



PROJECT MANUAL FOR THE CONSTRUCTION
OF
**HAYWARD FIRE STATION #6 &
FIRE TRAINING CENTER**

PROJECT NOS. 07481 & 07482

**VOLUME 1 OF 8
PROCUREMENT, CONTRACTING AND GENERAL
REQUIREMENTS (DIVISIONS 00-01)**

APRIL 2020



TO DOWNLOAD PLANS AND SPECIFICATIONS
AND TO CHECK BID RESULTS
Contact Engineering & Transportation at (510) 583-4730

FOR INFORMATION REGARDING THIS PROJECT
Contact Dave Hung at (510) 583-4752

FOR CONTRACT COMPLIANCE
Contact Rita Perez at (510) 583-4801



HAYWARD

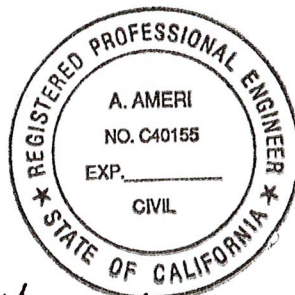
DEPARTMENT OF PUBLIC WORKS

NOTICE TO CONTRACTORS, PROJECT
MANUAL, PROPOSAL, AND CONTRACT FOR
CONSTRUCTION OF

Hayward Fire Station #6 &
Fire Training Center

Project Nos. 07481 & 07482

APRIL 2020



Alex Ameri
Director of Public Works
R.C.E. No. 40155
Expiration Date: 9/30/20

DOCUMENT 00 0109 – VOLUME DIRECTORY

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CITY OF HAYWARD
DEPARTMENT OF PUBLIC WORKS

00 11 16 – NOTICE TO CONTRACTORS

The City of Hayward will only accept bid proposals from the following three (3) prequalified General Contractors: Balfour Beatty Construction, Lathrop Construction Associates, Inc., and S. J. Amoroso Construction Co., Inc.

SEALED proposals will be received by the office of the City Clerk, First Floor, 777 "B" Street, Hayward, California 94541-5007, until **2:00 PM. on TUESDAY, May 19, 2020**, at which time they will be publicly opened and read aloud in the Conference Room 2A, Second Floor, of said building, for construction in accordance with the project drawings and project manual to which special reference is made, as follows:

Title: Hayward Fire Station #6 & Fire Training Center
Project No. 07481 & 07482

The **Hayward Fire Station #6 & Fire Training Center** project is located at: **1401 W Winton Avenue in the City of Hayward, California**. The project construction consists, in general, of:

Construction of nine (9) new structures of approximately 64,500 SF of building space consisting of Fire House/Classroom Building, Apparatus Building, Hangar Building, Training Tower, Burn Building, Storage Buildings, Underground Search & Rescue (USAR)/BART Structure, Covered Break Area Building, and Entry Structure; site and landscape improvements; parking lot; dry and wet utility lines; liquefied petroleum gas distribution; aboveground storage tank; photovoltaic system; and other work required by the project drawings and project manual.

The Engineer's estimated cost of construction for the Bid is **\$57,000,000**.

The work is to be completed within **four hundred eighty (480)** working days.

The Contractor shall pay to the City of Hayward the sum of **\$5,000** per day in excess of the number of working days prescribed above, for each and every calendar day's delay in finishing the work. See details in the Contract Documents.

At the time this contract is awarded, the Contractor shall possess a Class B license.

This contract is subject to the Community Workforce Agreement approved by the Hayward City Council on April 14, 2015. The successful bidder and all subcontractor, at any tier, will be required to sign an Agreement to be Bound which can be found in Exhibit D in the Project Manual as a condition precedent to entering into any contract for this project.

Pursuant to Public Contract Code Section 3400(c), the City Council of the City of Hayward has found that certain items are designed as City of Hayward standards and certain items are designed to match existing items in use on a particular public improvement, either completed or in the course of completion. As to such items, City of Hayward will not permit substitution. City of Hayward will not permit substitutions for the following items: Horizontal Bi-Fold by Door Engineering and Manufacturing, LLC; Fire Station Alerting System by Locution Systems, Inc.; and Fire Training Props/Simulator System by Fireblast Global.

