO HSS CONNECTION
TYPICAL


NOTES:
ALL TIES ARE TO BE CAPTED TYP.




2 TYPICAL END JOINT




3 HSS TO HSS CONNECTION
TYPICAL



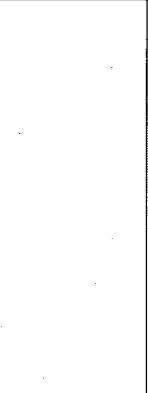
4 HSS TO HSS CONNECTION
TYPICAL



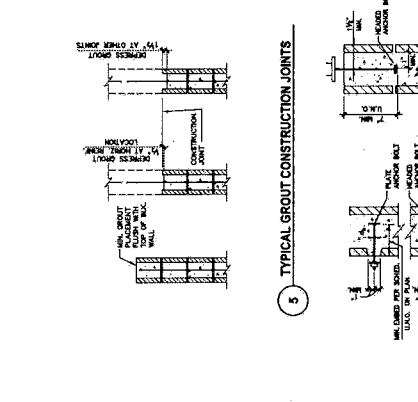
5 TYPICAL GROUT CONSTRUCTION JOINTS



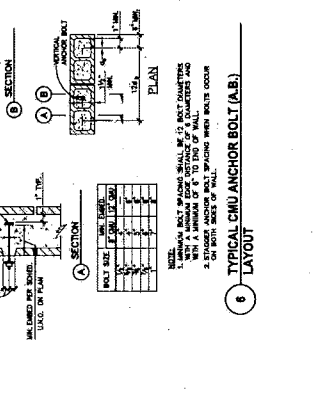
6 TYPICAL CMU ANCHOR BOLT (A.B.)




7 TYPICAL CMU ANCHOR BOLT (A.B.)




17 STANDARD HOOKS
TYPICAL




18 REBAR OFFSET AND LAP SPlice
IN CONCRETE - TYPICAL




19 MASONRY LAP SPlice
TYPICAL



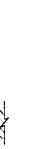
17 STANDARD HOOKS
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18 REBAR OFFSET AND LAP SPlice
IN CONCRETE - TYPICAL



19 MASONRY LAP SPlice
TYPICAL





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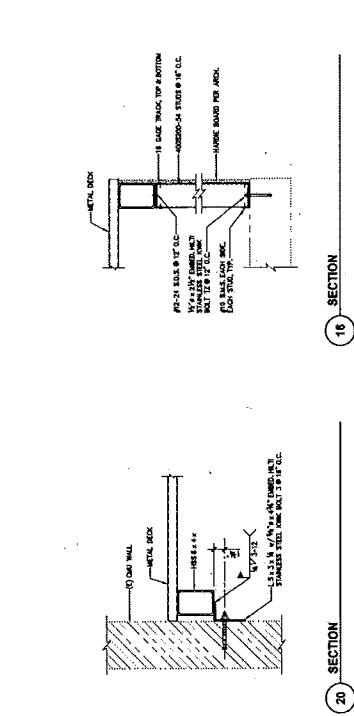
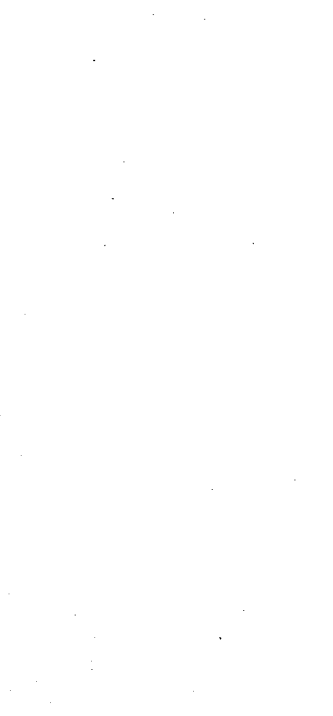
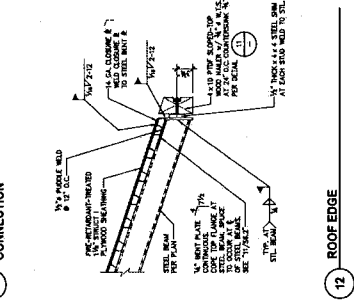
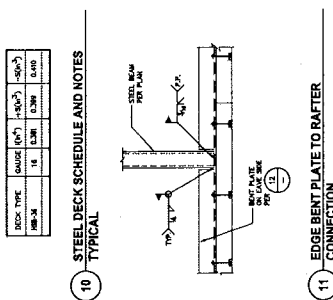
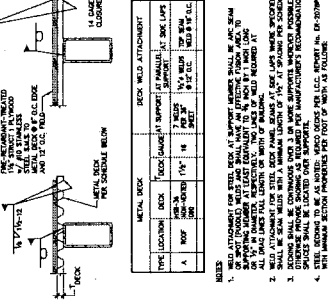
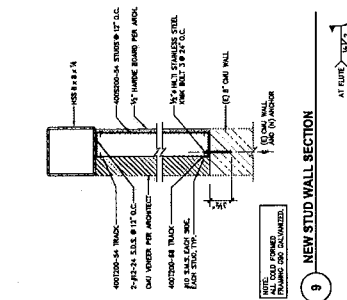
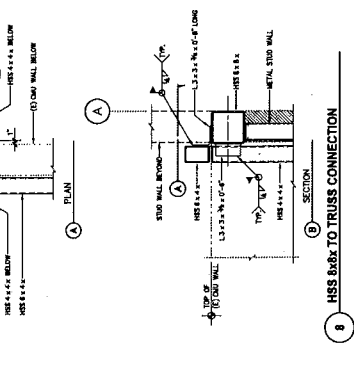
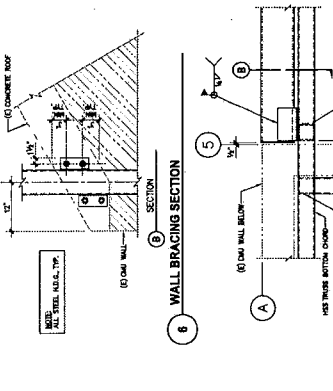
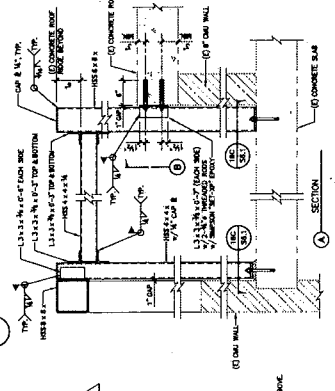
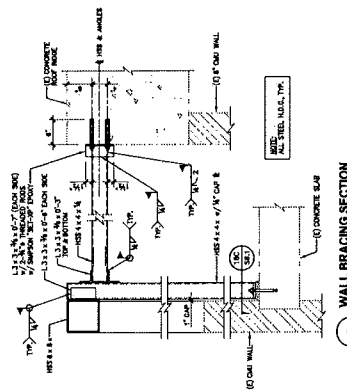
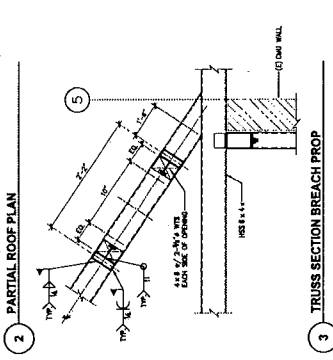
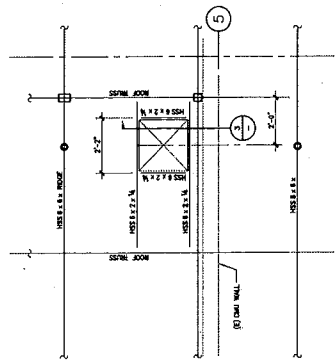
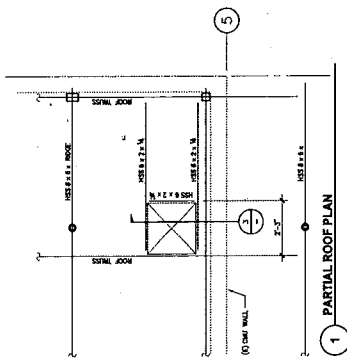
Orange County Fire Authority

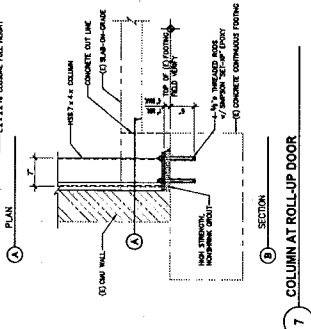
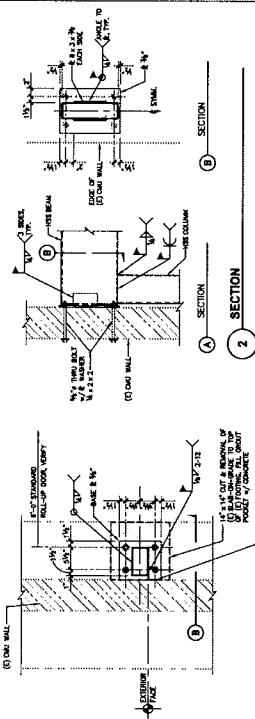
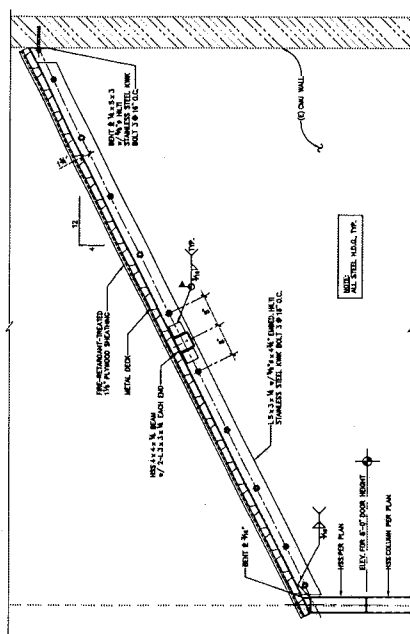
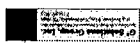
ORANGE COUNTY
FIRE AUTHORITY



OCFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

STPP WALL TRAINING PROP DETAILS
May 15, 2008
MADE IN U.S.A.
S-9-2







RSSE
RESEARCH & SERVICE
ENGINEERING

Orange County Fire Authority
TRAINING GROUNDS MODIFICATIONS

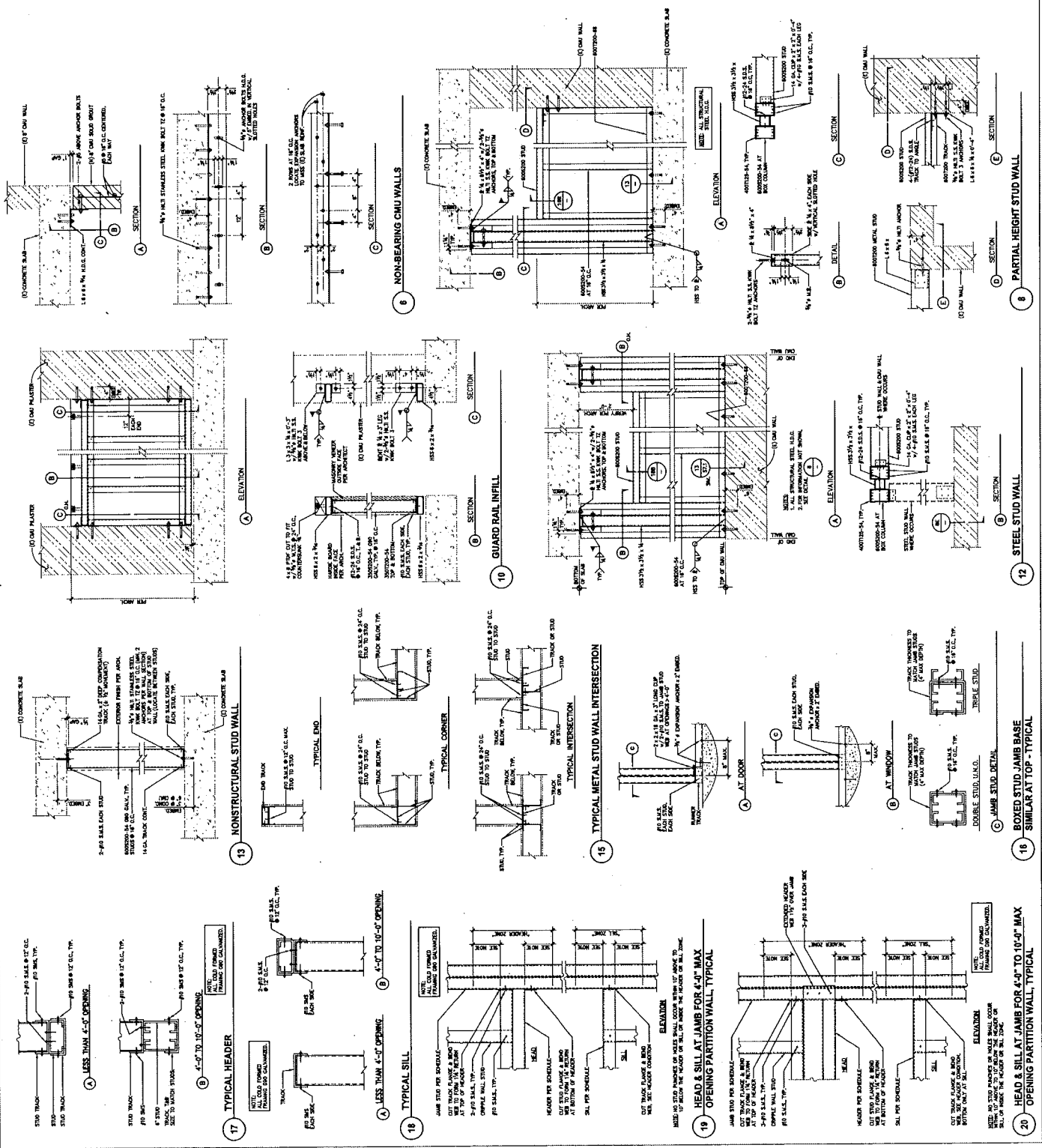
ORANGE COUNTY
FIRE AUTHORITY



OCFA REGIONAL FIRE OPERATIONS
TRAINING GROUNDS MODIFICATIONS

TOWER TRAINING PROP DETAILS
May 14, 2024

MODEL 11.1A
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S-7.1



Questions & Answers Responsibility of Lowest Responsive Bidders

The following questions and answers are presented to address the public comments submitted via email on October 22, 2020 regarding this agenda item.

1. What qualifications were required to bid on the Training Grounds Improvement Projects?

The requirements to bid on the Projects were the standard requirements for OCFA's public works contracts. For example, bidders were required to possess the necessary licenses to perform the work, be registered with the Department of Industrial Relations ("DIR"), carry the requisite insurance and bonds, and provide a bid bond in the amount of 10% of the bid amount. Additional requirements included providing references and information regarding similar projects completed during the past ten years.

There is a provision in the Public Contract Code to go through a two-step process wherein bidders are first required to complete a questionnaire and financial statement and other information required by a public agency and then only those pre-qualified are allowed to bid on the contract. However, this is not required and typically not utilized by OCFA or other public agencies for public works contracts which are required by State law to be awarded to the lowest responsible bidder. Staff is of the opinion that the qualifications required to bid on the Project were sufficient to meet OCFA's needs.

2. What are OCFA's options with respect to awarding the contracts?

With respect to public works contracts of this nature, OCFA is required to award the contract to the lowest responsible bidder pursuant to Public Contract Code section 20162. Pursuant to Section 20162, OCFA determines which bidder submitted the lowest bid and then determines whether the lowest bid is responsive, i.e., meets all the bid requirements and does not contain any material errors and then whether the bidder is a responsible bidder. A responsible bidder is defined in the Public Contract Code as a bidder who has demonstrated the quality, fitness, capacity and experience to satisfactorily perform the work. Thus, the situations in which OCFA does not have to award the contract to the lowest bidder are when it finds the bid is not responsive or the bidder is found to not be responsible. In either of these situations OCFA would need to notify the lowest bidder as to why its bid was non-responsive and/or not a responsible bidder and provide an opportunity for the bidder to submit documents and appear before the Board to contest OCFA's finding. Such findings must be supported by substantial evidence.

3. What protections does OCFA have against delays and change orders?

As noted above, State law requires OCFA to award the contracts to the lowest responsible bidder. With respect to delays and changes orders, there is no guarantee in any public works contract that delays and/or change orders will not occur. Having said that, OCFA's construction agreement specifies the terms that OCFA and the contractor agree to abide by for the project; it includes a description of all work that is to be completed and the corresponding firm fixed price the contractor agrees to as full compensation to perform the work. In the event

of delay due to the fault of the contractor, OCFA has the ability to assess penalties. If additional work is required that would increase the contractor's cost, a "change order" would be negotiated and would have to be agreed upon by both parties in writing. Change order requests for work already included in the scope of services will not be accepted. Any change orders exceeding management authority would need to be approved by the Executive Committee.

4. Do PCN3 and GA Technical meet the requirements for being the lowest responsible bidders for the respective Training Grounds Improvement Projects?

In staff's opinion, the answer is yes. The contractors submitted the lowest monetary bids for the respective solicitations and both submitted bids that were responsive to all bid requirements. Based on the information that staff has been able to acquire, staff believes the contractors are "responsible" as that term is used in the Public Contract Code. It does not appear that civil penalties have been assessed during the past five years and both contractors represent that they have labor-compliance programs in place to review their prevailing wage practices. It should also be noted that civil penalties may be imposed whether the prevailing wage violation was intentional or not and that the total amount of penalties assessed appear to represent less than one half of one percent of the total public works contracts the respective Contractors have been awarded since 2017.

As to the criminal matter referenced in the public comments submitted at the October meeting, it appears from documentation and other information provided by PCN3 that while charges were filed, they were all ultimately dismissed without any guilty or no lo contender pleas or payment of any criminal or civil penalties associated therewith. In addition to the documentation submitted by PCN3 evidencing the case was dismissed, PCN3 stated in an e-mail that the criminal complaint was based on allegations made by some ex-employees of PCN3 who alleged they were not paid for all hours worked upon their separation from PCN3 in 2014. Given the dismissal of the case, it appears the District Attorney did not believe it had the evidence to substantiate a criminal prosecution and there is at least some question as to whether the nature of the charges is relevant to whether PCN3 is a "responsible" bidder with respect to the contract.

As noted above, working in conjunction with the design professionals engaged for this project, staff established appropriate minimum qualifications that contractors must meet to be considered for award. Both PCN3 and GA Technical possesses all state-required licenses and they are currently valid. This means that, by the determination of the State of California, both contractors are eligible to bid on and be awarded contracts for public projects.

5. How reputable are PCN3 and GA Technical?

Not only do PCN3 and GA Technical possess all active licenses and registrations required and issued by the State of California, both have been awarded and completed numerous other contracts for public agencies in California, such as:

PCN3:

Awarding Body	Cumulative Value of Projects Awarded after January 2017
Alta Loma School District	\$663,000
City of Buena Park	\$1,730,700
City of Downey- Measure S	\$3,339,000
City of Fontana	\$1,373,000
City of Oceanside	\$9,268,720
City of Orange	\$1,986,000
City of San Clemente, Engineering Division	\$2,244,619
City of West Hollywood	\$306,627
Community Development Commission of the County of Los Angeles	\$3,586,504
County of Los Angeles Department of Public Works	\$594,500
County of San Bernardino - RES Project Management Division	\$1,249,000
Fullerton Joint Union High School District	\$2,170,000
Glendale Community College	\$953,075
Irvine Unified School District	\$97,748,000
Los Angeles Neighborhood Land Trust	\$844,000
Moreno Valley Unified School District	\$13,500
Newport-Mesa Unified School District	\$2,826,378
San Bernardino City USD	\$3,043,000
State of California Department of Transportation	\$4,296,262
Temecula Valley Unified School District	\$5,431,177
Torrance Unified School District	\$748,000
Westminster School District	\$5,708,000
Grand Total	\$150,123,062

GA Technical:

Awarding Body	Cumulative Value of Projects Awarded after October 2016
Antelope Valley Union High School District	\$79,731
Beverly Hills Unified School District	\$27,350
Burbank Glendale Pasadena Airport Authority	\$52,900
Cal Poly Pomona	\$132,500
California Department of Social Services	\$200,000
California State Polytechnic University, Pomona	\$17,108
Campbell Union High School District	\$329,045
Chaffey Joint Union High School District	\$5,000
City Council of City of Glendale	\$140,000
City of Chino	\$28,294
City of Glendora	\$19,000
City of Huntington Park	\$21,070

City of Palmdale Public Works Department	\$139,900
City of Sacramento Department of Utilities	\$168,420
City of Santa Barbara - Purchasing	\$2,322
City of Santa Cruz Public Works Engineering	\$71,719
City of Stockton Public Works	\$86,600
City of Vacaville - CSD	\$27,304
City of West Hollywood	\$957,174
County of San Luis Obispo	\$141,735
Department of Forestry and Fire Protection	\$48,147
Department of General Services	\$58,000
Department of Motor Vehicles	\$3,391,950
Foothill Transit	\$9,325
Glendale Unified School District-Updated	\$28,500
Hemet Unified School District	\$143,670
Inglewood Unified School District	\$269,600
Lake Tahoe Unified School District	\$234,626
Mountain View School District	\$75,059
Mt. SAC	\$398,613
Mt. SAC - Rondell	\$107,500
Newark USD	\$93,900
Orange County Fire Authority	\$409,556
Palo Verde Union Elementary School District	\$109,674
PORT OF OAKLAND-PURCHASING	\$49,284
Redwoods Community College	\$5,500
Regents of the University of California	\$29,087
Richland School District	\$27,253
San Diego State University	\$47,574
San Francisco State University 3	\$17,323
San Joaquin County - Purchasing & Support Services	\$29,725
Sanitation Districts of Los Angeles County	\$39,063
Simi Valley Unified School District	\$999,908
Snowline Joint Unified School District	\$272,579
South Pasadena Unified School District	\$14,560
Southwestern Community College District	\$465,850
Torrance Unified School District	\$160,995
Twin Rivers Unified School District eff 6-18-18	\$155,100
Grand Total	\$10,339,094

6. **Disclosure of prior allegations of CA Labor Code non-compliance:**

Both contractors have indicated that prior allegations of non-compliance are unfounded, settled, and/or are in the process of being resolved:

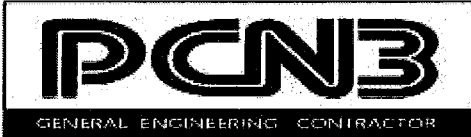
GA Technical:

"The notice of a preliminary hearing regarding cases 19-0161-PWH and 19-0166-PWH is in regards to a previous OCFA project, the Upgrade of Emergency Power Distribution at RFOTC, IFB# RO2152. One case is for the surety and the other case is for GA Technical Services, Inc but it is regards to the same project.

This case is currently in the process of being resolved without going to hearing between the Division of Labor Standards Enforcement (DLSE) & GA Technical Services. I have been in direct contact with the DLSE and we should resolve this matter by the end of this year.

This case was opened due an investigation to confirm compliance with the Public Works Laws and GA Technical received a Civil Wage and Penalty Assessment that is being disputed. That is why GA Technical and the DLSE are working on coming to an agreement to settle this case by the end of this year before going to Hearing on February, 18, 2021."

PCN3:



11082 Winners Circle, Unit #B, Los Alamitos, CA, 90720 Phone: 562-493-4124 Fax: 562-493-4129, License#: 786518

October 26, 2020

To: Members of the Board
Of Orange County Fire Authority

Re: Allegations of Sheet Metal Workers Local 105 against PCN3
Email Dated October 22, 2020

Dear Members of the Board:

Please receive this letter in response to the email that you received from Mr. Brian Germain from Sheet Metal Workers Union local 105 on October 22, 2020 (exhibit 1). The biased allegations and misinformation provided by Mr. Germain against PCN3 are nothing other than union retaliation against a non-union contractor and this retaliation is simply due to PCN3's refusal to become a union contractor. PCN3 is victim of union retaliations because Mr. Germain by providing documents that are not representing the facts and is only skewed to create emotional decision by sending it within an hour or two of the board meeting wants to create false representation of PCN3.

The cases that Mr. Germain referenced/attached in his email are between 5 to 7 years old and they have all either been dismissed or settled. As the members of the Board are aware, not all allegations contained in civil or administrative complaints have merit, however, most such allegations reach a tipping point where it is more expensive to pay the costs associated with litigation and defense as opposed to reaching a settlement. Settlements do not by definition admit guilt or liability, rather they buy the parties peace. Settlements in the California court system and administrative proceedings are always favored over protracted litigation and there are judges and courtrooms dedicated solely for that purpose. Thus, settling any case whether in Court or before an administrative agency is greatly favored by public policy. Lastly, California Evidence Code Section 1152 makes settlements and settlement discussions inadmissible.

As to the status of the cases Mr. Germain references:

1. Criminal Charges filed by Orange County District Attorney's office in March of 2016 (Case No. 16CF0765) was dismissed on 11/07/2018, please see attached certified court minutes (exhibit #2)
2. Department of Industrial relation determination of civil penalties case no. 44-36250-572 filed on 10/22/2013 for amount of \$13000.00 was settled for settlement amount of \$9750.00 (exhibit #3).
3. Department of Industrial relation determination of civil penalties case no. 40-35205-404 filed on 5/20/2014 for amount of \$19,200.00 was settled for settlement amount of \$10,140.00 (exhibit #4).
4. Department of Industrial relation determination of civil penalties case no. 40-42384-404 filed on 10/9/2015 for amount of \$63,090.56 was settled for settlement amount of \$26,672.16 (exhibit #5).
5. Department of Industrial relation determination of civil penalties case no. 40-47265-404 filed on 12/8/2015 for amount of \$34,880.00 was settled for settlement amount of \$13,080.00 (exhibit #6).



11082 Winners Circle, Unit #B, Los Alamitos, CA, 90720 Phone: 562-493-4124 Fax: 562-493-4129, License#: 786518

6. Department of Industrial relation determination of civil penalties case no. 40-41412-223 filed on 12/14/2015 for amount of \$1,211,106.74 was settled for settlement amount of \$131,724.49 (exhibit #7).

Mr. Germain's email is misleading at best and an outright misrepresentation at worst. The criminal case was resolved with no felony convictions, and each and every one of the Department of Industrial Relations CWPAs were resolved for less than alleged in the CWPAs by settlement in good faith and negotiated by both the Department of Industrial Relations and PCN3. Please note Case No. #40-41412-223 which sought \$1,211,108.74 was settled for 11% of that amount. Of course, PCN3 would challenge that assessment.

As shown above which Mr. Germain deliberately failed to inform you in his email is that all cases above were caused by a few former employees of PCN3 with the help of Labor Unions are either dismissed or settled.

In April of 2016, PCN3 hired a third-party independent labor compliance company known as Alliant Consulting in order to protect itself against unfounded allegations/claims by employees and to confirm to the Orange County District Attorney's office that prevailing wages were being properly paid pending the outcome of the District Attorney's case. In addition, PCN3 put in place a series of labor compliance protocols which are as follows and are a permanent part of PCN3's job place standard operating procedure.

1. Installed electronic punch-in clock on all project sites and all employees are required to clock-in and or clock-out when they are onsite.
2. All employees are required to sign-in and sign-out when they are on the project site, in addition to the time clock.
3. All project superintendents create detailed construction daily reports which shows the specific tasks that PCN3 employees have performed on a given day on any project site.
4. Alliant Consulting performs unannounced weekly site visits to interview all employees to make sure they are getting paid correct prevailing wage rate and for all the hours worked.
5. PCN3 submits copies of all certified payroll records on all projects on weekly basis to Alliant with a copy of punch-in cards and payroll checks for audit and accuracy.
6. Alliant reviews submitted CPRs and requests additional information or documents as needed to ensure PCN3 is following prevailing wage laws and to provide PCN3 with monthly updates. Please see latest update as of 10/22/2020 which shows PCN3 is complaint on all 15 projects (exhibit #8).

Even after the criminal case was dismissed, PCN3 retained Alliant Consulting to continue their independent third-party labor compliance monitoring on all PCN3 projects and they continue to do so. PCN3's management put in place the above-mentioned labor compliance protocols to protect PCN3 and its employees from further unfounded allegations from various unions or their surrogate investigation organizations such as the "Center for Contract Compliance."

PCN3 has done nothing but public works for over 20 years and we have more than 60 employees and construction equipment worth over \$1.5 Million dollars. We have the required experience and bonding capacity to perform this project and construction projects far bigger than this. PCN3 is properly licensed by the California State Contractors License Board and Department of Industrial Relations to bid and work on public works projects. We have the proper experience in public works construction and appropriate bonding limits since March of 2016, PCN3 has been awarded over 40 projects with a value of over \$85 Million dollars and we



11082 Winners Circle, Unit #B, Los Alamitos, CA, 90720 Phone: 562-493-4124 Fax: 562-493-4129, License#: 786518

are currently prequalified with over 20 various public entities. We currently have 8 projects in progress, and I have attached a list for your reference as exhibit 9.

All the cases that are referenced in the email you received from the sheet metal workers union local 105 are over 5 years old and are either dismissed or settled. Since April of 2016 PCN3 has engaged independent third-party labor compliance protocols to protect itself against allegations/claims in future. In addition, it has performed over 40 construction projects in public works sector. Therefore, we ask you to accept the email that you have received from sheet metal workers local 105 as nothing other than Union retaliation against a non-union contractor and ask you follow State of California Public Contract Laws to award this project to PCN3 who is the lowest responsible and responsive bidder on Regional Fire Operations and training Center (RFOTC) Training Grounds Improvements project. If you have any questions regarding this letter, please feel free to contact the undersigned at 562-493-4124 X 407.

Respectfully

A handwritten signature in black ink, appearing to be "Brian Abghari", is written over a horizontal line.

Brian Abghari
President

[Print](#) | [Close Window](#)

Exhibit #1

Subject: OCFA Public Comment for Board of Directors Public Meeting Consent Calendar item #2D**From:** "Huizar, Maria" <MariadHuizar@ocfa.org>**Date:** Thu, Oct 22, 2020 4:13 pm**To:****Cc:** Executive Management <EXEC@ocfa.org>, "David E. Kendig - WSS" <dkendig@wss-law.com>**Attach:** image003.jpg

2016-04-11 Press Release \$635,000.00 PCN 3 Five Defendants Arraigned for Committing Over \$635,000 in Tax and Insurance Fraud and Failing to Pay Employees Prevailing Wage.pdf

2013-10-22 DCP \$13,000.00 Orange Coast College Music Modernization.pdf

2014-05-20 Ammended DCP \$48,000.00 Jurupa Sheriffs Evidence Warehouse.pdf

2015-10-09 CWPA \$63,090.00 El Camino College Science Building.pdf

2015-12-08 CWPA \$34,880.00 40-47265-404 UCLA Campbell Hall - AAP Addition & Renovation.pdf

2015-12-14 CWPA \$1,211,106.74 Birch Street (Olinda) Elementary School (Bid #13-02).pdf

Good afternoon, Members of the Board,

Attached for your information is communication received on Agenda Item 2D (Award of Public Works Contract for Regional Fire Operations and training Center (RFOTC) Training Grounds Improvements.

Please note that staff will be pulling this item from the agenda and continuing to the November 19, 2020 Board Meeting.

If you have any questions, please do not hesitate to contact staff. Thank you.

**Maria D. Huizar**

Clerk of the Authority

Orange County Fire Authority

Office: 714-573-6041 | Mobile: 949-473-1437

*In service of others!***From:** Brian Germain <BGermain@local105.org>**Sent:** Thursday, October 22, 2020 3:38 PM**To:** Public Comments <PublicComments@ocfa.org>**Cc:** Clerk of the Authority <COA@ocfa.org>; dkendig@wss-law.com**Subject:** Public Comment for Board of Directors Public Meeting October 22, 2020- Cosent Calendar item #D-3

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To our Respected Members of the Board,

As a result of reviewing the Fire Authority agenda for this evenings board meeting a disturbing item regarding the awarding of a construction project to PCN3 has come to my attention. Attached for your review are several documents that should be of interest to the Fire Authority:

- 1 press release from the DIR News.
- 3 DIR civil wage penalties and assessments
- 1 Amended Determination of Civil Penalty

It is astonishing that a pre-qualification wouldn't have disqualified them if one was conducted. The **LOWEST BID** is not necessarily the most cost effective after delays and change orders are figured in. Therefore, Sheet Metal Workers would like the board members to reconsider the award of the contract for RFOTC Training Grounds Improvements, after reviewing the performance and past violations of PCN3. As the fiduciary gate keepers, are these standards acceptable? We present this information for your review and consideration when deciding how the Orange County tax payers money will be spent.

Respectfully,

Brian Germain

SMART (Sheet Metal,Air,Rail,Transportation)
2120 Auto Centre Drive
Glendora, CA 91740
(909)305-2800 xt.534

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SUPERIOR COURT OF THE STATE OF CALIFORNIA,
COUNTY OF ORANGE

MINUTES

Exhibit # 2

Case : 16CF0765 F A

Name : Abghari, Brian

Date of Action	Seq Nbr	Code	Text
11/07/18	1	CLTXT	Attorney Michael Laurence requested to place case on calendar.
	2	CLCST	Preliminary Hearing set on 11/07/2018 at 08:30 AM in Department C55.
	3	HHELD	Hearing held on 11/07/2018 at 08:30:00 AM in Department C55 for Preliminary Hearing.
	4	OFJUD	Judicial Officer: Vickie Hix, Commissioner
	5	OFJA	Clerk: K. Hubbard
	6	OFBAL	Bailiff: B. Franklin
	7	OFREP	Court Reporter: LaVette Henningham
	8	APDDA	People represented by Shaddi Kamiabipour, Deputy District Attorney, present.
	9	APDWRA	Defendant present in Court with counsel Mitchell B. Hannah, Retained Attorney.
	10	APATG	People represented by Manuel Arambula, Deputy Attorney General, present.
	11	CLVAC	Preliminary Hearing vacated for 12/21/2018 at 09:00 AM in C55.
	12	FIDAR	Sentence Recommendation for terminal disposition filed.
	13	CDCAS	Case dismissed - Motion of People.
	14	BLBXN	Court orders bail bond # AUL-2102172 exonerated.
	15	OFMCD	Minutes entered by E. Flores on 11/07/2018.
	16	DOJABS	DOJ Initial Abstract sent.



I hereby certify the foregoing instrument consisting of 1 page,
is a true and correct copy of the original on file in this court.

ATTEST: (DATE) **NOV 08 2018**
DAVID H. YAMASAKI, EXECUTIVE OFFICER AND CLERK OF THE
SUPERIOR COURT OF CALIFORNIA, COUNTY OF ORANGE

BY **G. GRIEGO**, DEPUTY

Exhibit #3

PARTIES

The parties to this Agreement, which was made as of the 20th day of October, 2014, consist of the DIVISION OF LABOR STANDARDS ENFORCEMENT, Department of Industrial Relations, State of California (hereafter "DLSE") and P C N 3, Inc. (hereafter "PCN3") hereinafter jointly referred to as the "PARTIES."

RECITALS

1. On October 22, 2013, DLSE served a Determination of Civil Penalty – Labor Code Section 1777.7 (hereafter "DCP") (Exhibit "A") in DLSE Case No. 44-36250-572 to PCN3 and COAST COMMUNITY COLLEGE DISTRICT (hereafter "AWARDING BODY"), assessing Labor Code section 1777.7 penalties in the amount of \$13,000.00; said amount alleged to be due and owing by PCN3 as a result of alleged violations of PCN3's duties and obligations pursuant to Labor Code 1777.5 relating to the employment of apprentices on a public works project known as ORANGE COAST COLLEGE MUSIC MODERNIZATION PROJECT (hereafter "PROJECT"), awarded by the AWARDING BODY to PCN3, as the general contractor.

2. To the extent that the AWARDING BODY has withheld any funds in response to the DCP, the AWARDING BODY could possibly become duty bound to promptly transmit withheld funds to DLSE pursuant to Labor Code sections 1727 and/or 1742.

SETTLEMENT AGREEMENT

3. DLSE and PCN3 agree to resolve all disputes between them concerning the DCP identified in Paragraph 1 above as follows:

- (a) PCN3 will withdraw its Request for Review with the Department of Industrial Relations, Office of the Director, Legal Unit and the DCP will be deemed a "final order" no longer subject to review for purposes of Labor Code section 1742;

(b) DLSE agrees that PCN3 will satisfy this "final order" by payment to DLSE of the sum of \$9,750.00 (hereafter "SETTLEMENT AMOUNT");

(c) PCN3 and DLSE agree that SUB will satisfy the SETTLEMENT AMOUNT by making the following payments on, or before, the corresponding dates:

1) \$2,437.50 to be paid on or before November 20, 2014;

2) \$2,437.50 to be paid on or before December 20, 2014;

3) \$2,437.50 to be paid on or before January 20, 2015; and,

4) \$2,437.50 to be paid on or before February 20, 2015.

(d) PCN3 further agrees to send these checks made payable to: "DIVISION OF LABOR STANDARDS ENFORCEMENT" to:

Division of Labor Standards Enforcement
c/o Attorney Max D. Norris
300 Oceangate, Suite 850
Long Beach, CA 90802

(e) PARTIES agree that time is of the essence, that timely payment is a material part of this agreement.

4. DLSE agrees that, conditioned upon the timely payment by PCN3 to DLSE of the SETTLEMENT AMOUNT, as set forth in Paragraph 3(b), (c), (d) and (e) above, DLSE does hereby release PCN3 from any liability arising from the DCP discussed in Paragraph 1, including claims for monetary penalties under Labor Code section 1777.7 resulting from any work performed by workers employed on the PROJECT by PCN3.

5. The PARTIES further agree that signatures to this agreement may be effective upon electronic transmission whether by email, facsimile transmission, or as a PDF attachment to email; that all signatures need not be affixed to a single document to be effective as to the PARTY whose signature is affixed so long as each PARTY signs this Settlement Agreement and Release; and that where this Settlement Agreement and Release is signed by counsel for the

PARTY, such counsel warrants that they are expressly authorized by their client to execute this document on their client's behalf.

SIGNATURES

I certify that I have read this Settlement Agreement and Release and fully understand it, and in witness I have executed this Release on this 24th day of October, 2014, at Long Beach, California. The undersigned represents and warrants that he has full authority to execute this Settlement Agreement and Release on behalf of the Division of Labor Standards Enforcement, Department of Industrial Relations, State of California, and that no legislative act or judicial act or approval is necessary to give effect to this Release.

DIVISION OF LABOR STANDARDS ENFORCEMENT
Department of Industrial Relations State of California

By: 

MAX D. NORRIS, Esq.
Attorney for the Labor Commissioner

I hereby certify that I am RMO/CEO/PRESIDENT of P C N 3, Inc. and that I have read this Settlement Agreement and Release and fully understand it, and in witness I have executed this Release on this 31 day of October, 2014, at Los Angeles, California.

P C N 3, Inc.

By: 

Homayoun Abghari, Its RMO/CEO/President

Exhibit #4

SETTLEMENT AGREEMENT AND RELEASE

PARTIES

The parties to this Agreement, which was made as of the 20th day of February, 2015, consist of the DIVISION OF LABOR STANDARDS ENFORCEMENT, Department of Industrial Relations, State of California (hereafter "DLSE") and P C N 3, INC. dba PCN3 GENERAL ENGINEERING CONTRACTOR (hereafter "PCN3") hereinafter jointly referred to as the "PARTIES."

RECITALS

1. On May 20, 2014, DLSE served a Determination of Civil Penalty – Labor Code Section 1777.7 (hereafter "DCP") (Exhibit "A") in DLSE Case No. 40-35205-404-DCP to PCN3, and RIVERSIDE COUNTY ECONOMIC DEVELOPMENT AGENCY (hereafter "AWARDING BODY"), assessing Labor Code section 1777.7 penalties in the amount of \$19,200.00; said amount alleged to be due and owing by PCN3 as a result of violations of PCN3's duties and obligations pursuant to Labor Code 1777.5 relating to the employment of apprentices on a public works project known as "JURUPA SHERRIF'S EVIDENCE WAREHOUSE" (hereafter "PROJECT"), awarded by the AWARDING BODY to PCN3, as the general contractor on the PROJECT.

2. To the extent that the AWARDING BODY has withheld any funds in response to the DCP, the AWARDING BODY could possibly become duty bound to promptly transmit withheld funds to DLSE pursuant to Labor Code sections 1727 and/or 1742.

3. PCN3 filed that certain Request for Review of the DCP with DLSE, which resulted in the Director of the Department of Industrial Relations (hereafter "DIRECTOR") appointing as the DIRECTOR'S Hearing Officer (hereafter "HEARING OFFICER"), an attorney employed by the Department of Industrial Relations, Office of the Director, Legal Unit (hereafter "ODL"), to preside over PCN3's Request for Review of the DCP. This matter is now

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pending before ODL entitled In the Matter of the Request for Review of: PCN3 General Engineering Contractor, ODL Case No. 14-0446-PWH (hereafter "THE LITIGATION").

SETTLEMENT AGREEMENT

4. DLSE and PCN3 agree to resolve all disputes between them concerning the DCP identified in Paragraph 1 and THE LITIGATION identified in Paragraph 3, above as follows:

- (a) PCN3 will withdraw its Request for Review with the Department of Industrial Relations, Office of the Director, Legal Unit and the DCP will be deemed a "final order" no longer subject to review for purposes of Labor Code section 1742;
- (b) DLSE agrees that PCN3 will satisfy this "final order" by payment to DLSE of the sum of \$10,140.00 (hereafter "SETTLEMENT AMOUNT");
- (c) PCN3 and DLSE agree that PCN3 will satisfy the SETTLEMENT AMOUNT by making one payment on, or before, March 31, 2015. S.A.
- (d) PCN3 further agrees to send these checks made payable to: "DIVISION OF LABOR STANDARDS ENFORCEMENT" to:

Division of Labor Standards Enforcement
c/o Attorney Max D. Norris
300 Oceangate, Suite 850
Long Beach, CA 90802

- (e) PARTIES agree that time is of the essence, that timely payment is a material part of this agreement.

5. DLSE agrees that, conditioned upon the timely payment by PCN3 to DLSE of the SETTLEMENT AMOUNT, as set forth in Paragraph 4(b), (c), (d) and (e) above, DLSE does, upon said payment, and in further consideration for PCN3's Withdrawal of Request for Review, DLSE hereby releases PCN3 from any liability arising from the DCP identified in Paragraph 1 above, and the LITIGATION identified in Paragraph 3 above, including claims for monetary

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penalties under Labor Code section 1777.7 resulting from any work performed by workers employed on the PROJECT by PCN3.

6. The PARTIES further agree that signatures to this agreement may be effective upon electronic transmission whether by email, facsimile transmission, or as a PDF attachment to email; that all signatures need not be affixed to a single document to be effective as to the PARTY whose signature is affixed so long as each PARTY signs this Settlement Agreement and Release; and that where this Settlement Agreement and Release is signed by counsel for the PARTY, such counsel warrants that they are expressly authorized by their client to execute this document on their client's behalf.

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SIGNATURES

I certify that I have read this Settlement Agreement and Release and fully understand it, and in witness I have executed this Release on this 20th day of February, 2015, at Long Beach, California. The undersigned represents and warrants that he has full authority to execute this Settlement Agreement and Release on behalf of the Division of Labor Standards Enforcement, Department of Industrial Relations, State of California, and that no legislative act or judicial act or approval is necessary to give effect to this Release.

DIVISION OF LABOR STANDARDS ENFORCEMENT
Department of Industrial Relations State of California

By: 
MAX D. NORRIS, Esq.
Attorney for the Labor Commissioner

I hereby certify that I am the RMO of P C N 3, INC. dba PCN3 GENERAL ENGINEERING CONTRACTOR; that I have authority to bind the company to the terms of this Settlement Agreement and Release; and, that I have read this Settlement Agreement and Release and fully understand it, and in witness I have executed this Release on this 2nd day of March, B.D. 2015, at Marina del Mar, Los Alamitos, California.
B.D.

P C N 3, INC.
dba PCN3 GENERAL ENGINEERING CONTRACTOR

By: 
BABAK ABGHARI
Its RMO

Exhibit #5

PARTIES

The parties to this Agreement, which was made as of the 30th day of January, 2017, consist of the DIVISION OF LABOR STANDARDS ENFORCEMENT, Department of Industrial Relations, State of California (hereafter "DLSE") and PCN3, INC. (hereinafter "PCN3"), hereinafter jointly referred to as the "PARTIES."