Pursuant to Section 1770 of the Labor Code, the Director of the Department of Industrial Relations has ascertained the general prevailing rate of per diem wages applicable to the work to be performed, which rates are filed at the City of Hayward (as well as online), and copies of which are available to any interested parties on request.

In accordance with Labor Code Section 1771.1, a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, or engage in the performance of any contract for public work unless currently registered with the State Department of Industrial Relations and qualified to perform public work pursuant to Labor Code Section 1725.5. Section 1771.1 applies to any bid proposal submitted on or after March 1, 2015 and/or any contract for public work entered into on or after April 1, 2015.

Job Site Notices. Contractor shall post a Job Site Notice for this project pursuant to Title 8 California Code of Regulations Section 16451.

A bid submitted by any Contractor who is not licensed to engage in business or act in the capacity of a Contractor shall be considered non-responsive and shall be rejected, except for those exceptions governed by Section 7028.15 of the Business and Professions Code.

The City of Hayward hereby notifies all bidders that bidders will not be discriminated against on the grounds of race, color, religion, national origin, ancestry, place of birth, sex, sexual orientation, age, or disability in consideration for an award.

A pre-bid conference will be held on **Wednesday, April 22, 2020, at 9:00 AM** via [Microsoft Teams Meeting](#) (visit [ebidboard.com](#) for Website URL). The purpose of this conference is to answer Contractor's questions regarding the project requirements. The site at 1401 W Winton Avenue will be open for site visits by all interested bidders on **Thursday, April 23, 2020 from 9:00 AM to 4:00 PM**. The purpose of the site visit is for the prospective bidders to be familiar with the existing site and conditions. Attending the pre-bid conference and site visit are not conditions of submitting a bid, but prospective bidders are strongly encouraged to attend.

Bidders are required to submit any questions in writing, via e-mail, FS6FTC@hayward-ca.gov, no later than **Tuesday, May 5, 2020 by 4:00 PM**, no exceptions. No other questions will be received after the deadline. Only written inquiries will be permitted. Copies of questions and answers will then be posted on the Construction Bidboard at www.ebidboard.com in a written document to all parties who are registered plan holders on Construction Bidboard.

Each bid must be accompanied by certified or cashier's check, or bidder's bond duly executed by a responsible corporate surety authorized to issue such bonds in the State of California, made payable to the City of Hayward for an amount equal to at least ten (10) percent of the amount bid.

The successful bidder shall furnish a Labor and Materials Bond and a Faithful Performance Bond.

Bidder's attention is directed to Section 26 of document 00 72 13 ("General Conditions") "City of Hayward Non-Discriminatory Employment Practices Provision."

The Contractor may elect to receive 100 percent of payments due under the contract from time to time, without retention of any portion of the payment by the City, by depositing securities of equivalent value with the City in accordance with the provisions of Sections 22300 of the Public Contract Code. All expenses of such substitute deposit shall be borne by the Contractor. Securities eligible for investment under the section shall include those listed in Section 16430 of the California Government Code or certificates of deposit of a bank or savings and loan association. The Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon. Such securities, if deposited by the Contractor, shall be valued by the City's Finance Director (Treasurer), whose decision on valuation of the securities shall be final.

Alternatively, upon the Contractor's request, the City will make payment of retentions earned directly to the escrow agent. The Contractor may direct the investment of the payments into securities, and the Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by the Contractor. Upon satisfactory completion of the contract, the Contractor shall receive from the escrow agent all securities, interest and payments received by the escrow agent from the City, pursuant to the terms in Section 22300 of the Public Contract Code.

Bidders may download copies of the bid documents, related attachments and all future communication and correspondence regarding this bid process from Construction Bidboard at www.ebidboard.com. The City of Hayward will not be a distribution point for Drawings. The bid documents may also be reviewed at the various builders exchanges and construction service offices throughout the San Francisco Bay Area.

Project Addendum notifications will be issued through Construction Bidboard at www.ebidboard.com. Construction Bidboard will fax and/or email all notifications to all planholders.