RECITALS

1. On October 9, 2015, DLSE served a Civil Wage and Penalty Assessment (hereafter "CWPA") (Exhibit "A") in DLSE Case No. 40-42384-404 to PCN3 and the EL CAMINO COMMUNITY COLLEGE DISTRICT (hereafter "AWARDING BODY"), assessing \$21,450.56 in due and unpaid wages, \$11,640.00 in penalties under Labor Code § 17775, and \$30,000.00 in penalties under Labor Code § 1777.7; said amounts alleged to be due and owing by PCN3 for its alleged failure to comply with prevailing wage law and apprenticeship requirements on a public works project known as EL CAMINO COLLEGE SCIENCE BUILDING (hereafter "PROJECT"); awarded by the AWARDING BODY to PCN3 as the general contractor.

2. PCN3 filed a Request for Review of the CWPA with DLSE, which resulted in the Director of the Department of Industrial Relations (hereafter "DIRECTOR") appointing as the DIRECTOR's Hearing Officer ("Hearing Officer"), an attorney employed by the Department of Industrial Relations, Office of the Director, Legal Unit (hereafter "ODL"), to preside over a hearing on the Requests for Review of the CWPA. This matter is now or was pending before DIR entitled In the Matter of the Request for Review of: PCN3, INC., ODL Case No. 15-0463-PWH (hereafter "THE LITIGATION").

3. Pursuant to the provisions of Labor Code § 1743, subdivision (a), and by operation of law, PCN3 could be liable for all amounts found due on the CWPA and/or a final order and/or judgment based thereon.

4. To the extent that the AWARDING BODY has withheld any funds in response to the CWPA, the AWARDING BODY could possibly become duty bound to promptly transmit withheld funds to DLSE pursuant to Labor Code sections 1727 and/or 1742.

5. On or about 12/8/2015, PCN3 mailed 2 checks made payable to the Department of Industrial Relations to the Department of Industrial Relation's Cashiering Unit (hereafter "DIR CASHIERING"), in the amount of \$63,090.56 ("DIR DEPOSIT") (a copy of the cancelled checks is attached hereto as Exhibit B).

SETTLEMENT AGREEMENT

6. DLSE and PCN3 agree to resolve all disputes between them concerning the CWPA and THE LITIGATION identified in Paragraph 1 and 2 above as follows:

- (a) PCN3 will withdraw its Request for Review referenced in Paragraph 2 above and the CWPA will be deemed a "final order" no longer subject to review under Labor Code 1742;
- (b) The PARTIES agree that PCN3 will pay DLSE the sum of \$26,672.16 (hereafter "SETTLEMENT AMOUNT"), which consists of all unpaid wages and penalties due under the CWPA, on or before February 28, 2017;
- (c) THE PARTIES agree that to satisfy the SETTLEMENT AMOUNT, DLSE will first attempt to collect from the DIR DEPOSIT identified in Paragraph 5 from DIR CASHIERING; and, that PCN3 hereby directs DIR

CASHIERING to release to DLSE the SETTLEMENT AMOUNT identified in Paragraph 6 (b) from the DIR DEPOSIT identified in Paragraph 5;

- (d) THE PARTIES agree and hereby direct DIR CASHIERING to release any remaining amounts of the DIR DEPOSIT to PCN3 concurrently with the SETTLEMENT AMOUNT that is being released to DLSE. Thus, DIR CASHIERING should release \$26,672.16 to DLSE and \$36,418.40 to PCN3;
- (e) THE PARTIES agree that upon PCN3'S withdrawal of its Request for Review, the execution of this Settlement Agreement by an authorized officer of PCN3, and the full payment of the SETTLEMENT AMOUNT to DLSE, DLSE will release PCN3 from any liability relating to CWPA, including and without limitation to any claim for wages, liquidated damages, interest, and or penalties under Labor Code §§ 1775, 1813, and 1777.7 (including costs and attorney fees) relating to work done by the PCN3 on the PROJECT;

7. The PARTIES further agree that signatures to this agreement may be effective upon electronic transmission whether by email, facsimile transmission, or as a PDF attachment to email; that all signatures need not be affixed to a single document to be effective as to the PARTY whose signature is affixed so long as each PARTY signs this Settlement Agreement and Release; and that where this Settlement Agreement and Release is signed by counsel for the PARTY, such counsel warrants that they are expressly authorized by their client to execute this document on their client's behalf.

RELEASE

8. NOW, THEREFORE, in consideration of PCN3's withdrawal of its Request for Review in this matter and in further consideration of the timely payment to the DLSE of the SETTLEMENT AMOUNT on or before February 28, 2017, and upon said payment, the undersigned hereby releases and forever discharges PCN3, its past, present and future parent companies, divisions, subsidiaries, affiliates, related corporations and entities, members, directors, sureties, bond holders, subcontractors, employees, officers, stockholders, predecessors, successors and assigns, attorneys and agents from all claims arising out of DLSE Case No. 40-42384-404; ODL Case Nos. 15-0463-PWH. This is a full release of all such claims against PCN3 arising out of said CWPA and THE LITIGATION whether known or unknown, suspected or unsuspected relating to work done by PCN3 on the PROJECT.

9. DLSE also releases any and all claims by the DLSE to any PROJECT funds being retained by the AWARDING BODY on the basis of the CWPA referenced in Paragraph 1 above, and if required by the AWARDING BODY, DLSE agrees to deliver to the AWARDING BODY a Release of Civil Wage and Penalty Assessment, indicating that the CWPA is no longer subject to judicial review.

SIGNATURES

I certify that I have read this Settlement Agreement and Release and fully understand it, and in witness I have executed this Release on this 1st day of February, 2017, at Los Angeles, California. The undersigned represents and warrants that he has full authority to execute this

LB5972

PCN3, INC.
Case No. 15-0463-PWH
DSLE No. 40-42384-404

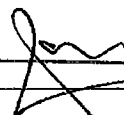
Settlement Agreement and Release on behalf of the Division of Labor Standards Enforcement, Department of Industrial Relations, State of California, and that no legislative act or judicial act or approval is necessary to give effect to this Release.

DIVISION OF LABOR STANDARDS ENFORCEMENT
Department of Industrial Relations State of California

By: _____
ABDEL NASSAR, ESQ.
Attorney for the Labor Commissioner

I hereby certify that I have read this Settlement Agreement and Release and fully understand it, warrant that I have full authority to execute this Settlement Agreement and Release, and in witness I have executed this Release on this 6th day of February, 2017, at Irvine, California.

PCN3, INC.

By:  Bill Abgazi
Its: vice president

LB5972

PCN3, INC.
Case No. 15-0463-PWH
DSLE No. 40-42384-404

Exhibit #6

PARTIES

The parties to this Agreement, which was made as of the 9th day of August, 2016, consist of the DIVISION OF LABOR STANDARDS ENFORCEMENT, Department of Industrial Relations, State of California (hereafter "DLSE") and PCN3, INC. (hereinafter "PCN3"), hereinafter jointly referred to as the "PARTIES."

RECITALS

1. On December 8, 2015, DLSE served a Civil Wage and Penalty Assessment (hereafter "CWPA") (Exhibit "A") in DLSE Case No. 40-47265-404 to PCN3 and the UNIVERSITY OF CALIFORNIA LOS ANGELES (hereafter "AWARDING BODY"), assessing \$34,880.00 in penalties under Labor Code § 1777.7; said amounts alleged to be due and owing by PCN3 for its alleged failure to comply with apprenticeship requirements on a public works project known as UCLA CAMPBELL HALL-AAP ADDITION & RENOVATION (hereafter "PROJECT"), awarded by the AWARDING BODY to PCN3 as the general contractor.

2. PCN3 filed a Request for Review of the CWPA with DLSE, which resulted in the Director of the Department of Industrial Relations (hereafter "DIRECTOR") appointing as the DIRECTOR's Hearing Officer ("Hearing Officer"), an attorney employed by the Department of Industrial Relations, Office of the Director, Legal Unit (hereafter "ODL"), to preside over a hearing on the Requests for Review of the CWPA. This matter is now or was pending before DIR entitled In the Matter of the Request for Review of: PCN3, INC., ODL Case Nos. 16-0062-PWH (hereafter "THE LITIGATION").

3. Pursuant to the provisions of Labor Code § 1743, subdivision (a), and by operation of law, PCN3 could be liable for all amounts found due on the CWPA and/or a final order and/or judgment based thereon.

LB6038

PCN3, INC.
Case No. 16-0062-PWH
DSLE No. 40-47265-404

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4. To the extent that the AWARDING BODY has withheld any funds in response to the CWPA, the AWARDING BODY could possibly become duty bound to promptly transmit withheld funds to DLSE pursuant to Labor Code sections 1727 and/or 1742.

SETTLEMENT AGREEMENT

5. DLSE and PCN3 agree to resolve all disputes between them concerning the CWPA and THE LITIGATION identified in Paragraph 1 and 2 above as follows:

- (a) PCN3 will withdraw its Request for Review referenced in Paragraph 2 above and the CWPA will be deemed a "final order" no longer subject to review under Labor Code 1742;
- (b) The PARTIES agree that PCN3 will pay DLSE the sum of \$13,080.00 (hereafter "SETTLEMENT AMOUNT") which consists of all Labor Code 1777.7 penalties due under the CWPA;
- (c) The PARTIES further agree that PCN3 will satisfy the SETTLEMENT AMOUNT by making two payments of \$6540.00 by or before August 31, 2016, and on or before September 30, 2016, in the form of a check payable to: "DIVISION OF LABOR STANDARDS ENFORCEMENT" to:

Division of Labor Standards Enforcement
320 West 4th Street, Suite 430
Los Angeles, CA 90013
- (d) The PARTIES agree that time is of the essence, and that timely payment is a material part of this Agreement;

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(e) The PARTIES agree that upon timely payment by PCN3 to DLSE of the SETTLEMENT AMOUNT, DLSE will release PCN3 from any and all liability relating to THE LITIGATION and the CWPA relating to any claim for penalties under Labor Code § 1777.7 (including costs and attorney fees) relating to work done by PCN3 on the PROJECT.

6. The PARTIES further agree that signatures to this agreement may be effective upon electronic transmission whether by email, facsimile transmission, or as a PDF attachment to email; that all signatures need not be affixed to a single document to be effective as to the PARTY whose signature is affixed so long as each PARTY signs this Settlement Agreement and Release; and that where this Settlement Agreement and Release is signed by counsel for the PARTY, such counsel warrants that they are expressly authorized by their client to execute this document on their client's behalf.

RELEASE

7. NOW, THEREFORE, in consideration of PCN3's withdrawal of its Request for Review in this matter and in further consideration of the timely payment to the DLSE of the SETTLEMENT AMOUNT on or before September 30, 2016, and upon said payment, the undersigned hereby releases and forever discharges PCN3, its past, present and future parent companies, divisions, subsidiaries, affiliates, related corporations and entities, members, directors, sureties, bond holders, subcontractors, employees, officers, stockholders, predecessors, successors and assigns, attorneys and agents from all claims arising out of DLSE Case No. 40-47265-404; ODL Case Nos. 16-0062-PWH. This is a full release of all such claims against PCN3 arising out of said CWPA and THE LITIGATION whether known or unknown, suspected or unsuspected relating to work done by PCN3 on the PROJECT.

LB6038

PCN3, INC.
Case No. 16-0062-PWH
DSLE No. 40-47265-404

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8. 5. PCN3 disputes the claims made by the DLSE in the CWPA and in THE LITIGATION.

9. DLSE also releases any and all claims by the DLSE to any PROJECT funds being retained by the AWARDING BODY on the basis of the CWPA referenced in Paragraph 1 above, and if required by the AWARDING BODY, DLSE agrees to deliver to the AWARDING BODY a Release of Civil Wage and Penalty Assessment, indicating that the CWPA is no longer subject to judicial review.

SIGNATURES

I certify that I have read this Settlement Agreement and Release and fully understand it, and in witness I have executed this Release on this 7th day of September, 2016, at Los Angeles, California. The undersigned represents and warrants that he has full authority to execute this Settlement Agreement and Release on behalf of the Division of Labor Standards Enforcement, Department of Industrial Relations, State of California, and that no legislative act or judicial act or approval is necessary to give effect to this Release.

DIVISION OF LABOR STANDARDS ENFORCEMENT
Department of Industrial Relations State of California

By: 

ABDEL NASSAR, ESQ.

Attorney for the Labor Commissioner

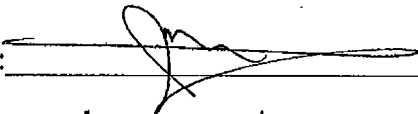
LB6038

PCN3, INC.
Case No. 16-0062-PWH
DSLE No. 40-47265-404

BA

I hereby certify that I have read this Settlement Agreement and Release and fully understand it, warrant that I have full authority to execute this Settlement Agreement and Release, and in witness I have executed this Release on this 6th day of September, 2016, at Irvine, California.

PCN3, INC.

By: 
Its: vice-president.

LB6038

PCN3, INC.
Case No. 16-0062-PWH
DSLE No. 40-47265-404

BA

Exhibit # 7

RELEASE AGREEMENT

This Agreement is made by the DIVISION OF LABOR STANDARDS ENFORCEMENT, Department of Industrial Relations, State of California ("DLSE"), in favor of PCN3, Inc. ("CONTRACTOR") with reference to the following facts:

RECITALS

1. On December 14, 2015 DLSE served a Civil Wage and Penalty Assessment ("CWPA") on CONTRACTOR, BREA OLINDA UNIFIED SCHOOL DISTRICT ("AWARDING BODY"), and FIRST NATIONAL INSURANCE COMPANY OF AMERICA ("SURETY"), in DLSE Case No. 40-41412-223, claiming gross wages due and owing in the amount of \$660,731.74, combined penalties pursuant to Labor Code sections 1775 and 1813 in the amount of \$422,215.00, penalties pursuant to Labor Code section 1776(h) in the amount of \$69,600.00, penalties pursuant to Labor Code section 1777.7 in the amount of \$58,560.00, and potential liquidated damages in the amount of \$660,731.74, said amounts alleged to be due and owing by CONTRACTOR as a result of violations of the prevailing wage laws of the State of California involving workers employed by CONTRACTOR and violations of CONTRACTOR'S duties and obligations pursuant to Labor Code 1777.5 relating to the employment of apprentices on a public works project awarded to CONTRACTOR by AWARDING BODY, known as OLINDA ELEMENTARY SCHOOL project (Bid #12-02) ("PROJECT").

2. CONTRACTOR filed a Request for Review of the CWPA, which is now pending In the Request for Review of PCN3, Inc. OD Legal

Case No. 16-0074-PWH with the Office of the Director, Department of Industrial Relations ("THE LITIGATION").

3. On or about February 5, 2016, CONTRACTOR submitted an undertaking to the Department of Industrial Relation's Cashiering Unit, in the amount of \$1,211,106.74.

4. On or about March 12, 2018, upon receipt of additional evidence from CONTRACTOR, DLSE issued a revised audit, by which the amount of unpaid gross wages and training funds due was reduced from \$660,731.74 to \$83,564.49; and the amount of combined penalties pursuant to Labor Code sections 1775 and 1813 was reduced from \$422,215.00 to \$71,620.00.

5. CONTRACTOR has agreed to resolve all claims concerning the CWPA identified above and THE LITIGATION identified above as follows: CONTRACTOR will immediately withdraw its Request for Review, and pay to DLSE the amount of \$131,724.49 ("SETTLEMENT AMOUNT"), representing \$81,048.17 in gross wages, \$2,516.32 in training funds, \$29,900.00 in combined Labor Code section 1775 and 1813 penalties, \$5,000.00 in Labor Code section 1776(h) penalties, and \$13,260.00 in Labor Code section 1777.7 penalties, no later than May 7, 2018. CONTRACTOR agrees that time is of the essence, that timely payment as specified herein is a material part of this agreement, and that should any payment be made late, CONTRACTOR shall be in breach of this agreement and DLSE will be entitled to obtain a judgment for the full amount of penalties assessed pursuant to Labor Code sections 1776(h) and 1777.7 and the revised

amounts in paragraph 4 above, including applicable interest, less credit for any payments actually made toward the SETTLEMENT AMOUNT.

6. Upon timely payment of the SETTLEMENT AMOUNT, DLSE will release CONTRACTOR, AWARDING BODY, and SURETY from any and all claims by DLSE for wages and penalties under Labor Code sections 1775, 1776, 1813 and 1777.7 arising out of the PROJECT (including interest, costs and attorney fees), resulting from acts or omissions by CONTRACTOR concerning the PROJECT. CONTRACTOR agrees to send a check for the SETTLEMENT AMOUNT payable to "DIVISION OF LABOR STANDARDS ENFORCEMENT" to:

Division of Labor Standards Enforcement
c/o Attorney Lance A. Grucela
7575 Metropolitan Drive, Suite 210
San Diego, CA 92108

7. CONTRACTOR agrees that time is of the essence, that timely payment is a material part of this agreement, and that CONTRACTOR'S payment shall be received by DLSE on or before May 7, 2018.

8. This Agreement does not contemplate or address responsibility for payment of taxes on the SETTLEMENT AMOUNT.

AGREEMENT

NOW, THEREFORE, in consideration of the timely payment to the DLSE of the SETTLEMENT AMOUNT, and conditioned upon said payment, and in further consideration for CONTRACTOR'S withdrawal of its Request for Review, DLSE will release CONTRACTOR, AWARDING BODY, and SURETY from any liability relating to THE LITIGATION and the

CWPA including claims for money on: Unpaid prevailing wages, interest under Labor Code section 1741, liquidated damages under Labor Code section 1742.1, and monetary penalties under Labor Code sections 1775, 1776, 1777.7 and 1813 (including costs and attorney fees) resulting from any claims of work performed by workers employed on the PROJECT by CONTRACTOR.

I hereby certify that I have read all of this Release Agreement, and fully understand same, and in witness thereof I have executed this Release Agreement on this 27th day of March, 2018 at San Diego, California.

Under penalty of perjury, the undersigned represents and warrants that she or he has full authority to execute this Release Agreement on behalf of the Division of Labor Standards Enforcement, Department of Industrial Relations, State of California, and that no legislative act or judicial act or approval is necessary to give effect to this Release.

DIVISION OF LABOR STANDARDS ENFORCEMENT
Department of Industrial Relations
State of California

By: Michael Nagtalon
MICHAEL NAGTALON
Senior Deputy Labor Commissioner

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I hereby certify that I have read this Release Agreement and fully understand it, warrant that I have full authority to execute this Settlement Agreement and Release, and in witness I have executed this Release on this 29th day of March 2018, at Los Angeles, California.

PCN3, INC.

By: _____


BRIAN ABGHARI
Vice President

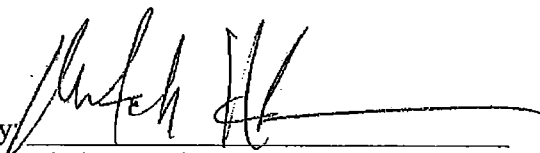
WITHDRAWAL OF REQUEST FOR REVIEW

Hearing Officer Howard Wien
OFFICE OF THE DIRECTOR, LEGAL UNIT
Department of Industrial Relations
355 S. Grand Avenue Suite 1400
Los Angeles, CA 90071

Re: In the Matter of the Request for Review of:
PCN3, INC.
DLSE Case Nos.: 40-42384-404
ODL No.: 15-0463-PWH

The DLSE and the Party Requesting Review, **PCN3, INC.**, have agreed to a settlement in the above-captioned matter, therefore, PCN3, INC., by and through its attorney, Mitch Hannah, hereby withdraws its Requests for Review filed in the above-captioned matter.

DATED: January 30, 2017

By 
Mitch Hannah, Attorney for PCN3, INC.

Instructions to Requesting Party:

- 1) Please sign, date and email this sheet to Simone Olsen at solsen@dir.ca.gov, or fax it at 213-576-7735. Also send a "wet" copy to the address listed above.
- 2) Please also send a copy to Abdel Nassar at anassar@dir.ca.gov, or by fax at 213-897-2877.

PCN3, Inc.

Labor Compliance Update (10.22.20)

Please see below for detailed information regarding each project:

Willow Campus Multi-Purpose Room

Payroll, original check subs, and timecard records have been reviewed through 7.26.20 (Final). RFI sent on 10.22.20 requesting supplemental payroll documentation and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project and will achieve close-out upon submission of all requested documentation.

Negocio Building 1st Floor Renovation

Payroll, original check subs, and timecard records have been reviewed through 10.11.20 (pending final). RFI sent on 10.22.20 requesting supplemental payroll documentation, payroll revision, and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

Los Nietos Community & Senior Center

Payroll, original check stubs, and timecard records have been reviewed through 10.4.20 (Final). RFI sent on 10.22.20 requesting supplemental payroll documentation and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

TUSD New Gyms

Payroll, original check stubs, and timecard records have been reviewed through 10.11.20. RFI sent on 10.22.20 requesting supplemental payroll documentation and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

Downey Fire Station 1

Payroll, original check stubs, and timecard records have been reviewed through 3.22.20 (Final). RFI sent on 10.22.20 requesting supplemental payroll documentation, clarification for fringe discrepancies, and fringe documentation. The due date is 10.22.20. PCN3 currently holds a **compliant** status on the project and will achieve close-out upon submission of all requested documentation.

Downey Fire Station 3

Payroll, original check stubs, and timecard records have been reviewed through 5.17.20 (Final). RFI sent on 10.22.20 requesting proof of restitution payment. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project and will achieve close-out upon submission of all requested documentation.

Sierra Vista VIP Office

Payroll, original check stubs, and timecard records have been reviewed through 1.26.20 (Final). RFI sent on 10.22.20 requesting supplemental payroll documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project and will achieve close-out upon submission of all requested documentation.

Orange Fire Station 2

Payroll, original check stubs, and timecard records have been reviewed through 10.11.20. RFI sent on 10.22.20 requesting supplemental payroll documentation, eCPR to the DIR website, clarification for a timecard discrepancy, and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

Estancia HS Aquatic Center

Payroll, original check stubs, and timecard records have been reviewed through 8.16.20 (Final). All items have been resolved; a project completion summary was provided on 10.22.20.