MIRIAM LENS - City Clerk

00 21 13 - INSTRUCTIONS TO BIDDERS

Bids are requested for a general construction contract, or work described in general, as follows:

HAYWARD FIRE STATION #6 & FIRE TRAINING CENTER

1. **RECEIPT OF BIDS.** Sealed proposals will be received by the City of Hayward **City Clerk Office at 777 B Street, 4th Floor, Hayward CA 94541 until 2:00 PM on Tuesday, May 19, 2020.** Bids shall be delivered in an envelope that is clearly labeled with the name of the project. All Bids will be time stamped to reflect their submittal time. City of Hayward will reject all Bids received after the specified time and will return such Bids to Bidders unopened. Proposals will be publicly opened and read aloud in the Conference Room 2A, Second Floor, of said building.
2. **CONTACT INFORMATION:**

City of Hayward
777 B Street
Hayward, CA 94541

Email: FS6FTC@hayward-ca.gov
c/o Public Works, Dave Hung
3. **BID PROPOSAL SUBMISSION.** Bidder should mark Bid envelopes as: "PROPOSAL FOR THE HAYWARD FIRE STATION #6 & FIRE TRAINING CENTER". Bids shall be deemed to include the written responses of the Bidder to any questions or requests for information of the City of Hayward made as part of Bid prior to submission of Bid. Bidder's failure to submit all required documents strictly as required entitles City of Hayward to reject the Bid as non-responsive.
4. **SECTION DELETED.**
5. **CONTENTS OF BID ENVELOPE.** Bid Envelope shall include:
 - A. SECTION 00 41 13 (Proposal Forms P1 through P11, including Bid Form), and related documents (Paragraph 6 includes other documents that must be submitted) completed in accordance with Paragraph 6 of this Section. Form P-8 (Bidder's Bond to Accompany Proposal) for Bid security supplied and completed in accordance with paragraph 7 of this Section.
 - B. SECTION 00 43 16 (Work to be Performed by Bidder).
 - C. SECTION 00 45 11 (Bidder Registration and Safety Experience Form).
 - D. SECTION 00 45 19 (Non-collusion Affidavit).
 - E. SECTION 00 45 30 (Bidder Certifications).
6. **REQUIRED BID FORMS.** City of Hayward will reject as non-responsive any Bid not submitted on the required forms. Bids must be full and complete. Bidders must complete all Bid items and supply all information required by Bidding Sections. City of Hayward reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders may not modify the Bid Form or qualify their Bids. Bidders must submit clearly and distinctly written Bids. Bidders must clearly make any changes in their Bids by crossing out original entries, entering new entries, and initialing new entries. City of Hayward reserves the right to reject any Bid not clearly written.
7. **REQUIRED BID SECURITY.** Bidders must submit with their Bids, bidder's security made payable to the City of Hayward, either a cashier's check, or certified check from a responsible bank in the United States, or Bidder's bond signed by a responsible corporate surety insurer authorized to issue such bonds in the State of California, of not less than 10 percent of amount of Bid. All Bidders choosing to submit a surety bond must submit it on the required form P-8 (Bidder's Bond to Accompany Proposal). City of Hayward will reject as non-responsive any Bid submitted without the necessary Bid security.

The City of Hayward may retain Bid securities and Bid bonds of other than the Apparent Low Bidder for a period of 90 Days after award or full execution of the Contract, whichever first occurs. Upon full

execution of the Contract, and upon request by Bidder, City of Hayward will return to the respective unsuccessful Bidders their Bid securities and Bid bonds.

- 8. REQUIRED SUBCONTRACTORS LIST.** The Contractor shall perform with the Contractor's own organization, contract work amounting to not less than **30** percent of the original total contract price, less the administrative change order and any designated "Specialty Items" that may be performed by subcontract. The amount of any such "Specialty Items" so performed and the amount for administrative change order shall be deducted from the original contract price before computing the amount of work required to be performed by the Contractor with the Contractor's own organization.

In accordance with the requirements of the Subletting and Subcontracting Fair Practices Act, commencing with Section 4100 of the California Public Contract Code, each bidder shall list in his proposal the name, the location of the place of business, the California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render service to the prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Drawings and Project Manual, in an amount in excess of **one-half of one percent** of the prime Contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater. The bid shall also specify the portion of the work that will be done by each subcontractor listed pursuant to this paragraph. The prime Contractor shall list only one subcontractor for each portion as is defined by the prime Contractor in his or her bid.

An inadvertent error in listing the California contractor license number or public works contractor registration number provided pursuant to the above paragraph shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.