Caltrans Station

Payroll, original check stubs, and timecard records have been reviewed through 10.11.20. RFI sent on 10.22.20 requesting supplemental payroll documentation and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

Fryberger ES

Payroll, original check stubs, and timecard records have been reviewed through 10.11.20. RFI sent on 10.22.20 requesting supplemental payroll documentation, revised payroll/statement of compliance, and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

Beachfront Improvements

Payroll, original check stubs, and timecard records have been reviewed through 10.11.20. RFI sent on 10.22.20 requesting supplemental payroll documentation and fringe documentation/clarification. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

Helen Stacy Kitchen Remodel

Payroll, original check stubs, and timecard records have been reviewed through 10.11.20. RFI sent on 10.22.20 requesting initial / apprentice documentation, supplemental payroll documentation, clarification for a timecard discrepancy, and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

MLK MS Mod 2

Payroll, original check stubs, and timecard records have been reviewed through 10.4.20. RFI sent on 10.22.20 requesting supplemental payroll documentation and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

Thurston Middle School

Payroll, original check stubs, and timecard records have been reviewed through 10.4.20. RFI sent on 10.22.20 requesting initial / apprentice documentation, supplemental payroll documentation, and fringe documentation. The due date is 11.5.20. PCN3 currently holds a **compliant** status on the project.

PCN3



Respectfully,

10.22.20

Chris Boswell

Compliance Analyst, Lead Site Inspector

Alliant Consulting, Inc.

619-831-0704

Chris@alliantconsulting.net

Iva@alliantconsulting.net



Exhibit #9

11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

List of current work on hand:

1st Project:

Project Name: Beachfront Improvement Project.
Project Location: Oceanside, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: CIP-13-00011
Owner: City of Oceanside
Owner address: 300 N. Coast Highway, Oceanside, CA, 92054
Owner telephone #: 760-435-3548
Owners Authorized Rep.: Mahsima Mohammadi

Architect: Safdie Rabines Architects
Architect Address: 925 Fort Stockton Dr., San Diego, CA, 92103
Architect Tel#: 619-297-6153

Project Description: Renovation building A and Building new restroom and storage building along with lift station and new exterior improvement to beachfront area at Oceanside main pier.

Type of Contract: Fixed Price
Initial Contract Value: \$9,268,000.00
Final Contract Value: \$9,414,000.00
Reason for difference: Unforeseen conditions

Percentage Complete: 20%
Contract Start Date: April of 2020
Contract initial completion Date: October of 2021
Final Completion Date: October of 2021
Reason for difference: n/a

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: 50%
Construction Type: non-rated
Occupancy Category IV: No
Complex Data/telecom/audio visual systems integration: No



11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

2nd Project:

Project Name: Martin Luther King Middle School Modernization
Project Location: San Bernardino, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: F19-05
Owner: San Bernardino City Unified School District
Owner address: 956 West 9th Street, San Bernardino, CA, 92411
Owner telephone #: 949-306-1829
Owners Authorized Rep.: Brooke Duncan

Architect: John Sergio Fisher & Associates
Architect Address: 5567 Reseda Blvd # 209, Tarzana, CA 91356
Architect Tel#: (818) 344-3045

Project Description:
Type of Contract: Fixed Price
Initial Contract Value: \$3,043,000.00
Final Contract Value: \$3,043,000.00
Reason for difference: N/A

Percentage Complete: 30%
Contract Start Date: April of 2020
Contract initial completion Date: May of 2021
Final Completion Date: May of 2021
Reason for difference: N/A

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: non-rated
Occupancy Category IV: No
Complex Data/telecom/audio visual systems integration: yes



11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

3rd Project:

Project Name: Maintenance station building at Caltrans station
Project Location: San Bernardino, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: 08-0K8404
Owner: Cal. Trans.
Owner address: 1727 – 30th street, Sacramento, CA, 95816
Owner telephone #: 951-232-3748
Owners Authorized Rep.: Samer Georges

Architect: Cal Trans Design Division
Architect Address: 1727 – 30th street, Sacramento, CA, 95816
Architect Tel#: 951-232-3748

Project Description: Building New Maintenance station building at Caltrans maintenance station at 175 West Cluster Street.

Type of Contract: Fixed Price
Initial Contract Value: \$4,296,000.00
Final Contract Value: \$4,296,000.00
Reason for difference: n/a

Percentage Complete: 40%
Contract Start Date: March of 2020
Contract initial completion Date: April of 2021
Final Completion Date: April of 2021
Reason for difference: n/a

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: 50%
Construction Type: non-rated
Occupancy Category IV: No
Complex Data/telecom/audio visual systems integration: NO



11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

4th Project:

Project Name: Fryberger Elementary School HVAC Modernization and interim housing
Project Location: Westminster, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: 1920-01
Owner: Westminster School District
Owner address: 14121 Cedarwood Ave., Westminster, CA, 92683
Owner telephone #: 714-894-7311
Owners Authorized Rep.: Brian Johnson

Architect: PBK Architects
Architect Address: 600 Anton Blvd., Suite 1375, Costa Mesa, CA, 92626
Architect Tel#: 949-548-5000

Project Description: The Project consists of Modernization to Hayden Elementary School for Westminster School District, in compliance with the Contract Documents and Code requirements. B. The furnishing of all labor, materials, equipment, services, and incidentals necessary for Work of Hayden Elementary School Modernization, 14782 Eden St. Midway City, CA 92655 C. The Project is to include, but not limited to:

- a. HVAC installation in all classrooms and Administration offices located in permanent buildings on site.
- b. Fire alarm system upgrade in all classrooms, offices and support spaces (NOT incl. Auditorium, Cafeteria & Kitchen) as well as all portable classroom buildings on site.
- c. Utility service upgrades (e.g., electrical, water, sanitary, low voltage, etc.) as required to support HVAC installation.
- d. Interior/exterior finish upgrade (e.g., ceiling tile, paint etc.) that are impacted by the HVAC installation and as directed by the District.
- e. Paint the exterior of all buildings.
- f. Administration building minor remodeling including new walls and finishes

Type of Contract: Fixed Price
Initial Contract Value: \$4,748,000.00
Final Contract Value: \$5,141,000.00
Reason for difference: Unforeseen Conditions

Percentage Complete: 67%
Contract Start Date: February of 2020
Contract initial completion Date: April of 2021
Final Completion Date: April of 2021
Reason for difference: n/a

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: 50%
Construction Type: V-1hour rated



11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

5th Project:

Project Name: Helen Stacey Middle School - Central Kitchen Renovation
Project Location: Westminster, California

Name of Prime Contractor: PCN3, INC.

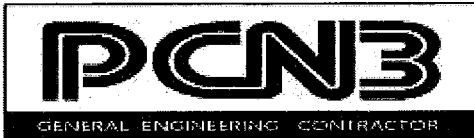
Owners Contract Number: 1920-02
Owner: Westminster School District
Owner address: 14121 Cedarwood Ave., Westminster, CA, 92683
Owner telephone #: 714-894-7311
Owners Authorized Rep.: Brian Johnson

Architect: West group Designs Inc
Architect Address: 19520 Jamboree Rd #100, Irvine, CA 92612
Architect Tel#: (949) 250-0880

Project Description: Renovation of central Kitchen at Helen Stacey Middle school.
Type of Contract: Fixed Price
Initial Contract Value: \$990,000.00
Final Contract Value: \$1,086,000.00
Reason for difference: Unforeseen Conditions

Percentage Complete: 99%
Contract Start Date: April of 2020
Contract initial completion Date: August of 2020
Final Completion Date: October of 2020
Reason for difference: 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: 50%
Construction Type: V-1hour rated



11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

6th Project:

Project Name: Thurston Middle School Classroom Mod - Bid Phase 1
Project Location: Laguna Beach, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: LBUSD 2018_6
Owner: Laguna Beach Unified School District
Owner address: 550 Blumont Street, Laguna Beach, CA 92651
Owner telephone #: 760-815-6766
Owners Authorized Rep.: Ryan Zajda

Architect: Ruhnau Clarke Architects
Architect Address: 3775 Tenth Street, Riverside, California 92501
Architect Tel: (951) 684 4664

Project Description: Renovation and addition of one classroom building in Thurston Middle School

Type of Contract: Fixed Price
Initial Contract Value: \$769,000.00
Final Contract Value: \$769,000.00
Reason for difference: N/a

Percentage Complete: 28%
Contract Start Date: September of 2020
Contract initial completion Date: March of 2021
Final Completion Date: March of 2021
Reason for difference: n/a

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



11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

7th Project:

Project Name: Orange Fire station #2 Apparatus Bay
Project Location: Orange, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: 189-42
Owner: City of Orange
Owner address: 300 E. Chapman Ave., Orange, CA, 92866
Owner telephone #: 714-744-5544
Owners Authorized Rep.: Sal Munoz

Architect: WLC Architects
Architect Address: 8163 Rochester Ave., Suite 100, Rancho Cucamonga, CA, 91730
Architect Tel#: 909-987-0909

Project Description: Work of this Contract 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

Type of Contract: Fixed Price
Initial Contract Value: \$1,986,000.00
Final Contract Value: \$2,007,000.00
Reason for difference: Unforeseen condition

Percentage Complete: 90%
Contract Start Date: November of 2019
Contract initial completion Date: June of 2020
Final Completion Date: November of 2020
Reason for difference: 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: 50%
Construction Type: V-1hour rated
Occupancy Category IV: No
Complex Data/telecom/audio visual systems integration: No



11082 Winners Circle, Unit B, Los Alamitos, CA, 90720, Phone: 562-493-4124, Fax: 562-493-4129, License#: 786518

8th Project:

Project Name: New Gym for Bert Lynn, Calle Mayor, Madrona, Magruder Middle Schools – BP#8
Project Location: Torrance, California

Name of Prime Contractor: PCN3, INC.

Owners Contract Number: 05-11.01.18
Owner: Torrance Unified School District
Owner address: 2335 Plaza Del Amo, Torrance, CA, 90509
Owner telephone #: 310-972-6500
Owners Authorized Rep.: Wolfgang Calderon

Architect: HMC Architects
Architect Address: 3546 Concourses Street, Ontario, CA, 91764
Architect Tel#: 909-989-9979

Project Description: framing scope for four New Gymnasium

Type of Contract: Fixed Price
Initial Contract Value: \$748,000.00
Final Contract Value: \$800,000.00
Reason for difference: Unforeseen Condition

Percentage Complete: 97%
Contract Start Date: January of 2019
Contract initial completion Date: January of 2020
Final Completion Date: October of 2020
Reason for difference: Due to 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: 0%
Construction Type: V-1hour rated
Occupancy Category IV: No
Complex Data/telecom/audio visual systems integration: No

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

Attachments Accessible via Link

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.](#)
8. [Training Grounds Questions and Answers](#)



Orange County Fire Authority **AGENDA STAFF REPORT**

**Board of Directors Meeting
November 19, 2020**

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

2019 Homeland Security Grant Program

Contact(s) for Further Information

Shane Sherwood, Division Chief	shanesherwood@ocfa.org	949.341.0294
Jay Barkman, Legislative Analyst	jaybarkman@ocfa.org	714.573.6048

Summary

This item is submitted for the approval and authorization for the Fire Chief to execute any necessary agreements to accept the FY 2019 Homeland Security Grant Program (HSGP) award for an Administrative Fire Captain assigned to the Orange County Intelligence Assessment Center (OCIAC).

Prior Board/Committee Action

The Board has received and approved HSGP annually since 2011 to fund this position. Budget and Finance Committee reviewed the proposed agenda item and directed staff to place on the Board of Directors meeting agenda for approval by a 7-0 vote (Farias and Rossini absent).

RECOMMENDED ACTION(S)

1. Approve and authorize the Fire Chief to execute any necessary agreement(s) to accept and administer the FY 2019 Homeland Security Grant Program.
2. Approve a budget adjustment to the FY 2020/21 General Fund (121) budget to increase revenues and expenditures by \$180,000 for the grant program award.

Impact to Cities/County

Not Applicable.

Fiscal Impact

The FY 2020/21 General Fund revenues and expenditures will be increased by \$180,000.

Background

The FY 2019 HSGP plays a significant role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal of a secure and resilient Nation. Delivering core capabilities requires the combined effort of the whole community, rather than the exclusive effort of any single organization or level of government.

The FY 2019 HSGP's allowable costs support efforts to build and sustain core capabilities across the prevention, protection, mitigation, response, and recovery mission areas.

On October 14, 2020, OCFA was notified it was awarded \$180,000 as part of the FY 2019 HSGP. The grant will fund one OCFA Fire Captain at the OCIAC who will serve as a fire agency

representative working in conjunction with law enforcement to combat and educate against terrorist's threats or acts to the citizens of Orange County.

Attachment(s)

1. FY 2019 Homeland Security Grant Program
2. Award Letter of \$180,000

**AGREEMENT TO TRANSFER PROPERTY OR FUNDS
FOR 2019 HOMELAND SECURITY GRANT PROGRAM PURPOSES**

THIS AGREEMENT is entered into this _____ day of _____, 20__, which date is enumerated for purposes of reference only, by and between the COUNTY OF ORANGE, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and _____, a (municipal corporation/special district/not-for-profit corporation), hereinafter referred to as "SUBGRANTEE."

WHEREAS, COUNTY, acting through its Sheriff-Coroner Department in its capacity as the lead agency for the Orange County Operational Area, has applied for, received and accepted a grant from the State of California, acting through its California Office of Emergency Services, to enhance county-wide emergency preparedness, hereinafter referred to as "the grant", as set forth in the grant documents that are attached hereto as Attachments A (FY 19 CA Supplement to the Federal Notice of Funding Opportunity), B (FY 19 Homeland Security Grant Program Notice of Funding Opportunity), and C (FY 19 Homeland Security Grant Assurances) and incorporated herein by reference.

WHEREAS, the terms of the grant require that COUNTY use certain grant funds to purchase equipment, technology or services that will be transferred to SUBGRANTEE to be used for grant purposes.

NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

1. COUNTY shall transfer to SUBGRANTEE the equipment, technology or services as specified in Attachment D hereto, which is incorporated herein by reference. If the grant requires COUNTY to transfer to SUBGRANTEE equipment, technology or services that COUNTY has not yet acquired, COUNTY shall transfer said equipment, technology or services to SUBGRANTEE as soon after acquisition by COUNTY as is reasonably practicable.

2. If COUNTY transfers grant funds to SUBGRANTEE, SUBGRANTEE shall use said grant funds only to acquire equipment, technology or services as set forth in Attachment B hereto and/or to perform such other grant functions, if any, for which Attachments A, B and C permit SUBGRANTEE to

1 expend grant funds. SUBGRANTEE shall provide COUNTY with a budget breakdown signed by the
2 authorized agent.

3 3. Throughout its useful life, SUBGRANTEE shall use any equipment, technology or
4 services acquired with grant funds only for those purposes permitted under the terms of the grant, and
5 shall make it available for mutual aid response.

6 4. SUBGRANTEE shall exercise due care to preserve and safeguard equipment acquired with
7 grant funds from damage or destruction and shall provide regular maintenance and repairs for said
8 equipment as are necessary, in order to keep said equipment in continually good working order. Such
9 maintenance and servicing shall be the sole responsibility of the SUBGRANTEE, who shall pay for
10 material and labor costs for any maintenance and repair of the said equipment throughout the life of the
11 said equipment.

12 5. SUBGRANTEE shall assume all continuation costs of said equipment, technologies and/or
13 services to include but not limited to upgrades, licenses and renewals of said equipment, technologies
14 and/or services.

15 6. If equipment acquired with grant funds becomes obsolete or unusable, SUBGRANTEE
16 shall notify COUNTY of such condition. SUBGRANTEE shall transfer or dispose of grant-funded
17 equipment only in accordance with the instructions of COUNTY.

18 7. SUBGRANTEE agrees to indemnify, defend and save harmless COUNTY and their
19 elected and appointed officials, officers, agents and employees from any and all claims and losses accruing
20 or resulting to any and all contractors, subcontractors, laborers, and any other person, firm or corporation
21 furnishing or supplying work services, materials or supplies in connection with SUBGRANTEE's use of
22 grant-funded equipment, technology or services and SUBGRANTEE's performance of this Agreement,
23 including Attachments A, B and C hereto, and from any and all claims and losses accruing or resulting to
24 any person, firm, or corporation who may be injured or damaged by SUBGRANTEE in SUBGRANTEE's
25 use of grant-funded equipment, technology or services and SUBGRANTEE's performance of this
26 Agreement, including Attachments A, B and C hereto.

27 8. By executing this Agreement, SUBGRANTEE agrees to comply with and be fully bound
28 by all applicable provisions of Attachments A, B and C hereto. SUBGRANTEE shall notify COUNTY

1 immediately upon discovery that it has not abided or no longer will abide by any applicable provision of
2 Attachments A, B and C hereto.

3 9. SUBGRANTEE and COUNTY shall be subject to examination and audit by the State
4 Auditor General with respect to this Agreement for a period of three years after final payment hereunder.

5 10. No alteration or variation of the terms of this Agreement shall be valid unless made in
6 writing and signed by duly authorized representatives of the parties hereto, and no oral understanding or
7 agreement not incorporated herein shall be binding on any of the parties hereto.

8 11. SUBGRANTEE may not assign this Agreement in whole or in part without the express
9 written consent of COUNTY.

10 12. For a period of three years after final payment hereunder or until all claims related to this
11 Agreement are finally settled, whichever is later, SUBGRANTEE shall preserve and maintain all
12 documents, papers and records relevant to the work performed or property or equipment acquired in
13 accordance with this Agreement, including Attachments A, B and C hereto. For the same time period,
14 SUBGRANTEE shall make said documents, papers and records available to COUNTY and the agency
15 from which COUNTY received grant funds or their duly authorized representative(s), for examination,
16 copying, or mechanical reproduction on or off the premises of SUBGRANTEE, upon request during usual
17 working hours.

18 13. SUBGRANTEE shall provide to COUNTY all records and information requested by
19 COUNTY for inclusion in quarterly reports and such other reports or records as COUNTY may be
20 required to provide to the agency from which COUNTY received grant funds or other persons or agencies.

21 14. COUNTY may terminate this Agreement and be relieved of the payment of any
22 consideration to SUBGRANTEE if a) SUBGRANTEE fails to perform any of the covenants contained in
23 this Agreement, including Attachments A, B and C hereto, at the time and in the manner herein provided,
24 or b) COUNTY loses funding under the grant. In the event of termination, COUNTY may proceed with
25 the work in any manner deemed proper by COUNTY.

26 15. SUBGRANTEE and its agents and employees shall act in an independent capacity in the
27 performance of this Agreement, including Attachments A, B and C hereto, and shall not be considered
28 officers, agents or employees of COUNTY or of the agency from which COUNTY received grant funds.

1 **IN WITNESS WHEREOF**, the parties have executed this Agreement in the County of Orange,
2 State of California.

3 DATED: _____, 2020

COUNTY OF ORANGE, a political
subdivision of the State of California

5 By _____
6 Sheriff-Coroner
7 "COUNTY"

8 APPROVED AS TO FORM:

9 COUNTY COUNSEL

10 By _____
11 Wendy Phillips, Deputy County Counsel

12 DATED: _____, 2020

14 DATED: _____ SUBGRANTEE

16 By: _____

18 Dated: _____

19 ATTEST:

20 By _____
21 City Clerk

22 DATED: _____

2019 Homeland Security Grant Program

Project Approval Notification

October 14, 2020

Chief Brian Fennessy
1 Fire Authority Rd.
Irvine, CA 92602

This letter serves to inform you that the State Homeland Security Program (SHSP) has approved your project request. This project award will recognize the Orange County Fire Authority as a contractor and not a sub-recipient. Your agency can only spend the allocated grant funding based on the preapproved project below and any administrative modifications have be requested by the County of Orange. Below is some important information related to the project approval.

- | | |
|----------------------------|---|
| • Requesting Jurisdiction: | Orange County Fire Authority |
| • Project Awarded: | OCIAC – Planning |
| • Project Allocation: | \$180,000 |
| • Awarding Agency: | Cal-OES / Department of Homeland Security |
| • Award Name: | Homeland Security Grant Program |
| • Federal Grant Number: | 2019-0035 |
| • Recipient Performance | September 1, 2019 to May 31, 2022 |
| • Contract Performance | September 1, 2019 to March 31, 2022 |
| • CFDA: | 97.067 |
| • DUNS: | 11-195-0874 |
| • Cal-OES ID: | 059-00000 |

An in depth review process of the application was necessary prior to approval. This process is required due to stringent HSGP guidelines that must be adhered to. Following the review process, your project was found to be a viable concept based on investment justifications, regional benefit, and degree of applicability to the over arching Homeland Security Grant goals and objectives.

It is critical that you become familiar with the 2019 Homeland Security Grant Program Guidance and the 2019 Homeland Security Grant Program California Supplemental Guidance. It is also imperative you contact the Homeland Security Grant Unit before funding any part of the project that may be questionable in regards to procurement guidelines and or Authorized Equipment List allowability. In order to eliminate reimbursement issues, we will seek reimbursement approval from the State on behalf of your agency or jurisdiction.

If you have any questions regarding this notification or the review process, feel free to contact me or Luis Ramirez at 714-647-1871 or luramirez@ocsd.org.

Respectfully,



Lieutenant Charlie Walters
Homeland Security Division
Orange County Sheriff's Department
clwalters@ocsd.org
714-349-9118



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 19, 2020

Agenda Item No. 2F
Consent Calendar

2019 Urban Areas Security Initiative Grant Program
Agreement to Transfer Property or Funds

Contact(s) for Further Information

Shane Sherwood, Division Chief	shanesherwood@ocfa.org	714.573.6000
Jay Barkman, Legislative Analyst	jaybarkman@ocfa.org	714.573.6048

Summary

This annual item is submitted for approval of OCFA's participation in the Fiscal Year 2019 Urban Areas Security Initiative (UASI) Grant Program for authorization for the Fire Chief to execute the necessary Agreement(s). Grant resources will be utilized to enhance OCFA's ability to prevent, prepare for, respond to, and recover from threats or acts of terrorism.

Prior Board/Committee Action

The Board has received and approved UASI Grant Program agreements annually since 2005 to ensure OCFA's eligibility to receive funds. Budget and Finance Committee reviewed the proposed agenda item and directed staff to place on the Board of Directors meeting agenda for approval by a 7-0 vote (Farias and Rossini absent).