Any information requested by the City concerning any subcontractor who the prime contractor is required to list under this subdivision, other than the subcontractor's name, location of business, the California contractor license number, and the public works contractor registration number, may be submitted by the prime contractor up to 24 hours after the deadline established by the City for receipt of bids by prime contractors.

A sheet for listing all the subcontractors is included in the proposal.

The successful bidder is prohibited from performing work on the Project with any subcontractor who is ineligible to perform work on a public works project pursuant to California Labor Code 1777.1 or 1777.7. In submitted Bid, the bidder certified that it has investigated the eligibility of each and every listed subcontractor and has determined that none is ineligible to perform work pursuant to the above code provisions.

- 9. PRE-BID CONFERENCE & SITE VISIT.** A pre-bid conference will be held on **Wednesday, April 22, 2020, at 9:00 AM** via [Microsoft Teams Meeting](#) (visit ebidboard.com for Website URL). The purpose of this conference is to answer Contractor's questions regarding the project requirements. The site at 1401 W Winton Avenue will be open for site visits by all interested bidders on **Thursday, April 23, 2020 from 9:00 AM to 4:00 PM**. The purpose of the site visit is for the prospective bidders to be familiar with the existing site and conditions. Attending the pre-bid conference and site visit are not conditions of submitting a bid, but prospective bidders are strongly encouraged to attend.

10. BID QUESTIONS:

Contractors are required to submit any questions in writing, via e-mail, to: FS6FTC@hayward-ca.gov no later than **Tuesday, May 5, 2020 at 4:00 PM**. No other questions will be received after the deadline. Only written inquires will be permitted. Copies of all questions and answers will then be posted on the Construction Bidboard at www.ebidboard.com through addendum on or around **Tuesday, May 12, 2020** to all parties who are registered on the plan holders list. The City of Hayward will respond to written

inquires only.

11. OTHER REQUIREMENTS PRIOR TO BIDDING. Submission of Bid signifies Bidder's careful examination of Bidding Documents and complete understanding of the nature, extent, and location of Work to be performed. As a condition to Bidding, Bidder must complete tasks listed in Section 00 52 13 (Contract/Agreement), Article 5. Submission of Bid shall constitute Bidder's express representation to the City of Hayward that Bidder has fully completed these tasks.

12. EXISTING SOIL REPORTS AND GEOTECHNICAL DATA. Bidders may examine any available existing conditions information as well as applicable environmental assessment information regarding the Project. Section 00 31 00 (Geotechnical Data and Existing Conditions) applies to all supplied existing conditions information and geotechnical reports and all other information supplied regarding existing conditions either above ground or below ground. Documents available may be downloaded from www.ebidboard.com.

13. ADDENDA. Bidders must direct all questions about the Bidding Documents to City of Hayward in writing via email to FS6FTC@hayward-ca.gov. Interpretations or clarifications considered necessary by City of Hayward in response to such questions will be issued by Addenda and posted to www.ebidboard.com. City of Hayward may not answer questions received after the date and time noted in item 10 above. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

A. Addenda may also be issued to modify the Bidding Documents as deemed advisable by City of Hayward.

B. All addenda must be acknowledged by number and with a signature in Section 00 41 13 (Proposal) and shall be part of the Contract Documents. A complete listing of Addenda may be found on www.ebidboard.com.

14. SUBSTITUTIONS. Bidders must base Bids on products and systems specified in Contract Documents or listed by name in Addenda.

A. Except as provided in paragraph 14.C and 14.D, below, City of Hayward will consider substitution requests only for "or equal items." Bidders wanting to use "or equal" item(s) must submit Section 01 25 13 (Product Substitution Procedures) items no later than 35 days after the date of Notice of Award. After that date, the City of Hayward will not accept "or equal" substitution requests. To assess "or equal" acceptability of product or system, submittals of substitutions shall contain the information set forth in Section 01 25 13 (Product Substitution Procedures). Insufficient information will be grounds for rejection of substitution. City of Hayward shall, within a reasonable period of time after having received a request for substitution, issue in writing its decision as to whether the proposed substitute item is an "or equal" item. City of Hayward decision shall be conclusive on all Bidders.