RECOMMENDED ACTION(S)

1. Approve and authorize the Fire Chief to execute the agreement and any necessary attachments to accept and administer the Urban Area Security Initiative (UASI) Grant Program award.
2. Approve a Budget Adjustment to the FY 2020/21 General Fund (121) budget to increase revenue and expenditures by \$48,600 for the grant program award.

Impact to Cities/County

Not Applicable.

Fiscal Impact

The FY 2020/21 General Fund 121 revenues and expenditures will be increased by \$48,600.

Background

On November 13, 2003, the United States Department of Homeland Security (DHS) established the UASI Grant Program through the Federal Office of Domestic Preparedness. The grant only allowed two cities in Orange County, Anaheim and Santa Ana, to apply for funds through the UASI.

To ensure these funding sources did not undermine the regional strategic initiatives already in place, all principal parties involved formed a collaborative regional effort to facilitate the needs for the entire Orange County operational area. This ensured the funds were utilized to provide for the region and not one particular jurisdiction. Beginning in fiscal year 2006, Anaheim and Santa Ana were combined to form a single entity to administer the grant. The cities of Anaheim and

Santa Ana share the responsibilities annually alternating the function of lead administrative agency. The City of Santa Ana is the lead agency for fiscal year 2019 UASI funding. Utilizing the goals and objectives developed by the Urban Area Working Group, priorities were established in the allowable grant categories of equipment, training, organization and planning.

The OCFA has been notified that it was awarded \$48,600 as part of the FY 2019 - Rope Rescue Training Grant. The grant funds are designated for reimbursement of personnel who assist with the instruction and delivery of the approved UASI training.

Attachment(s)

1. FY 2019 UASI Grant Agreement
2. Award Letter

AGREEMENT

SUB-RECIPIENT: ORANGE COUNTY FIRE AUTHORITY

City Contract Number _____

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Exhibit C	Standard Assurances

AGREEMENT FOR TRANSFER OR PURCHASE OF EQUIPMENT/SERVICES OR FOR
REIMBURSEMENT OF TRAINING COSTS
FOR FY2019 URBAN AREAS SECURITY INITIATIVE (UASI)

BETWEEN
THE CITY OF SANTA ANA
AND ORANGE COUNTY FIRE AUTHORITY

THIS AGREEMENT is made and entered into this ____ day of MONTH, YEAR, by and between the CITY OF SANTA ANA, a municipal corporation (the "CITY"), and ORANGE COUNTY FIRE AUTHORITY (the "SUB-RECIPIENT" or "Contractor").

W I T N E S S E T H

WHEREAS, CITY, acting through the Santa Ana Police Department in its capacity as a Core City for the Anaheim/Santa Ana Urban Area under the FY2019 Urban Areas Security Initiative, has applied for, received and accepted a grant entitled "FY 2019 Urban Areas Security Initiative" from the federal Department Of Homeland Security(DHS) Federal Emergency Management Agency (FEMA), through the State of California Governor's Office of Emergency Services (CalOES), to enhance countywide emergency preparedness (the "grant"), as set forth in the grant guidelines and assurances that are incorporated to this Agreement by reference and located at:

"U.S. Department of Homeland Security "Fiscal Year 2019 Homeland Security Grant Program (HSGP) Notice of Funding Opportunity (NOFO)"
https://www.fema.gov/media-library-data/1555008381091-144e7470ec5e1958d6ad5e103c0825ad/FY_2019_HSGP_NOFO_FINAL_508.pdf

California Governor's Office of Emergency Services "FY2019 Homeland Security Grant Program: California Supplement to Federal Program Guidance and Application Kit"
<https://www.caloes.ca.gov/GrantsManagementSite/Documents/FY%202019%20HSGP%20State%20Guidance.pdf>

Copies of the grant guidelines shall be retained in the Anaheim/Santa Ana Grant Office.

WHEREAS, this financial assistance is administered by the CITY OF SANTA ANA ("CITY") and is overseen by the California Governor's Office of Emergency Services ("Cal-OES"); and

WHEREAS, this financial assistance is being provided to address the unique equipment, training, planning, and exercise needs of large urban areas, and to assist them in building an enhanced and sustainable capacity to prevent, respond to, and recover from threats or acts of terrorism; and

WHEREAS, the Anaheim/Santa Ana Urban Area ("ASAUA") consists of 34 cities in Orange County, including the City of Santa Ana and the City of Anaheim, the County of Orange, including the unincorporated area of the County of Orange, Santa Ana Unified School District Police, California State University, Fullerton, University of California, Irvine, Municipal Water District of Orange County, and the Orange County Fire Authority; and

WHEREAS, the Office of Grants Management ("OGM") awarded a FY2019 UASI Grant of \$4,850,000 ("Grant Funds") to the CITY OF SANTA ANA, as a Core City, for use in the ASAUA; and

WHEREAS, the CITY has designated the Chief of Police, or his designee and the Santa Ana Police Department, Homeland Security Division ("UASI Grant Office") to provide for terrorism prevention and emergency preparedness; and

WHEREAS, the UASI Grant Office now wishes to distribute FY2019 UASI Grant Funds throughout the ASAUA, as further detailed in this Agreement ("Agreement") to ORANGE COUNTY FIRE AUTHORITY ("SUB-RECIPIENT") and others;

WHEREAS, the CITY and SUB-RECIPIENT are desirous of executing this Agreement as authorized by the City Council and the City Manager which authorizes the CITY to prepare and execute the Agreement.

NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

I
INTRODUCTION

§101. Parties to the Agreement

The parties to this Agreement are:

- A. The CITY, a municipal corporation, having its principal office at 20 Civic Center Plaza, Santa Ana, CA 92702; and
- B. ORANGE COUNTY FIRE AUTHORITY, a municipal corporation, One Fire Authority Road, Irvine, CA 92602

§102. Representatives of the Parties and Service of Notices

- A. The representatives of the respective parties who are authorized to administer this Agreement and to whom formal notices, demands and communications shall be given are as follows:

- 1. The representative of the CITY OF SANTA ANA shall be, unless otherwise stated in the Agreement:

Michael Claborn, Commander
Santa Ana Police Department
Homeland Security Division
60 Civic Center Plaza
Santa Ana, CA 92702
Phone: (714) 245-8304
Fax: (714) 245-8098
mclaborn@santa-ana.org

- 2. The representative of ORANGE COUNTY FIRE AUTHORITY shall be:

Shane Sherwood, Division Chief
ORANGE COUNTY FIRE AUTHORITY
One Fire Authority Road, Irvine, CA 92602
Phone: (949) 236-0987
E-mail: shanesherwood@ocfa.org

- B. Formal notices, demands and communications to be given hereunder by either party shall be made in writing and may be effected by personal delivery or by registered or certified mail, postage prepaid, return receipt requested and shall be deemed communicated as of the date of mailing.
- C. If the name of the person designated to receive the notices, demands or communications or the address of such person is changed, written notice shall be given, in accord with this section, within five (5) business days of said change.

§103. Independent Party

SUB-RECIPIENT is acting hereunder as an independent party, and not as an agent or employee of the CITY OF SANTA ANA. No employee of SUB-RECIPIENT is, or shall be an employee of the CITY OF SANTA ANA by virtue of this Agreement, and SUB-RECIPIENT shall so inform each employee organization and each employee who is hired or retained under this Agreement. SUB-RECIPIENT shall not represent or otherwise hold out itself or any of its directors, officers, partners, employees, or agents to be an agent or employee of the CITY OF SANTA ANA.

§104. Conditions Precedent to Execution of This Agreement

SUB-RECIPIENT shall provide copies of the following documents to the CITY OF SANTA ANA, unless otherwise exempted.

- A. Grant Assurances in accordance with section 415C of this Agreement attached hereto as Exhibit C and made part hereof.
- B. Certifications Regarding Ineligibility, Suspension and Debarment as required by Executive Order 12549 in accordance with Section 415A12 of this Agreement and attached hereto as Exhibit A and made a part hereof.
- C. Certifications and Disclosures Regarding Lobbying in accordance with Section 415C of this Agreement and attached hereto as Exhibit B and made a part hereof. SUB-RECIPIENT shall also file a Disclosure Form at the end of each calendar quarter in which there occurs any event requiring disclosure or which materially affects the accuracy of the information contained in any Disclosure Form previously filed by SUB-RECIPIENT.

II TERM AND SERVICES TO BE PROVIDED

§201. Time of Performance

The term of this Agreement shall commence on 04/09/2020 and end on 03/31/2022 or upon the final disbursement of all of the Grant Amount (as defined in Section 301) and any additional period of time as is required to complete any necessary close out activities. Said term is subject to the provisions herein.

§202. Use of Grant Funds

- A. CITY may, a) transfer to SUB-RECIPIENT, equipment or services purchased with grant funds and in accordance with grant guidelines set forth above; or, b) reimburse SUB-RECIPIENT for purchase of authorized equipment, exercises, services or training upon receiving prior written approval from CITY or its designee and in accordance with grant guidelines and in full compliance with all of the SUB-RECIPIENT'S purchasing and bidding procedures. SUB-RECIPIENT shall specify the equipment, services, exercises and training to be purchased using the Application for Project Funding. A paper copy of this document will be provided to SUB-RECIPIENT by CITY. In addition, copies of the document will be provided electronically to SUB-RECIPIENT by CITY. If additional copies of the document are needed, SUB-RECIPIENT may contact the Santa Ana Grant Coordinator and it will be provided.
- B. SUB-RECIPIENT shall provide any reports requested by the CITY regarding the performance of the Agreement. Reports shall be in the form requested by the CITY, and shall be provided in a timely manner.
- C. SUB-RECIPIENT shall provide the CITY a copy of its most current procurement guidelines and follow its own procurement requirements as long as they meet the minimum federal requirements. Federal procurement requirements for the FY 2019 UASI Grant can be found at 2 Code of Federal Regulations (CFR) Part 200 "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards."
- D. The Authorized Equipment List (AEL) is a list of the allowable equipment which may be purchased pursuant to this Agreement and is located at http://www.fema.gov/media-library-data/20130726-1825-25045-7138/fema_preparedness_grants_authorized_equipment_list.pdf, and incorporated to this Agreement by reference. A copy of the AEL shall be retained in the Anaheim/Santa Ana Grant Office. Unless otherwise stated in program guidance any equipment acquired pursuant to this Agreement shall meet all mandatory regulations and/or DHS-adopted standards to be eligible for purchase using grant funds.

Any equipment acquired or obtained with Grant Funds:

1. Shall be made available under the California Disaster and Civil Defense Master Mutual Aid Agreement in consultation with representatives of the various fire, emergency medical, hazardous materials response services, and law enforcement agencies within the jurisdiction of the applicant;
2. Shall be consistent with needs as identified in the National Priorities and Core Capabilities, the State Homeland Security Strategy and the Anaheim/Santa Ana Urban Area and Orange County Operational Area Homeland Security Grants Strategy; and deployed in conformance with those plans;
3. Shall be made available pursuant to applicable terms of the California Disaster and Civil Defense Master Mutual Aid Agreement and deployed with personnel trained in the use of such equipment in a manner consistent with the California Law Enforcement Mutual Aid Plan or the California Fire Services and Rescue Mutual Aid Plan;
4. Shall be subject to the requirements of Title 2 CFR Part 200.313 and 200.314. For the purposes of this subsection, "Equipment" is defined as nonexpendable property that is not consumed or does not lose its identity by being incorporated into another item of equipment, which costs \$5,000 or more per unit, or is expected to have a useful life of one (1) year or more.
5. Shall be used by SUB-RECIPIENT in the program or project for which it was acquired as long as needed, whether or not the project or program continues to be supported by Federal funds. When no longer useful for the original program or project, the Equipment may be used in other activities currently or previously supported by a Federal agency.
6. Shall be made available for use on other projects or programs currently or previously supported by the Federal Government, providing such use will not interfere with the work on the projects or program for which it was originally acquired. First preference for other use shall be given to other programs or projects supported by the awarding agency.
7. Shall be recorded on a ledger. The record shall include: (a) description of the item of Equipment, (b) a serial number or other identification number, (c) the source of funding for the property (including the FAIN), (d) who holds the title, (e) the acquisition date, (f) the cost of the property, (g) percentage of Federal participation in the project costs for the Federal award under which the property was acquired, (h) location, (i) use and condition of Equipment, and (j)

ultimate disposition data including the date of disposal and sale price of the property. Records must be retained pursuant to 2 CFR Part 200.313.

8. All equipment obtained under this Agreement shall have an ASUA identification decal affixed to it, and, when practical, shall be affixed where it is readily visible.
 9. A physical inventory of the Equipment shall be taken and the results reconciled with the Equipment records at least once every two years. Inventory shall also be taken prior to any UASI, State or Federal monitor visits.
 10. SUB-RECIPIENT shall exercise due care to preserve and safeguard equipment acquired with grant funds from damage or destruction and shall provide regular maintenance and such repairs for said equipment as necessary, in order to keep said equipment continually in good working order. Such maintenance and servicing shall be the sole responsibility of SUB-RECIPIENT, who shall assume full responsibility for maintenance and repair of the equipment throughout the life of said equipment.
 11. SUB-RECIPIENT shall identify a Point-of-Contact (POC) to be responsible for all Equipment prior to the receipt of the item(s). POC will serve as the custodian of the Equipment. SUB-RECIPIENT shall notify the CITY of any change in the POC and assume the responsibility of advising the new custodian of all UASI grant program guidelines and requirements.
 12. SUB-RECIPIENT shall contact the ASUA Grant Office prior to initiating the disposition process. Disposal of equipment shall be conducted pursuant to 2 CFR Part 200.313. The ASUA will contact the awarding agency for disposition instructions, if necessary, prior to any action being taken.
- D. Any training paid pursuant to this Agreement shall conform to the guidelines as listed in FY 2019 Homeland Security Grant Program, as set forth above. All training expenses must be pre-authorized by Cal-OES at <https://www.caloes.ca.gov/CaliforniaSpecializedTrainingInstituteSite/Documents/HSG%20Funds%20Tracking%20Number%20Request%20Form.pdf>. A catalogue of Grantor approved and sponsored training courses is available at <https://cdp.dhs.gov/>.
- E. Any exercise paid pursuant to this Agreement shall conform to the guidelines as listed in FY 2019 Homeland Security Grant Program, as set forth above. Detailed Homeland Security Exercise and Evaluation Program Guidance is available at <http://hseep.dhs.gov>.

- F. Any planning paid pursuant to this Agreement shall conform to the guidelines as listed in FY 2019 Homeland Security Grant Program, as set forth above.
- G. Any organizational activities paid pursuant to this Agreement shall conform to the guidelines as listed in FY 2019 Homeland Security Grant Program, as set forth above.

III PAYMENT

§301. Payment of Grant Funds and Method of Payment

- A. CITY may, a) transfer to SUB-RECIPIENT, equipment or services purchased with grant funds; or, b) reimburse SUB-RECIPIENT for the purchase of authorized equipment, exercises, services or training upon receiving prior written approval from CITY or its designee and in accordance with grant guidelines and in full compliance with all of the SUB-RECIPIENT'S purchasing and bidding procedures. SUB-RECIPIENT shall specify the equipment, exercises, services or training to be purchased using the Application for Project Funding. A copy of this document will be provided to SUB-RECIPIENT by CITY. If additional copies of the document are needed, SUB-RECIPIENT may contact the Santa Ana Grant Coordinator and it will be provided. Funds may be used for planning, exercises, organizational and training activities, and the purchase of equipment as described in Section 202 above.
- B. SUB-RECIPIENT shall provide invoices to the CITY requesting payment and all supporting documentation. Each reimbursement request shall be accompanied by the Reimbursement Request for Grant Expenditures detailing the expenditures made by SUB-RECIPIENT as authorized by Section 202 above. Each reimbursement request shall be submitted to the Santa Ana UASI Grant Office. For equipment for which SUB-RECIPIENT is requesting reimbursement, all appropriate back-up documentation must be attached to the reimbursement form, including invoices, proof of payment, packing slips, and Equipment Reimbursement Worksheet. For training reimbursements, SUB-RECIPIENT must include a copy of any certificates issued or a copy of the class roster verifying training attendees, proof that a CalOES tracking number has been assigned to the course, timesheets and payroll registers for all training attendees, receipts for travel expenses related to the training, and Training Reimbursement Worksheet. For regional project reimbursements, SUB-RECIPIENT must include approval from the lead agency for all submitted invoices.
- C. Payment of final invoice shall be withheld by the CITY until the SUB-RECIPIENT has turned in all supporting documentation and completed the requirements of this Agreement.
- D. It is understood that the CITY makes no commitment to fund this Agreement beyond the terms set forth herein.
- E. Funding for all periods of this Agreement is subject to the continuing availability to the CITY of federal funds for this program. The Agreement may be terminated immediately upon written notice to SUB-RECIPIENT of a loss or reduction of federal grant funds.

IV STANDARD PROVISIONS

§401. Construction of Provisions and Titles Herein

All titles or subtitles appearing herein have been inserted for convenience and shall not be deemed to affect the meaning or construction of any of the terms or provisions hereof. The language of this Agreement shall be construed according to its fair meaning and not strictly for or against either party. The word "Sub-recipient" herein and in any amendments hereto includes the party or parties identified in this Agreement. The singular shall include the plural. If there is more than one Sub-recipient as identified herein, unless expressly stated otherwise, their obligations and liabilities hereunder shall be joint and several. Use of the feminine, masculine, or neuter genders shall be deemed to include the genders not used.

§402. Applicable Law, Interpretation and Enforcement

Each party's performance hereunder shall comply with all applicable laws of the United States of America, the State of California, and the CITY. This Agreement shall be enforced and interpreted under the laws of the State of California and the CITY.

If any part, term or provision of this Agreement shall be held void, illegal, unenforceable, or in conflict with any law of a federal, state or local government having jurisdiction over this Agreement, the validity of the remaining portions of provisions shall not be affected thereby.

§403. Integrated Agreement

This Agreement sets forth all of the rights and duties of the parties with respect to the subject matter hereof, and replaces any and all previous agreements or understandings, whether written or oral, relating thereto. This Agreement may be amended only by a written instrument executed by both parties hereto.

§404. Excusable Delays

In the event that performance on the part of any party hereto shall be delayed or suspended as a result of circumstances beyond the reasonable control and without the fault and negligence of said party, none of the parties shall incur any liability to the other parties as a result of such delay or suspension. Circumstances deemed to be beyond the control of the parties hereunder shall include, but not be limited to, acts of God or of the public enemy; insurrection; acts of the Federal Government or any unit of State or Local Government in either sovereign or contractual capacity; fires; floods; epidemics; quarantine

restrictions; strikes, freight embargoes or delays in transportation; to the extent that they are not caused by the party's willful or negligent acts or omissions and to the extent that they are beyond the party's reasonable control.

§405. Breach

Except for excusable delays, if any party fails to perform, in whole or in part, any promise, covenant, or agreement set forth herein, or should any representation made by it be untrue, any aggrieved party may avail itself of all rights and remedies, at law or equity, in the courts of law. Said rights and remedies are cumulative of those provided for herein except that in no event shall any party recover more than once, suffer a penalty or forfeiture, or be unjustly compensated.

§406. Prohibition Against Assignment or Delegation

SUB-RECIPIENT may not, unless it has first obtained the written permission of the CITY:

- A. Assign or otherwise alienate any of its rights hereunder, including the right to payment; or
- B. Delegate, subcontract, or otherwise transfer any of its duties hereunder.

§407. Permits

SUB-RECIPIENT and its officers, agents and employees shall obtain and maintain all permits and licenses necessary for SUB-RECIPIENT performance hereunder and shall pay any fees required therefore. SUB-RECIPIENT further certifies to immediately notify the CITY of any suspension, termination, lapses, non renewals or restrictions of licenses, certificates, or other documents.

§408. Nondiscrimination and Affirmative Action

SUB-RECIPIENT shall comply with the applicable nondiscrimination and affirmative action provisions of the laws of the United States of America, the State of California, and the CITY. In performing this Agreement, SUB-RECIPIENT shall not discriminate in its employment practices against any employee or applicant for employment because of such person's ancestry, familial status, race, color, religious creed (including religious dress and grooming practices), sex (which includes pregnancy, childbirth, breastfeeding, and medical conditions related to pregnancy, childbirth, or breastfeeding), gender, gender identity, gender expression, sexual orientation, marital status, national origin, ancestry, mental or physical disability, genetic information, medical condition, age, pregnancy, denial of medical and family care leave, or pregnancy disability (California Government Code §§ 12490, 12945, 12945.2), military or veteran status, and/or retaliation for protesting illegal discrimination related to one of these categories, or for reporting patient abuse in tax supported institutions.. SUB-RECIPIENT shall comply with Executive Order 11246, entitled "Equal

Employment Opportunity,” as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR Part 60).

If required, SUB-RECIPIENT shall submit an Equal Employment Opportunity Plan (“EEOP”) to the DOJ Office of Civil Rights (“OCR”) in accordance with guidelines listed at <http://www.ojp.usdoj.gov/ocr/eeop.htm>,

Any subcontract entered into by the SUB-RECIPIENT relating to this Agreement, to the extent allowed hereunder, shall be subject to the provisions of this § 408.

§409. Bonds

SUB-RECIPIENT must purchase a performance bond for any equipment item over \$250,000 or any vehicle (including aircraft or watercraft) financed with homeland security funds. SUB-RECIPIENT must provide a copy of performance bond to CITY no later than the time of reimbursement.

§410. Indemnification

Each of the parties to this Agreement is a public entity. In contemplation of the provisions of Section 895.2 of the Government Code of the State of California imposing certain tort liability jointly upon public entities, solely by reason of such entities being parties to an Agreement as defined by Section 895 of said Code, the parties hereto, as between themselves, pursuant to the authorization contained in Section 895.4 and 895.6 of said Code, will each assume the full liability imposed upon it or upon any of its officers, agents, or employees by law, for injury caused by a negligent or wrongful act or omission occurring in the performance of this Agreement, to the same extent that such liability would be imposed in the absence of Section 895.2 of said Code. To achieve the above-stated purpose, each party indemnifies and holds harmless the other party solely by virtue of said Section 895.2. The provision of Section 2778 of the California Civil Code is made a part hereto as if fully set forth herein. SUB-RECIPIENT certifies that it has adequate self insured retention of funds to meet any obligation arising from this Agreement.

§411. Conflict of Interest

- A. SUB-RECIPIENT covenants that none of its directors, officers, employees, or agents shall participate in selecting, or administering any subcontract supported (in whole or in part) by Federal funds where such person is a director, officer, employee or agent of the subcontractor; or where the selection of subcontractors is or has the appearance of being motivated by a desire for personal gain for themselves or others such as family business, etc.; or where such person knows or should have known that:
1. A member of such person's immediate family, or domestic partner or organization has a financial interest in the subcontract;
 2. The subcontractor is someone with whom such person has or is negotiating any prospective employment; or

3. The participation of such person would be prohibited by the California Political Reform Act, California Government Code §87100 et seq. if such person were a public officer, because such person would have a "financial or other interest" in the subcontract.

B. Definitions:

1. The term "immediate family" includes but is not limited to domestic partner and/or those persons related by blood or marriage, such as husband, wife, father, mother, brother, sister, son, daughter, father in law, mother in law, brother in law, sister in law, son in law, daughter in law.
 2. The term "financial or other interest" includes but is not limited to:
 - a. Any direct or indirect financial interest in the specific contract, including a commission or fee, a share of the proceeds, prospect of a promotion or of future employment, a profit, or any other form of financial reward.
 - b. Any of the following interests in the subcontractor ownership: partnership interest or other beneficial interest of five percent or more; ownership of five percent or more of the stock; employment in a managerial capacity; or membership on the board of directors or governing body.
- C. The SUB-RECIPIENT further covenants that no officer, director, employee, or agent shall solicit or accept gratuities, favors, anything of monetary value from any actual or potential subcontractor, supplier, a party to a sub agreement, (or persons who are otherwise in a position to benefit from the actions of any officer, employee, or agent).
- D. The SUB-RECIPIENT shall not subcontract with a former director, officer, or employee within a one year period following the termination of the relationship between said person and the Contractor.
- E. Prior to obtaining the CITY'S approval of any subcontract, the SUB-RECIPIENT shall disclose to the CITY any relationship, financial or otherwise, direct or indirect, of the SUB-RECIPIENT or any of its officers, directors or employees or their immediate family with the proposed subcontractor and its officers, directors or employees.
- F. For further clarification of the meaning of any of the terms used herein, the parties agree that references shall be made to the guidelines, rules, and laws of the SUB-RECIPIENT, State of California, and Federal regulations regarding conflict of interest.
- G. The SUB-RECIPIENT warrants that it has not paid or given and will not pay or give to any third person any money or other consideration for obtaining this

Agreement.

- H. The SUB-RECIPIENT covenants that no member, officer or employee of SUB-RECIPIENT shall have interest, direct or indirect, in any contract or subcontract or the proceeds thereof for work to be performed in connection with this project during his/her tenure as such employee, member or officer or for one year thereafter.
- I. The SUB-RECIPIENT shall incorporate the foregoing subsections of this Section into every agreement that it enters into in connection with this project and shall substitute the term "subcontractor" for the term "SUB-RECIPIENT" and "sub subcontractor" for "Subcontractor".

§412. Restriction on Disclosures

Any reports, analysis, studies, drawings, information, or data generated as a result of this Agreement are to be governed by the California Public Records Act (California Government Code Sec. 6250, et seq.).

§413. Statutes and Regulations Applicable To All Grant Contracts

- A. SUB-RECIPIENT shall comply with all applicable requirements of state, federal, county and SUB-RECIPIENT laws, executive orders, regulations, program and administrative requirements, policies and any other requirements governing this Agreement. SUB-RECIPIENT shall comply with state and federal laws and regulations pertaining to labor, wages, hours, and other conditions of employment. SUB-RECIPIENT shall comply with new, amended, or revised laws, regulations, and/or procedures that apply to the performance of this Agreement. These requirements include, but are not limited to:

- 1. Office of Management and Budget (OMB)

- SUB-RECIPIENT shall comply with 2 Code of Federal Regulation (CFR) Part 200 (Uniform Administrative, Cost Principles, and Audit Requirements for Federal Awards).

- 2. Single Audit Act

- If Federal funds are used in the performance of this Agreement, SUB-RECIPIENT shall adhere to the rules and regulations of the Single Audit Act, 31 USC Sec. 7501 et seq.; Title 2 Code of Federal Regulations, Part 200, Subpart F Audit Requirements; and any administrative regulation or field memos implementing the Act. When reporting under on the FY19 UASI Grant Program under the Single Audit Act, SUB-RECIPIENT shall use Catalog of Federal Domestic Assistance (CFDA) Program Number 97.067 "Homeland Security Grant Program"; Grant Identification Number 2019-0035; and identify the CITY OF SANTA ANA as the Pass-Through.

- 3. Americans with Disabilities Act

SUB-RECIPIENT hereby certifies that it will comply with the Americans with Disabilities Act, 42 USC §§ 12101, et seq., and its implementing regulations. SUB-RECIPIENT will provide reasonable accommodations to allow qualified individuals with disabilities to have access to and to participate in its programs, services and activities in accordance with the provisions of the Americans with Disabilities Act. SUB-RECIPIENT will not discriminate against persons with disabilities or against persons due to their relationship to or association with a person with a disability. Any subcontract entered into by the SUB-RECIPIENT, relating to this Agreement, to the extent allowed hereunder, shall be subject to the provisions of this paragraph.

4. Political and Sectarian Activity Prohibited

None of the funds, materials, property or services provided directly or indirectly under this Agreement shall be used for any partisan political activity, or to further the election or defeat of any candidate for public office. Neither shall any funds provided under this Agreement be used for any purpose designed to support or defeat any pending legislation or administrative regulation. None of the funds provided pursuant to this Agreement shall be used for any sectarian purpose or to support or benefit any sectarian activity.

If this Agreement provides for more than \$100,000 in grant funds or more than \$150,000 in loan funds, SUB-RECIPIENT shall submit to the CITY a Certification Regarding Lobbying and a Disclosure Form, if required, in accordance with 31 USC §1352. A copy of the Certificate is attached hereto as Exhibit B. No funds will be released to SUB-RECIPIENT until the Certification is filed.

SUB-RECIPIENT shall file a Disclosure Form at the end of each calendar quarter in which there occurs any event requiring disclosure or which materially affects the accuracy of any of the information contained in any Disclosure Form previously filed by SUB-RECIPIENT. SUB-RECIPIENT shall require that the language of this Certification be included in the award documents for all sub-awards at all tiers and that all subcontractors shall certify and disclose accordingly.

5. Records Inspection

In accordance with 2 CFR §200.336, at any time during normal business hours and as often as the CITY, the U.S. Comptroller General, and/or the Auditor General of the State of California may deem necessary, SUB-RECIPIENT shall make available for examination all of its records with respect to all matters covered by this Agreement. The CITY, the U.S. Comptroller General and/or the Auditor General of the State of California shall have the authority to audit, examine and make excerpts or transcripts from records,

including SUB-RECIPIENT'S invoices, materials, payrolls, records of personnel, conditions of employment and other data relating to all matters covered by this Agreement.

SUB-RECIPIENT agrees to provide any reports requested by the CITY regarding performance of the Agreement.

6. Records Maintenance

Records, in their original form, shall be maintained in accordance with requirements prescribed by the CITY with respect to all matters covered on file for all documents specified in this Agreement. Original forms are to be maintained on file for all documents specified in this Agreement. Such records shall be retained for a period of three (3) years after the CITY receives notification of grant closeout from CalOES and after final disposition of all pending matters. "Pending matters" include, but are not limited to, an audit, litigation or other actions involving records. The CITY may, at its discretion, take possession of, retain and audit said records. Records, in their original form pertaining to matters covered by this Agreement, shall at all times be retained within the County of Orange unless authorization to remove them is granted in writing by the CITY.

7. Subcontracts and Procurement

SUB-RECIPIENT shall comply with the federal and SUB-RECIPIENT standards in the award of any subcontracts. For purposes of this Agreement, subcontracts shall include but not be limited to purchase agreements, rental or lease agreements, third party agreements, consultant service contracts and construction subcontracts.

SUB-RECIPIENT shall ensure that the terms of this Agreement with the CITY are incorporated into all Subcontractor Agreements. The SUB-RECIPIENT shall submit all Subcontractor Agreements to the CITY for review prior to the release of any funds to the subcontractor. The SUB-RECIPIENT shall withhold funds to any subcontractor agency that fails to comply with the terms and conditions of this Agreement and their respective Subcontractor Agreement.

8. Labor

SUB-RECIPIENT shall comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements, and the Hatch Act (5 USC §§1501-1508 and 7324-7328).

SUB-RECIPIENT shall comply with the Federal Fair Labor Standards

Act (29 USC §201) regarding wages and hours of employment. None of the funds shall be used to promote or deter Union/labor organizing activities. CA Gov't Code Sec. 16645, et seq.

SUB-RECIPIENT shall comply with provisions which require every employer to be insured to protect workers who may be injured on the job at all times during the performance of the work of this Agreement, as per the workers compensation laws set forth in California Labor Code §§ 3700 et seq.

9. Civil Rights

SUB-RECIPIENT shall comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681- 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination against those with disabilities or access and functional needs; (d) The Age Discrimination act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) Public Health Service Act of 1912 (42 U.S.C. §§ 290), relating to confidentiality of patient records regarding substance abuse treatment; (f) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601, et seq.), as amended, relating to non-discrimination in the sale, rental or financing of housing as implemented by the Department of Housing and Urban Development at 24 C.F.R. Part 100. The prohibition on disability discrimination includes the requirement that new multifamily housing with four or more dwelling units-i.e., the public and common use areas and individual apartment units (all units in buildings with elevators and ground floor units in buildings without elevators)-be designed and constructed with certain accessible features (See 24 C.F.R. § 100.201); (g) Executive Order 11246, which prohibits federal contractors and federally assisted construction contractors and subcontractors, who do over \$10,000 in Government business in one year from discriminating in employment decisions on the basis of race, color, religion, sex, sexual orientation, gender identification, or national origin; (h) Executive Order 11375, which bans discrimination on the basis of race, color, religion, sex, sexual orientation, gender identification, or national origin in hiring and employment in both the United States federal workforce and on the part of government contractors; (i) California Public Contract Code §10295.3, which prohibits discrimination based on domestic partnerships and those in same sex marriages; (j) DHS policy to ensure the equal treatment of faith-based organizations, under which all applicants and recipients must comply with equal treatment policies and requirements contained in 6 C.F.R. Part 19; (k) Any other nondiscrimination provisions in the specific statute(s) under which application for federal

assistance is being made; and (I) The requirements of any other nondiscrimination statute(s) which may apply to the application.

10. Environmental

SUB-RECIPIENT shall comply, or has already complied, with the requirements of Titles II and III of the Uniform relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

SUB-RECIPIENT shall comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190); the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA; and Executive Order 12898 which focuses on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities; (b) Executive Order (EO) 11514; (c) notification of violating facilities pursuant to EO 11738; (d) protection of wetlands pursuant to EO 11990; (e) evaluation of flood hazards in floodplains in accordance with EO 11988; (f) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451, et seq.); (g) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401, et seq.); (h) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); (i) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205); and (j) Flood Disaster Protection Act of 1973 §102(a) (P.L. 93-234).

SUB-RECIPIENT shall comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271, et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

SUB-RECIPIENT shall comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801, et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

SUB-RECIPIENT shall comply with the Federal Water Pollution Control Act (33 U.S.C. 1251-1387) which restores and maintains the chemical, physical and biological integrity of the Nation's waters.

SUB-RECIPIENT shall comply with the Federal Clean Water Act (CWA) (33 U.S.C §1251 et seq.), which establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

SUB-RECIPIENT shall comply with Federal Clean Air Act of 1955 (42 U.S.C. § 7401) which regulates air emissions from stationary and mobile sources.

SUB-RECIPIENT shall ensure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of this project are not listed in the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the Federal Grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA.

SUB-RECIPIENT shall comply with the Energy Policy and Conservation Act (P.L. 94-163, 89 Stat. 871).

SUB-RECIPIENT shall not be: (1) in violation of any order or resolution promulgated by the State Air Resources Board or an air pollution district; (2) subject to a cease and desist order pursuant to § 13301 of the California Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) determined to be in violation of federal law relating to air or water pollution.

By signing this Agreement, SUB-RECIPIENT ensures that it is in compliance with the California Environmental Quality Act (CEQA), Public Resources Code §21000, et seq., CEQA Guidelines (California Code of Regulations, Title 14 Division 6, Chapter 3, §§ 15000-15387), and is not impacting the environment negatively.

11. Preservation

SUB-RECIPIENT shall comply with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1, et seq.).

12. Suspension and Debarment

SUB-RECIPIENT shall comply with Federal Register, Volume 68, Number 228, regarding Suspension and Debarment, and SUB-RECIPIENT shall submit a Certification Regarding Debarment required by Executive Order 12549 and any amendment thereto. Said Certification shall be submitted to the CITY concurrent with the execution of this Agreement and shall certify that neither SUB-

RECIPIENT nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any federal department head or agency. SUB-RECIPIENT shall require that the language of this Certification be included in the award documents for all sub-award at all tiers and that all subcontractors shall certify accordingly.

As required by Executive Orders (EO) 12549 and 12689, and 2 CFR §200.212 and codified in 2 CFR Part 180, Debarment and Suspension, SUB-RECIPIENT will provide protection against waste, fraud and abuse by debarring or suspending those persons deemed irresponsible in their dealings with the Federal government.

13. Drug-Free Workplace

SUB-RECIPIENT shall comply with the federal Drug-Free Workplace Act of 1988, 41 USC §701, 44 CFR Part 67; the California Drug-Free Workplace Act of 1990, CA Gov't Code §§ 8350-8357.

14. Financial Management

SUB-RECIPIENT will comply with 31 U.S.C §3729 which sets forth that no subgrantee, recipient or subrecipient shall submit a false claim for payment, reimbursement or advance.

15. Reporting – Accountability

SUB-RECIPIENT agrees to comply with applicable provisions of the Federal Funding Accountability and Transparency Act (FFATA) (2 CFR Chapter 1, Part 170), specifically (a) the reporting of sub awards obligating \$25,000 or more in federal funds and (b) executive compensation data for first-tier sub-awards. This includes the provisions of FFATA, which includes requirements on executive compensation, and also requirements implementing the Act for the non-Federal entity at 2 CFR part 25 Financial Assistance Use of Universal Identifier and Central Contractor Registration and 2 CFR part 170 Reporting Sub-award and Executive Compensation Information.

SUB-RECIPIENT must also comply with statutory requirements for whistleblower protections at 10 U.S.C. §2409, 41 U.S.C. §4712, and 10 U.S.C. §2324, 41 U.S.C. §4304 and §4310 and 31 U.S.C. §6101 et seq.

16. Human Trafficking

SUB-RECIPIENT will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. §7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in

persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or sub-awards under the award.

17. Freedom of Information Act

SUB-RECIPIENT acknowledges that all information submitted in the course of applying for funding under this program or provided in the course of an entity's grant management activities which is under Federal control is subject to the Freedom of Information Act (FOIA), 5 U.S.C. §552. SUB-RECIPIENT should also consult State and local laws and regulations regarding the release of information, which should be considered when reporting sensitive matters in the grant application, needs assessment and strategic planning process.

18. California Public Records Act

SUB-RECIPIENT acknowledges that all information submitted in the course of applying for funding under this program or provided in the course of an entity's grant management activities may be subject to the California Public Records Act (California Government Code §§6250-6276.48), which requires inspection and/or disclosure of governmental records to the public upon request, unless exempted by law.

B. Statutes and Regulations Applicable To This Particular Grant

SUB-RECIPIENT shall comply with all applicable requirements of state and federal laws, executive orders, regulations, program and administrative requirements, policies and any other requirements governing this particular grant program. SUB-RECIPIENT shall comply with new, amended, or revised laws, regulations, and/or procedures that apply to the performance of this Agreement. These requirements include, but are not limited to:

1. Title 2 Code of Federal Regulations (CFR) Part 200; EO 12372; Department of Justice (DOJ) Office of Judicial Programs (OJP) Office of the Comptroller, U.S. Department of Homeland Security, Preparedness Directorate Financial Management Guide; U.S. Department of Homeland Security, Office of Grants and Training, FY 2019 Homeland Security Grant Program –Notice of Funding Opportunity; ODP WMD Training Course Catalogue; and DOJ Office for Civil Rights.

Standardized Emergency Management System (SEMS) requirements as stated in the California Emergency Services Act, Government Code Chapter 7 of Division 1 of Title 2, § 8607.1(e) and CCR Title 19, §§ 2445-2448.

Provisions of 44 CFR applicable to grants and cooperative agreements, including Part 18, Administrative Review Procedures; Part 20, Criminal Justice Information Systems; Part 22, Confidentiality of Identifiable Research and Statistical Information; Part 23, Criminal Intelligence Systems Operating Policies; Part 30, Intergovernmental Review of Department of Justice Programs and Activities; Part 35, Nondiscrimination on the Basis of Disability in State and Local Government Services; Part 38, Equal Treatment of Faith-based Organizations; Part 42, Nondiscrimination/Equal employment Opportunities Policies and Procedures; Part 61, Procedures for Implementing the National Environmental Policy Act; Part 63, Floodplain Management and Wetland Protection Procedures; Part 64, Floodplain Management and Wetland Protection Procedures; Federal laws or regulations applicable to federal Assistance Programs; Part 69, New Restrictions on Lobbying; Part 70, Uniform Administrative Requirements for Grants and Cooperative Agreements (including sub-awards) with Institutions of Higher Learning, Hospitals and other Non-Profit Organizations; and Part 83, Government- Wide Requirements for a Drug Free Workplace (grants).

2. Travel Expenses

SUB-RECIPIENT as provided herein may be compensated for SUB-RECIPIENT'S reasonable travel expenses incurred in the performance of this Agreement, to include travel and per diem, unless otherwise expressed. Travel including in-State and out-of-State travel shall not be reimbursed without prior written authorization from the UASI Grant Office.

SUB-RECIPIENT'S travel and per diem reimbursement costs shall be reimbursed based on the SUB-RECIPIENT'S travel policies and procedures. If SUB-RECIPIENT does not have established travel policies and procedures, SUB-RECIPIENT'S reimbursement rates shall not exceed the amounts established under 5 U.S.C 5701-11, ("Travel and Subsistence Expenses; Mileage Allowances"), or by the Administrator of General Services, or by the President (or his or her designee) pursuant to any provisions of such subchapter must apply to travel under federal awards (48 CFR 31.205-46(a)).

3. Personally Identifiable Information

SUB-RECIPIENT collecting Personally Identifiable Information (PII) must have a publically-available policy that describes what PII they collect, how they plan to use the PII, whether they share PII with third parties, and how individuals may have their PII corrected where appropriate. DHS defines personally identifiable information (PII) as any information that permits the identity of an

individual to be directly or indirectly inferred, including any information that is linked or linkable to that individual.

4. Hotel and Motel Fire Safety Act of 1990

SUB-RECIPIENT must ensure that all conference, meeting, convention, or training space funded in whole or in part with Federal funds complies with Section 6 of the fire prevention and control guidelines of the Federal Fire Prevention and Control Act of 1974, 15 U.S.C. §2225a.

5. Terrorist Financing E.O. 13224

SUB-RECIPIENT must comply with U.S. Executive Order 13224 and U.S. law that prohibit transactions with, and the provisions of resources and support to, individuals and organizations associated with terrorism.

6. USA Patriot Act of 2001

SUB-RECIPIENT must comply with the requirements of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act (USA Patriot Act), which amends 18 U.S.C. §§175-175c.

7. Acknowledgement of Federal Funding from DHS

SUB-RECIPIENT must acknowledge their use of federal funding when issuing statements, press releases, requests for proposals, bid invitations, and other documents describing projects or programs funded in whole or in part with federal funds.

8. Federal Debt Status

SUB-RECIPIENT is required to be non-delinquent in their repayment of any federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowances, and benefit overpayments. See OMB Circular A-129.

9. Fly America Act of 1974

SUB-RECIPIENT must comply with Preference for U.S. Flag Air Carriers: (air carriers holding certificates under 49 U.S.C. § 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. § 40118) and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to Comptroller General Decision B-138942

10. Noncompliance

SUB-RECIPIENT understands that failure to comply with any of the above assurances may result in suspension, termination or reduction of grant funds, and repayment by SUB-RECIPIENT to CITY of any unlawful expenditures.

C. Compliance With Standard Assurances

To obtain the Grant Funds, the Grantor required an authorized representative of the CITY to sign certain promises regarding the way the Grant Funds would be spent ("Standard Assurances"), attached hereto as Exhibit C. By signing these Standard Assurances, the CITY became liable to the Grantor for any funds that are used in violation of the grant requirements. SUB-RECIPIENT shall be liable to the Grantor for any funds the Grantor determines SUB-RECIPIENT used in violation of these Grant Assurances. SUB-RECIPIENT shall indemnify and hold harmless the CITY for any sums the Grantor determines SUB-RECIPIENT used in violation of the Standard Assurances.

§414. Federal, State and Local Taxes

Federal, State and local taxes shall be the responsibility of SUB-RECIPIENT as an independent party and not as a CITY employee.

§415. Inventions, Patents and Copyrights

A. Reporting Procedure for Inventions

If any project produces any invention or discovery (Invention) patentable or otherwise under title 35 of the U.S. Code, including, without limitation, processes and business methods made in the course of work under this Agreement, the SUB-RECIPIENT shall report the fact and disclose the Invention promptly and fully to the CITY. The CITY shall report the fact and disclose the Invention to the Grantor. Unless there is a prior agreement between the CITY and the Grantor, the Grantor shall determine whether to seek protection on the Invention. The Grantor shall determine how the rights in the Invention, including rights under any patent issued thereon, will be allocated and administered in order to protect the public interest consistent with the policy ("Policy") embodied in the Federal Acquisition Regulations System, which is based on Ch. 18 of title 35 U.S.C. Sections 200, et seq. (Pub. L. 95-517, Pub. L. 98-620, 37 CFR part 401); Presidential Memorandum on Government Patent Policy to the Heads of the Executive Departments and Agencies, dated 2/18/1983; and Executive Order 12591, 4/10/87, 52 FR 13414, 3 CFR, 1987 Comp., p. 220 (as amended by Executive Order 12618, 12/22/87, 52 FR 48661, 3 CFR, 1987 Comp., p. 262). SUB-RECIPIENT hereby agrees to be bound by the Policy, and will contractually require its personnel to be bound by the Policy.

B. Rights to Use Inventions

CITY shall have an unencumbered right, and a non-exclusive, irrevocable, royalty- free license, to use, manufacture, improve upon, and allow others to do so for all government purposes, any Invention developed under this Agreement.

C. Copyright Policy

1. Unless otherwise provided by the terms of the Grantor or of this Agreement, when copyrightable material ("Material") is developed under this Agreement, the author or the CITY, at the CITY'S discretion, may copyright the Material. If the CITY declines to copyright the Material, the CITY shall have an unencumbered right, and a non-exclusive, irrevocable, royalty- free license, to use, manufacture, improve upon, and allow others to do so for all government purposes, any Material developed under this Agreement.
2. The Grantor shall have an unencumbered right, and a non-exclusive, irrevocable, royalty-free license, to use, manufacture, improve upon, and allow others to do so for all government purposes, any Material developed under this Agreement or any Copyright purchased under this Agreement.
3. SUB-RECIPIENT shall comply with all applicable requirements in the Code of Federal Regulations related to copyrights and copyright policy.

D. Rights to Data

The Grantor and the CITY shall have unlimited rights or copyright license to any data first produced or delivered under this Agreement. "Unlimited rights" means the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform and display publicly, or permit others to do so; as required by 48 CFR 27.401. Where the data are not first produced under this Agreement or are published copyrighted data with the notice of 17 U.S.C. Section 401 or 402, the Grantor acquires the data under a copyright license as set forth in 48 CFR 27.404(f)(2) instead of unlimited rights. (48 CFR 27.404(a)).

E. Obligations Binding on Subcontractors

SUB-RECIPIENT shall require all subcontractors to comply with the obligations of this section by incorporating the terms of this section into all subcontracts.

F. Patents and Intellectual Property Rights

Unless otherwise provided by law, SUB-RECIPIENT is subject to the Bayh-Dole Act, Pub. L. No. 96-517, as amended, and codified in 35 U.S.C. § 200 et seq. SUB-RECIPIENT is subject to the specific requirements governing the development, reporting, and disposition of rights to inventions and patents resulting from financial assistance awards located at 37 C.F.R. Part 401 and

the standard patent rights clause located at 37 C.F.R. § 401.14.

§416. Minority, Women, And Other Business Enterprise Outreach Program

It is the policy of the CITY to provide minority business enterprises (MBEs), women business enterprises (WBEs) and all other business enterprises an equal opportunity to participate in the performance of all SUB-RECIPIENT contracts, including procurement, construction and personal services. This policy applies to all Contractors and Sub-Contractors.

V
DEFAULTS, SUSPENSION, TERMINATION, AND AMENDMENTS

§501. Defaults

Should SUB-RECIPIENT fail for any reason to comply with the contractual obligations of this Agreement within the time specified by this Agreement, the CITY reserves the right to terminate the Agreement, reserving all rights under state and federal law.

§502. Amendments

Any change in the terms of this Agreement, including changes in the services to be performed by SUB-RECIPIENT and any increase or decrease in the amount of compensation which are agreed to by the CITY and SUB-RECIPIENT shall be incorporated into this Agreement by a written amendment properly executed and signed by the person authorized to bind the parties thereto.

SUB-RECIPIENT agrees to comply with all future CITY Directives, or any rules, amendments or requirements promulgated by the CITY affecting this Agreement.

VI
ENTIRE AGREEMENT

§601. Complete Agreement

This Agreement contains the full and complete Agreement between the two parties. Neither verbal agreement nor conversation with any officer or employee of either party shall affect or modify any of the terms and conditions of this Agreement.

§602. Number of Pages and Attachments

This Agreement is executed in two (2) duplicate originals, each of which is deemed to be an original. This Agreement includes twenty-nine (29) pages and three (3) Exhibits which constitute the entire understanding and agreement of the parties.

IN WITNESS WHEREOF, the City and ORANGE COUNTY FIRE AUTHORITY have caused this Agreement to be executed by their duly authorized representatives on the date first set forth above.

ATTEST:

CITY OF SANTA ANA, a municipal
Corporation of the State of California

By: _____
Maria D. Huizar
Clerk of the Council

By: _____
Kristine Ridge
City Manager

RECOMMENDED FOR APPROVAL:

By: _____
David Valentin
Chief of Police

SUB-RECIPIENT
ORANGE COUNTY FIRE AUTHORITY
DUNS # 07-2527005

APPROVED AS TO FORM:

By: _____

Printed Name _____

By: _____
Tamara Bogosian
Assistant City Attorney

Title

APPROVED AS TO FORM

By: _____

Printed Name _____

Title

EXHIBIT A
CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER
RESPONSIBILITY MATTERS

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature of this form provides for compliance with certification requirements under the applicable CFR covering New Restrictions on Government-wide Debarment and Suspension (Nonprocurement). The certification shall be treated as a material representation of fact upon which reliance will be placed when the Agency determines to award the covered transaction or cooperative agreement.

As required by Executive Order 12549, Debarment and Suspension, and implemented under the applicable CFR, for prospective participants in covered transactions, as defined in the applicable CFR

A. The applicant certifies that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal State or local) with commission of any of these offenses enumerated in paragraph (1) (b) of this certification; and
- (d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State or local) terminated for cause or default; and

B. Where the applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.

Authorized Agent Signature

Address: _____

Printed or Typed Name

Title

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this document, the prospective recipient of Federal assistance funds is providing the certification as set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective recipient of Federal assistance funds shall provide immediate written notice to the person to whom this agreement is entered, if at any time the prospective recipient of Federal assistance funds learns that its certification was erroneous, when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549.
5. The prospective recipient of Federal assistance funds agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective recipient of Federal assistance funds further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Procurement or Non Procurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under Paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

EXHIBIT B

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL "Disclosure Form to Report Lobbying" in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
4. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352 Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

AGREEMENT NUMBER

CONTRACTOR/BORROWER/AGENCY

NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

SIGNATURE

DATE

EXHIBIT C
California Governor's Office of Emergency Services
Standard Assurances
(For All Cal OES Federal Grant Programs)

As the duly authorized representative of the Applicant, I hereby certify that the Applicant has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay any non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application, within prescribed timelines.

I further acknowledge that the Applicant is responsible for reviewing and adhering to all requirements within the:

- (a) Applicable Federal Regulations (see below);
- (b) Federal Program Notice of Funding Opportunity (NOFO);
- (c) Federal Preparedness Grants Manual;
- (d) California Supplement to the NOFO; and
- (e) Federal and State Grant Program Guidelines.

Federal Regulations

Government cost principles, uniform administrative requirements and audit requirements for federal grant programs are housed in Title 2, Part 200 of the Code of Federal Regulations (CFR) and in updates issued by the Office of Management and Budget (OMB) on <http://www.whitehouse.gov/omb/>.

Significant state and federal grant award requirements (some of which appear in the documents listed above) are called out below. The Applicant hereby agrees to comply with the following:

1. Proof of Authority

The Applicant will obtain written authorization from the city council, governing board or authorized body in support of this project. This written authorization must specify that the Applicant and the city council, governing board or authorized body agree:

- (a) To provide all matching funds required for said project and that any cash match will be appropriated as required.
- (b) Any liability arising out of the performance of this agreement shall be the responsibility of the Applicant and the city council, governing board or authorized body.
- (c) Grant funds shall not be used to supplant expenditures controlled by the city council, governing board or authorized body.
- (d) The official executing this agreement is, in fact, authorized to do so.

This Proof of Authority must be maintained on file and readily available upon request.

2. Period of Performance

The Applicant will initiate work after approval of the award and complete all work within the period of performance specified in the grant.

3. Lobbying and Political Activities

As required by Section 1352, Title 31 of the United States Code (U.S.C.), for persons entering into a contract, grant, loan or cooperative agreement from an agency or requests or receives from an agency a commitment providing for the United States to insure or

Initials _____

guarantee a loan, the Applicant certifies that:

- (a) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- (b) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
- (c) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

The Applicant will also comply with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and §§7324- 7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with federal funds.

Finally, the Applicant agrees that federal funds will not be used, directly or indirectly, to support the enactment, repeal, modification or adoption of any law, regulation or policy without the express written approval from the California Governor's Office of Emergency Services (Cal OES) or the federal awarding agency.

4. Debarment and Suspension

As required by Executive Orders 12549 and 12689, and 2 C.F.R. §200.212 and codified in 2 C.F.R. Part 180, Debarment and Suspension, the Applicant will provide protection against waste, fraud, and abuse by debarring or suspending those persons deemed irresponsible in their dealings with the federal government. The Applicant certifies that it and its principal, sub-grantees, recipients or sub-recipients:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
- (b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a

Initials _____

- governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (2)(b) of this certification; and
- (d) Have not within a three-year period preceding this application had one or more public transaction (federal, state, or local) terminated for cause or default.

Where the Applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.

5. Non-Discrimination and Equal Employment Opportunity

The Applicant will comply with all federal statutes relating to non-discrimination. These include, but are not limited to, the following:

- (a) Title VI of the Civil Rights Act of 1964 (Public Law (P.L.) 88-352 and 42 U.S.C. §2000d et. seq.) which prohibits discrimination on the basis of race, color, or national origin and requires that recipients of federal financial assistance take reasonable steps to provide meaningful access to persons with limited English proficiency (LEP) to their programs and services;
- (b) Title IX of the Education Amendments of 1972, (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex in any federally funded educational program or activity;
- (c) Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. §794), which prohibits discrimination against those with disabilities or access and functional needs;
- (d) Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability and requires buildings and structures be accessible to those with disabilities and access and functional needs (42 U.S.C. §§ 12101-12213.);
- (e) Age Discrimination Act of 1975, (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age;
- (f) Public Health Service Act of 1912 (42 U.S.C. §§ 290), relating to confidentiality of patient records regarding substance abuse treatment;
- (g) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §3601 et seq.), relating to nondiscrimination in the sale, rental or financing of housing as implemented by the Department of Housing and Urban Development at 24 C.F.R. Part 100. The prohibition on disability discrimination includes the requirement that new multifamily housing with four or more dwelling units—i.e., the public and common use areas and individual apartment units (all units in buildings with elevators and ground-floor units in buildings without elevators)—be designed and constructed with certain accessible features (See 24 C.F.R. § 100.201);
- (h) Executive Order 11246, which prohibits federal contractors and federally assisted construction contractors and subcontractors, who do over \$10,000 in Government business in one year from discriminating in employment decisions on the basis of race, color, religion, sex, sexual orientation, gender identification, or national origin;
- (i) Executive Order 11375, which bans discrimination on the basis of race, color, religion, sex, sexual orientation, gender identification, or national origin in hiring and employment in both the United States federal workforce and on the part of government contractors;
- (j) California Public Contract Code §10295.3, which prohibits discrimination based on domestic partnerships and those in same sex marriages;

Initials _____

- (k) DHS policy to ensure the equal treatment of faith-based organizations, under which all applicants and recipients must comply with equal treatment policies and requirements contained in 6 C.F.R. Part 19;
- (l) Any other nondiscrimination provisions in the specific statute(s) under which application for federal assistance is being made; and
- (m) The requirements of any other nondiscrimination statute(s) which may apply to the application.

In addition to the items listed in (a) through (m), the Applicant will comply with California's Fair Employment and Housing Act (FEHA). FEHA prohibits harassment and discrimination in employment because of ancestry, familial status, race, color, religious creed (including religious dress and grooming practices), sex (which includes pregnancy, childbirth, breastfeeding and medical conditions related to pregnancy, childbirth, or breastfeeding), gender, gender identity, gender expression, sexual orientation, marital status, national origin, ancestry, mental and physical disability, genetic information, medical condition, age, pregnancy, denial of medical and family care leave, or pregnancy disability leave (California Government Code §§ 12940, 12945, 12945.2), military and veteran status, and/or retaliation for protesting illegal discrimination related to one of these categories, or for reporting patient abuse in tax supported institutions.

6. Drug-Free Workplace

As required by the Drug-Free Workplace Act of 1988 (41 U.S.C. §701 et seq.), the Applicant certifies that it will maintain a drug-free workplace and a drug-free awareness program as outlined in the Act.

7. Environmental Standards

The Applicant will comply with state and federal environmental standards, which may be prescribed pursuant to the following, as applicable:

- (a) California Environmental Quality Act (CEQA) (California Public Resources Code §§ 21000- 21177), to include coordination with the city or county planning agency;
- (b) CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, §§ 15000- 15387);
- (c) Federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.), which establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters;
- (d) Federal Clean Air Act of 1955 (42 U.S.C. § 7401) which regulates air emissions from stationary and mobile sources;
- (e) Institution of environmental quality control measures under the National Environmental Policy Act (NEPA) of 1969 (P.L. 91-190); the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA; and Executive Order 12898 which focuses on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities;
- (f) Evaluation of flood hazards in floodplains in accordance with Executive Order 11988;

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- (g) Executive Order 11514 which sets forth national environmental standards;
- (h) Executive Order 11738 instituted to assure that each federal agency empowered to enter into contracts for the procurement of goods, materials, or services and each federal agency empowered to extend federal assistance by way of grant, loan, or contract shall undertake such procurement and assistance activities in a manner that will result in effective enforcement of the Clean Air Act and the Federal Water Pollution Control Act Executive Order 11990 which requires preservation of wetlands;
- (i) The Safe Drinking Water Act of 1974, (P.L. 93-523);
- (j) The Endangered Species Act of 1973, (P.L. 93-205);
- (k) Assurance of project consistency with the approved state management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.);
- (l) Conformity of Federal Actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.);
- (m) Wild and Scenic Rivers Act of 1968 (16 U.S.C. § 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

The Applicant shall not be: 1) in violation of any order or resolution promulgated by the State Air Resources Board or an air pollution district; 2) subject to a cease and desist order pursuant to § 13301 of the California Water Code for violation of waste discharge requirements or discharge prohibitions; or 3) determined to be in violation of federal law relating to air or water pollution.

8. Audits

For sub-recipients expending \$750,000 or more in federal grant funds annually, the Applicant will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and Title 2 of the Code of Federal Regulations, Part 200, Subpart F Audit Requirements.

9. Access to Records

In accordance with 2 C.F.R. §200.336, the Applicant will give the awarding agency, the Comptroller General of the United States and, if appropriate, the state, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award.

The Applicant will require any sub-recipients, contractors, successors, transferees and assignees to acknowledge and agree to comply with this provision.

10. Conflict of Interest

The Applicant will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

11. Financial Management

False Claims for Payment the Applicant will comply with 31 U.S.C §§ 3729-3733 which sets forth that no recipient shall submit a false claim for payment, reimbursement or

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advance.

12. Reporting - Accountability

The Applicant agrees to comply with applicable provisions of the Federal Funding Accountability and Transparency Act (FFATA) (P.L. 109-282), specifically (a) the reporting of sub-awards obligating \$25,000 or more in federal funds and (b) executive compensation data for first-tier sub-awards. This includes the provisions of FFATA, which includes requirements for executive compensation, and also requirements implementing the Act for the non-federal entity at 2 C.F.R. Part 25 Financial Assistance Use of Universal Identifier and Central Contractor Registration and 2 C.F.R. Part 170 Reporting Sub-award and Executive Compensation Information.

13. Whistleblower Protections

The Applicant also must comply with statutory requirements for whistleblower protections at 10 U.S.C. § 2409, 41 U.S.C. § 4712, and 10 U.S.C. § 2324, 41 U.S.C. § 4304 and § 4310.

14. Human Trafficking

The Applicant will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act of 2000, as amended (22 U.S.C. § 7104) which prohibits grant award recipients or a sub-recipient from: (1) engaging in trafficking in persons during the period of time that the award is in effect: (2) procuring a commercial sex act during the period of time that the award is in effect: or (3) using forced labor in the performance of the award or sub-awards under the award.

15. Labor Standards

The Applicant will comply with the following federal labor standards:

- (a) The Davis-Bacon Act (40 U.S.C. §§ 276a to 276a-7), as applicable, and the Copeland Act (40 U.S.C. § 3145 and 18 U.S.C. § 874) and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for federally-assisted construction contracts or subcontracts; and
- (b) The Federal Fair Labor Standards Act (29 U.S.C. § 201 et al.) as they apply to employees of institutes of higher learning (IHE), hospitals and other non-profit organizations.

16. Worker's Compensation

The Applicant must comply with provisions which require every employer to be insured to protect workers who may be injured on the job at all times during the performance of the work of this Agreement, as per the workers compensation laws set forth in California Labor Code §§ 3700 et seq.

17. Property-Related

If applicable to the type of project funded by this federal award, the Applicant will:

- (a) Comply with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of federal or federally-assisted programs. These

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- requirements apply to all interests in real property acquired for project purposes regardless of federal participation in purchase;
- (b) Comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires sub-recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more;
 - (c) Assist the awarding agency in assuring compliance with Section 106 of the
 - (d) National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470), Executive Order 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. § 469a-1 et seq.); and
 - (e) Comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. § 4831 and 24 CFR Part 35) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

18. Certifications Applicable Only to Federally-Funded Construction Projects

For all construction projects, the Applicant will:

- (a) Not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with federal assistance funds to assure nondiscrimination during the useful life of the project;
- (b) Comply with the requirements of the awarding agency with regard to the drafting, review and approval of construction plans and specifications; and
- (c) Provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.

19. Use of Cellular Device While Driving is Prohibited

Applicants are required to comply with California Vehicle Code sections 23123 and 23123.5. These laws prohibit driving a motor vehicle while using an electronic wireless communications device to write, send, or read a text-based communication. Drivers are also prohibited from the use of a wireless telephone without hands-free listening and talking, unless to make an emergency call to 911, law enforcement, or similar services.

20. California Public Records Act and Freedom of Information Act

The Applicant acknowledges that all information submitted in the course of applying for funding under this program, or provided in the course of an entity's grant management activities that are under Federal control, is subject to the Freedom of Information Act (FOIA), 5 U.S.C. § 552, and the California Public Records Act, California Government Code section 6250 et seq. The Applicant should consider these laws and consult its own State and local laws and regulations regarding the release of information when reporting sensitive matters in the grant application, needs assessment, and strategic

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planning process.

HOMELAND SECURITY GRANT PROGRAM - PROGRAM SPECIFIC ASSURANCES / CERTIFICATIONS

21. Reporting Accusations and Findings of Discrimination

If during the past three years the recipient has been accused of discrimination on any basis the recipient must provide a list of all such proceedings, pending or completed, including outcome and copies of settlement agreements to the DHS Financial Assistance Office and the DHS Office for Civil Rights and Civil Liberties (CRCL) by e-mail at crcl@hq.dhs.gov or by mail at U.S. Department of Homeland Security Office for Civil Rights and Civil Liberties, Building 410, Mail Stop #0190, Washington, D.C. 20528.

If the courts or administrative agencies make a finding of discrimination on grounds of race, color, national origin (including LEP), sex, age, disability, religion, or familial status against the recipient, or the recipients settle a case or matter alleging such discrimination, recipients must forward a copy of the complaint and findings to the DHS Financial Assistance Office and the CRCL by e-mail or mail at the addresses listed above.

The United States has the right to seek judicial enforcement of these obligations.

22. Acknowledgment of Federal Funding from DHS

All recipients must acknowledge their use of federal funding when issuing statements, press releases, requests for proposals, bid invitations, and other documents describing projects or programs funded in whole or in part with federal funds.

23. Activities Conducted Abroad

All recipients must ensure that project activities carried on outside the United States are coordinated as necessary with appropriate government authorities and that appropriate licenses, permits, or approvals are obtained.

24. Best Practices for Collection and Use of Personally Identifiable Information (PII)

DHS defines personally identifiable information (PII) as any information that permits the identity of an individual to be directly or indirectly inferred, including any information that is linked or linkable to that individual. All recipients who collect PII are required to have a publically-available privacy policy that describes standards on the usage and maintenance of PII they collect. Recipients may also find the DHS Privacy Impact Assessments: Privacy Guidance and Privacy template a useful resource respectively.

25. Copyright

All recipients must affix the applicable copyright notices of 17 U.S.C. §§ 401 or 402 and an acknowledgement of U.S. Government sponsorship (including the award number) to any work first produced under federal financial assistance awards.

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26. Duplication of Benefits

Any cost allocable to a particular federal financial assistance award provided for in 2 C.F.R. Part 200, Subpart E may not be charged to other federal financial assistance awards to overcome fund deficiencies, to avoid restrictions imposed by federal statutes, regulations, or federal financial assistance award terms and conditions, or for other reasons. However, these prohibitions would not preclude recipients from shifting costs that are allowable under two or more awards in accordance with existing federal statutes, regulations, or the federal financial assistance award terms and conditions.

27. Energy Policy and Conservation Act

All recipients must comply with the requirements of 42 U.S.C. § 6201 which contain policies relating to energy efficiency that are defined in the state energy conservation plan issued in compliance with this Act.

28. Federal Debt Status

All recipients are required to be non-delinquent in their repayment of any federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowances, and benefit overpayments. See OMB Circular A-129.

29. Fly America Act of 1974

All recipients must comply with Preference for U.S. Flag Air Carriers: (air carriers holding certificates under 49 U.S.C. § 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. § 40118) and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to Comptroller General Decision B-138942

30. Hotel and Motel Fire Safety Act of 1990

In accordance with Section 6 of the Hotel and Motel Fire Safety Act of 1990, all recipients must ensure that all conference, meeting, convention, or training space funded in whole or in part with federal funds complies with the fire prevention and control guidelines of the Federal Fire Prevention and Control Act of 1974, as amended, 15 U.S.C. § 2225a.

31. Non-supplanting Requirements

All recipients who receive federal financial assistance awards made under programs that prohibit supplanting by law must ensure that federal funds do not replace (supplant) funds that have been budgeted for the same purpose through non-federal sources.

32. Patents and Intellectual Property Rights

Unless otherwise provided by law, recipients are subject to the Bayh-Dole Act, Pub. L. No. 96-517, as amended, and codified in 35 U.S.C. § 200 et seq. All recipients are subject to the specific requirements governing the development, reporting, and disposition of rights to inventions and patents resulting from financial assistance awards located at 37 C.F.R. Part 401 and the standard patent rights clause located

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at 37 C.F.R. § 401.14.

33. SAFECOM

All recipients who receive federal financial assistance awards made under programs that provide emergency communication equipment and its related activities must comply with the SAFECOM Guidance for Emergency Communication Grants, including provisions on technical standards that ensure and enhance interoperable communications.

34. Terrorist Financing

All recipients must comply with Executive Order 13224 and U.S. law that prohibit transactions with, and the provisions of resources and support to, individuals and organizations associated with terrorism. Recipients are legally responsible to ensure compliance with the Order and laws.

35. Reporting of Matters Related to Recipient Integrity and Performance

If the total value of the recipient's currently active grants, cooperative agreements, and procurement contracts from all federal assistance offices exceeds \$10,000,000 for any period of time during the period of performance of this federal financial assistance award, you must comply with the requirements set forth in the government-wide Award Term and Condition for Recipient Integrity and Performance Matters located at 2 C.F.R. Part 200, Appendix XII, the full text of which is incorporated here by reference in the award terms and conditions.

36. USA Patriot Act of 2001

All recipients must comply with requirements of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act (USA PATRIOT Act), which amends 18 U.S.C. §§ 175–175c.

37. Use of DHS Seal, Logo, and Flags

All recipients must obtain permission from their DHS Financial Assistance Office, prior to using the DHS seal(s), logos, crests or reproductions of flags or likenesses of DHS agency officials, including use of the United States Coast Guard seal, logo, crests or reproductions of flags or likenesses of Coast Guard officials.

IMPORTANT

The purpose of the assurance is to obtain federal and state financial assistance, including any and all federal and state grants, loans, reimbursement, contracts, etc. The Applicant recognizes and agrees that state financial assistance will be extended based on the representations made in this assurance. This assurance is binding on the Applicant, its successors, transferees, assignees, etc. Failure to comply with any of the above assurances may result in suspension, termination, or reduction of grant funds.

All appropriate documentation, as outlined above, must be maintained on file by the Applicant and available for Cal OES or public scrutiny upon request. Failure to comply with these requirements may result in suspension of payments under the grant or termination of the grant or both and the sub-recipient may be ineligible for award of any future grants if the Cal OES determines that any of the following has occurred: (1) the recipient has

Initials _____

made false certification, or (2) violates the certification by failing to carry out the requirements as noted above.

All of the language contained within this document must be included in the award documents for all sub-awards at all tiers. All recipients are bound by the Department of Homeland Security Standard Terms and Conditions 2018 ,Version 8.1, hereby incorporated by reference, which can be found at: <https://www.dhs.gov/publication/fy15-dhs-standard-terms-and-conditions>.

Applicant: _____

Signature of Authorized Agent: _____

Printed Name of Authorized Agent: _____

Title: _____ Date: _____

Initials _____

MAYOR
Miguel A. Pulido
MAYOR PRO TEM
Juan Villegas
COUNCILMEMBERS
Phil Bacerra
Nelida Mendoza
David Penaloza
Vicente Sarmiento
Jose Solorio



CITY MANAGER
Kristine Ridge
CITY ATTORNEY
Sonia R. Carvalho
ACTING CLERK OF THE COUNCIL
Daisy Gomez

Attachment 2

CITY OF SANTA ANA
SANTA ANA POLICE DEPARTMENT
60 Civic Center Plaza • P.O. Box 1988
Santa Ana, California 92702
<http://www.santa-ana.org/pd>

OFFICE OF THE CHIEF OF POLICE

July 30, 2020

Brian Fennessy, Fire Chief
Orange County Fire Authority
One Fire Authority Road
Irvine, CA 92602

SUBJECT: NOTIFICATION OF SUB-RECIPIENT AWARD
FY2019 Urban Area Security Initiative (UASI) Grant Program
CFDA# 97.067 – Department of Homeland Security
Grant Number #2019-0035; NOFO #DHS-19-GPD-067-00-02;
Cal OES ID #059-95010
Sub-Recipient Performance Period: April 9, 2020 to March 31, 2022

Requesting Jurisdiction: Orange County Fire Authority
DUNS #07-2527005

Projects: 005-Training – Rope Rescue Technician \$48,600

Total Award: \$48,600

Dear Chief Fennessy:

This letter serves to inform you that the Orange County Fire Authority has been approved for grant funding under the FY2019 Urban Areas Security Initiative (UASI) Grant Program in the amount of \$48,600. Once your completed eligibility packet, including signed UASI Transfer Agreement, is received and an executed copy of the agreement is on file, reimbursement may be requested for eligible expenditures using the appropriate Anaheim/Santa Ana UASI (ASAU) forms. All activities funded with this award must be completed within the Sub-Recipient performance period.

Reimbursement for overtime and backfill for training is no longer being offered by the ASAU due to an overall reduced award received in recent years. However, the grant will continue to provide reimbursement for personnel who assist with the instruction and delivery of the approved UASI courses. The funding allocation below is being provided as an estimated value of training instructor participation based on the

SANTA ANA CITY COUNCIL

Miguel A. Pulido
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Juan Villegas
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Vicente Sarmiento
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David Penaloza
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Jose Solorio
Ward 3
jsolorio@santa-ana.org

Phil Bacerra
Ward 4
pbacerra@santa-ana.org

Nelida Mendoza
Ward 6
nmendoza@santa-ana.org

number of first responders in your agency that have been approved to teach. It is being provided for your City's respective internal budgetary needs only and does not reflect a direct allocation as in the past. Additional funds may be awarded at a later time depending on your agency's participation and available dollars.

Fire Training – Course Delivery & Hosting

Fire Department: \$48,600

It is critical that all OCFA employees involved in the FY19 UASI Grant Program become familiar with the Transfer Agreement between the City of Santa Ana and the OCFA regarding the FY19 UASI Grant Program as well as the FY19 Homeland Security Grant Notice of Funding Opportunity, the FY19 Homeland Security Grant Program California Supplemental Guidance, and the FY19 Anaheim/Santa Ana UASI Sub-Recipient Grant Guide. It imperative that the Santa Ana UASI Office is contacted before any projects are procured to ensure that Environmental Historic Preservations (EHP), Aviation/Watercraft, and Establish/Enhance Emergency Operations Center requirements have been met, as well as financial regulations pertaining to sole source. We will seek any applicable requests and approvals on your behalf to the California Governor's Office of Emergency Services (Cal OES). Sub-Recipients are also required to obtain a performance bond prior to the purchase of any equipment item over \$250,000. Performance bonds must be forwarded to the ASUA Grant Office for submission to Cal OES no later than time of reimbursement.

Sub-Recipients are encouraged to seek reimbursement through the grant cycle, as funds are expended. Final Training Reimbursement Requests are due no later than **December 31, 2021**. Final reimbursement requests for all other approved project costs are due no later than **March 31, 2022**.

This grant is subject to all provisions of 2 CFR Part 200 Subpart F – Audit Requirements. Sub-recipients are required to submit copies of completed Single Audit Reports to the ASUA Grant Office, along with any Corrective Action Plans as a result of HSGP findings.

A dated signature from you, or your authorized designee, is required below. Please sign and return the original to the ASUA Grant Office, retaining a copy for your files. If you have any questions regarding this letter, please feel free to contact Santa Ana UASI Grant Coordinator Sergeant Roland Andrade at (714) 245-8720 or randrade2@santa-ana.org.

Sincerely,



DAVID VALENTIN
Chief of Police

CC: AUTHORIZED AGENT

Name of Signatory:
Orange County Fire Authority

Date

SANTA ANA CITY COUNCIL

Miguel A. Pulido
Mayor
mpulido@santa-ana.org

Juan Villegas
Mayor Pro Tem, Ward 5
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Nelida Mendoza
Ward 6
nmendoza@santa-ana.org



Orange County Fire Authority **AGENDA STAFF REPORT**

**Board of Directors Meeting
November 19, 2020**

**Agenda Item No. 3A
Discussion Calendar**

FY 2020/21 Fiscal Update & Snowball Pension Paydown Payment

Contact(s) for Further Information

Robert Cortez, Assistant Chief Business Services Department	robertcortez@ocfa.org	714.573.6012
Tricia Jakubiak, Treasurer Treasury & Financial Planning	triciajakubiak@ocfa.org	714.573.6301
Stuart Lam, Budget Manager Treasury & Financial Planning	stuartlam@ocfa.org	714.573.6302

Summary

This item is submitted to provide a fiscal update on OCFA's Fiscal Year 2020/21 and seek approval to remit the Snowball pension paydown payment of \$12.4M included in the Adopted Budget to the Orange County Employees Retirement System (OCERS) prior to December 31, 2020.

Prior Board/Committee Action

On May 28, 2020, the OCFA Board of Directors approved the FY 2020/21 Budget and directed staff to delay the timing for when OCFA remits the Fiscal Year 2020/21 Snowball pension paydown plan payment to OCERS until further direction is provided by the Board.

At the November 4, 2020, Budget and Finance Committee meeting, staff presented the FY 2020/21 Fiscal Update & Snowball Pension Paydown Payment item. The Budget & Finance Committee unanimously recommended approval of the item by a 7-0 vote (Farias and Rossini absent) and directed staff to place the agenda item on the Board of Directors meeting on November 19, 2020. Additionally, the Budget and Finance Committee inquired about actions taken by the Board in May related to cash contract city charges and expressed desire for additional discussions on that topic. Staff reported that, per the Board's direction, staff has been working with Chair Hasselbrink to form a new Ad Hoc Committee for the study of cash contract charges. We anticipate the Ad Hoc Committee to begin its work in January or February, 2021.

RECOMMENDED ACTION(S)

1. Receive and file the FY 2020/21 Fiscal Update.
2. Direct staff to remit the FY 2020/21 budgeted Snowball pension paydown payment of \$12.4 million to OCERS prior to December 31, 2020.

Impact to Cities/County

To date, the OCFA's Snowball Pension Paydown Plan has produced interest savings totaling \$24,582,776 on behalf of all OCFA member agencies. Continued progress with the Snowball payments that are included in each annual budget will generate even greater interest savings, resulting in lower required employer contributions over the long-term.

Fiscal Impact

The Board adopted FY2020/21 Budget includes the Snowball pension paydown payment of \$12.4 million, in compliance with the Fourth Amendment to the OCFA's Joint Powers Agreement.

Background

At the time of the FY2020/21 Budget approval process, the OCFA was in the midst of a global COVID-19 Pandemic that created a heightened level of uncertainty regarding budget assumptions for Property Tax revenue, OCERS investment rate of return, magnitude of COVID-19 related cost impacts, and MOU negotiations. The extent of COVID-19 impacts were yet unknown and led to an extensive discussion during the May 13, 2020, Budget & Finance Committee regarding the proposed FY2020/21 budget, the Snowball pension paydown payment, and the possibility of mitigating impacts to cash contract cities. Given the discussion, staff prepared three options for the Board's consideration regarding the approval of the FY 2020/21 Budget. One of the options for Board consideration included the delay of the \$12.4M Snowball pension paydown payment to allow staff additional time to receive and review updated property tax and OCERS information, and to gain a better understanding of the financial impacts of COVID-19.

Therefore, on May 28, 2020, the OCFA Board of Directors adopted the Fiscal Year 2020/21 Budget and directed the delay in the timing of when OCFA remits the \$12.4 million Fiscal Year 2020/21 Snowball pension paydown plan payment to OCERS until further direction is provided by the Board. The Board also directed staff to remove the Snowball pension paydown payment from the cash contract city charge calculation in order to provide relief from future ongoing increases.

Since the adoption of the FY 2020/21 budget, staff has gained a better understanding of COVID-19 related revenue and expenditure impacts. This includes receiving favorable news from the County Auditor-Controller regarding the actual property tax roll for FY 2020/21, favorable news from OCERS regarding its projected investment rate of return and lower future pension costs, and successfully negotiated MOU's with the Chief Officer's Association and Local 3631.

Updated Five-Year Financial Forecast

The Five-Year Financial Forecast has been updated since Budget adoption to reflect more current information regarding OCFA's revenues and expenditures. This additional information is intended to provide the Board a snapshot of OCFA's overall fiscal health and assist in directing staff to remit the Snowball pension paydown payment to OCERS in December 2020. The Five-Year Financial Forecast includes updates to secured property taxes, CRR revenues, interest earnings, retirement contribution rates, and Chief Officer Association and Orange County Professional Firefighters, Local 3631 MOU changes (Attachment 1). Following are highlights of the Five-Year Financial Forecast adjustments:

Property Tax Revenues

Based on the recently published Assessor's Office Data, estimated secured property tax receipts are projected to be \$2.4 million (or an estimated 1%) higher than the Fiscal Year 2020/21 Budget.

CRR Revenues

The COVID-19 Pandemic presents several challenges concerning commercial and residential annual inspections. Of primary concern is the health and safety of our firefighters and inspectors; our ability to access buildings during a major shutdown; assessing risk if not

conducted; meeting State mandates that are not officially forgiven and cost recovery revenue reduction. During the Pandemic, the Community Risk Reduction Department (CRR) will continue State mandated inspections including high rise structures, jails, apartments, hotels/motels, and schools (public and private). All other annual inspections will be on temporary hold until COVID lessens and businesses regain economic strength. CRR will re-evaluate this temporary measure in January 2021. Potential revenue impacts are estimated at a \$1.4 million reduction for FY 2020/21.

Retirement Contribution Rates

OCERS provided an updated report dated July 9, 2020, prepared by Segal which included revised retirement rate projections. Compared to the retirement rate projections used in the adopted budget, from FY 2021/22 to FY 2024/25, revised retirement rates were on average 2.62% lower for non-safety employees and 2.97% lower for safety employees. This resulted in decreases to retirement costs ranging from \$4.9M to \$5.2M in the outer years of the forecast.

Pension Liability

OCERS is on a calendar year basis, and its assumed rate of return is 7.0%. As of September 2020, its year-to-date return was 2.0%. OCERS CEO recently indicated to OCFA staff that they believed they could achieve a 7.0% return by year end. If OCERS does not reach its assumed rate of return, the shortfall will be smoothed over the following five years, per OCERS' standard funding policies, along with other annual gains and losses to reduce volatility in annual retirement costs for plan sponsors.

Snowball Pension Payment Plan

The Snowball pension paydown plan was originally adopted by the Board in September 2013 and later amended in November of 2015, November of 2016 and March 2017. In late 2018, the Board formalized its commitment to the Snowball accelerated pension liability paydown plan by adopting the Fourth Amendment to the JPA and its Operative Amendments. The Fourth Amendment went into effect spring of 2019 once two-thirds of its members (16) formally approved the item by their respective governing boards. The approval process took approximately five months (November 2018 to March 2019) to secure the necessary 16 members to execute the Fourth Amendment. In total, 21 members executed the Fourth Amendment.

The Fourth Amendment to the JPA binds OCFA to remit the Snowball Pension Payment unless we meet the definition of a fiscal hardship. Section 7.C.1. of the JPA defines fiscal hardship as follows, "*Fiscal hardship shall refer to a substantial reduction in OCFA anticipated revenue and/or a significant increase in anticipated expenses that are beyond the reasonable control of the OCFA Board.*"

At this point in time, the OCFA does not meet the definition of a fiscal hardship. As such, staff recommends the approval of the recommended actions as stated above.

Attachment(s)

Updated Five-Year Financial Forecast

Scenario 1 - Typical Property Tax Forecast with 0% Salary Increase After MOU Expirations		PROJECTED FY 2020/21	PROJECTED FY 2021/22	PROJECTED FY 2022/23	PROJECTED FY 2023/24	PROJECTED FY 2024/25
A.	BEGINNING FUND BALANCE - All Funds Combined	214,187,358	179,225,622	179,299,228	172,984,093	175,351,647
GENERAL FUND Revenues & Expenditures						
	Property Taxes	288,007,776	296,053,767	303,750,193	314,620,205	325,542,979
	State Reimbursements	8,057,496	8,057,496	8,057,496	8,057,496	8,057,496
	Federal Reimbursements	100,000	100,000	100,000	100,000	100,000
	One-Time Grant/ABH/RDA	19,480,130	-	-	-	-
	Community Redevelopment Agency Pass-thru	16,828,753	17,017,436	18,321,556	19,346,947	19,050,047
	Cash Contracts	127,106,614	132,008,763	134,536,024	136,265,782	137,670,246
	Community Risk Reduction Fees	4,645,900	6,061,323	6,061,323	6,061,323	6,061,323
	ALS Supplies & Transport Reimbursement	4,547,600	4,547,600	4,547,600	4,547,600	4,547,600
	Interest Earnings	142,640	679,681	704,091	727,932	751,083
	Other Revenue	1,245,100	1,245,100	1,245,100	1,245,100	1,245,100
	[a] Unencumbered Fund Balance for Paydown of UAAL	3,000,000	-	-	-	-
	General Fund Revenues	473,162,009	465,771,166	477,323,383	490,972,384	503,025,875
	New Positions for New Stations	-	2,871,854	5,835,319	5,928,390	8,661,778
	Employee Salaries	233,891,419	239,252,867	240,414,444	240,902,090	240,902,090
	Retirement - Regular Annual Payments	94,443,020	92,262,219	92,530,286	93,103,956	95,084,507
	Retirement - Accelerated Pension Paydown Plan	15,368,859	14,279,280	17,787,217	20,772,547	21,814,115
	Workers' Compensation (Transfer to Fund 190)	20,093,346	25,096,683	26,357,344	27,148,064	27,962,506
	Other Insurance	35,799,840	38,336,801	40,670,547	43,156,210	45,720,766
	Medicare	3,335,213	3,389,348	3,396,280	3,403,351	3,403,351
	One-Time Grant/ABH Expenditures	617,231	-	-	-	-
	Salaries & Employee Benefits	403,548,928	415,489,053	426,991,436	434,414,608	443,549,113
	Services & Supplies/Equipment	41,830,231	33,526,388	32,468,261	32,536,137	32,541,071
	Irvine Settlement Agreement (Transfer to Fund 139)	2,668,000	2,668,000	2,668,000	2,668,000	2,668,000
	New Station/Enhancements S&S Impacts	-	155,807	320,963	330,592	535,087
	One-Time Grant Expenditures	11,907,610	-	-	-	-
	General Fund Expenditures	459,954,769	451,839,249	462,448,661	469,949,337	479,293,271
B.	Incremental Increase in GF 10% Contingency	650,421	549,890	976,948	451,535	830,237
	GENERAL FUND SURPLUS/(DEFICIT)	12,556,818	13,382,028	13,897,775	20,571,513	22,902,367
C.	Operating Transfer from Operating Contingency	-	-	-	-	-
	← Transfers to CIP Funds from General Fund Surplus	12,556,818	13,382,028	13,897,775	20,571,513	22,902,367
	One-Time Paydown of UAAL from General Fund Surplus	-	-	-	-	-
	CAPITAL IMPROVEMENT PROGRAM (CIP)					
	Interest Earnings	363,636	1,470,644	1,408,799	1,361,281	1,438,655
	Cash Contracts	1,632,441	1,681,414	1,731,857	1,783,813	1,837,329
	Developer Contributions	540,000	1,048,573	1,827,923	-	822,770
	→ Operating Transfers into CIP from General Fund Surplus	12,556,818	13,382,028	13,897,775	20,571,513	22,902,367
	Total CIP Revenues	15,092,895	17,582,658	18,866,354	23,716,607	27,001,121
	Fund 12110 - General Fund CIP	12,314,343	7,599,000	4,362,000	8,350,000	8,610,000
	Fund 123 - Fire Stations and Facilities	13,621,771	11,675,000	16,000,000	11,750,000	4,500,000
	Fund 124 - Communications & Information Systems	4,922,093	3,223,704	3,677,490	1,250,000	1,301,394
	Fund 133 - Fire Apparatus	15,596,698	6,517,421	12,945,946	10,554,957	8,298,047
	Total CIP Expenses	46,454,905	29,015,125	36,985,436	31,904,957	22,709,441
D.	CIP SURPLUS/(DEFICIT) - Deposit to/withdraw from CIP reser	(31,362,010)	(11,432,467)	(18,119,082)	(8,188,350)	4,291,680
	OTHER FUNDS					
	Fund 190 - WC Revenue - Transfer from GF	20,093,346	25,096,683	26,357,344	27,148,064	27,962,506
	Fund 190 - WC Cashflow Payments per Actuary	20,057,235	15,640,500	17,030,345	18,543,694	20,191,523
E.	Deposit to WC Cashflow Reserve	36,111	9,456,183	9,326,999	8,604,370	7,770,983
	Fund 139 - Irvine Settlement Revenue - Transfer from GF	2,668,000	2,668,000	2,668,000	2,668,000	2,668,000
	Fund 139 - Irvine Settlement Expenditures - Per Agreement	2,668,000	1,168,000	1,168,000	1,168,000	1,168,000
F.	Deposit to PARS - Pension Reserve [1]	-	1,500,000	1,500,000	1,500,000	1,500,000
G.	Fund 171 - SFDEF Expenditures	1,286,258	-	-	-	-
	ENDING FUND BALANCE (Note) - All Funds Combined	179,225,622	179,299,228	172,984,093	175,351,647	189,744,547
	Ending Balance by Fund					
	Operating Contingency (10% of Expenditures)	42,939,307	43,489,197	44,466,144	44,917,679	45,747,916
	Reserve for Cash Contract City Station Maintenance	510,000	510,000	510,000	510,000	510,000
	Structural Fire Fund Entitlement Fund (Fund 171)	3,171	3,171	3,171	3,171	3,171
	Irvine Settlement Agreement (Fund 139)	23,592,045	25,338,003	27,073,617	28,801,284	30,541,892
	CIP FUND BALANCE	12,911,623	268,093	(19,011,124)	(28,320,477)	(25,213,518)
	Workers' Compensation Cashflow Reserve (Fund 190)	99,269,476	109,690,765	119,942,284	129,439,990	138,155,087
	Total Fund Balances	179,225,622	179,299,228	172,984,093	175,351,647	189,744,547
Note:	Ending Fund Balance is calculated by adding rows A+B+C+D+E+F-G, and excludes row [a] since unencumbered fund balance is already included in the Beg. Fund Balance					

[1] The deposit to the PARS - Pension Reserve in FY2020/21 is \$1.5M. The forecast shows zero due an offset from rebudgeting \$1.5M for one-time joint police-fire training facility and bidirectional amplifier expenditures.