B. No substitution requests will be accepted or considered by City of Hayward prior to the bid opening date.

C. Substitutions may be requested after submitting Bids and Award of Contract only in accordance with requirements specified in Section 01 25 13 (Product Substitution Procedures).

D. As further limitation on Bidder's privilege to substitute items, pursuant to Public Contract Code section 3400(c), the City Council of the City of Hayward has found that certain items are designed as City of Hayward standards and certain items are designed to match existing items in use on a particular public improvement, either completed or in the course of completion. As to such items, City of Hayward will not permit substitution. City of Hayward will not permit substitutions for the following items:

-Horizontal Bi-Fold by Door Engineering and Manufacturing, LLC,

-Fire Station Alerting System by Locution Systems, Inc.

-Fire Training Props/Simulator System by Fireblast Global

15. WAGE RATES.

In accordance with California Labor Code sections 1770 and 1773, City of Hayward has obtained from the Director of the Department of Industrial Relations ("DIR"), the general prevailing rate of wages applicable to the Project. These rates are set forth in a schedule located at the City of Hayward offices and can be viewed at the DIR website "www.dir.ca.gov/dlsr/statistics_research.html". Said schedule is available to any interested party on request.

Each Trade Contractor and all subcontractors of whatever tier shall pay not less than the specified rates to all workers employed by them in the execution of the Project. It is bidder's responsibility to determine any rate change, which has occurred or will occur during the intervening period between each issuance of written rates by DIR.

Trade Contractor shall comply with all requirements of the Subletting and Subcontracting Fair Practices Act, Public Contract Code section 4100 et seq. If Contractor does not specify a subcontractor for any portion of the Work valued in excess of 1/2% of the Contract Sum, it agrees to perform that portion of the Work with its own forces. Contractor shall not substitute any other person or firm as a subcontractor, other than those listed in the bid submitted, without the written approval of the owner. The owner and Construction Manager reserve the right of approval of all subcontractors proposed for use on this Project, and to this end, may require financial, performance and such additional information as is needed to secure this approval. If a subcontractor is not approved, Contractor shall promptly submit another of the same trade for approval.

Trade Contractor/Subcontractor Registration. A Contractor or Subcontractor shall not be qualified to bid on, be listed on a bid proposal (subject to the requirements of Public Contract Code section 4104), or engage in the performance of any contract for public work unless currently registered and qualified to perform public work pursuant to Labor Code section 1725.5, except under the limited circumstances set forth in Labor Code section 1771.1(a). This requirement shall apply to any bid proposal submitted and any contract for public works. The owner may not accept a bid or enter into a contract for a public works project with an unregistered contractor. Notwithstanding anything to the contrary, if at any time during the performance of the Work, the Contractor or any of its subcontractors is not duly registered pursuant to Labor Code Section 1725.5 (including, without limitation, if the DIR revokes the registration), the City may cancel the Agreement and/or replace the Contractor or subcontractor with a contractor or subcontractor that is duly registered pursuant to Labor Code Section 1725.5.

Compliance Monitoring and Enforcement. Pursuant to Labor Code section 1771.4, this Contract is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Each Trade Contractor and Subcontractor performing work on the Project shall be required to comply with the provisions of the California Labor Code, beginning with section 1720, and the regulations of the Department of Industrial Relations' Division of Labor Standards Enforcement (i.e., the Labor Commissioner), including, but not limited to, the standard provisions requiring payment of prevailing wages, maintenance and submission of certified payroll records, and the hiring of apprentices as appropriate. Unless otherwise specified, the Trade Contractor shall be required to post job site notices regarding the requirements of this paragraph, as prescribed by regulation. Trade Contractor and each Subcontractor shall be required to furnish the records specified in Labor Code section 1776 directly to the Labor Commissioner at least monthly, or more frequently if specified in the Contract Documents, and in a format prescribed by the Labor Commissioner. This requirement shall apply to all projects, whether new or ongoing, on or after January 1, 2016.

Trade Contractor shall be required to post a notice at the Project site in accordance with Title 8 of the California Code of Regulations, Section 16451 or when provided by the Department of Industrial Relations.

- 16. EQUAL EMPLOYMENT OPPORTUNITY.** Contractor shall comply with all applicable federal, state, and local laws, rules, and regulations in regard to nondiscrimination in employment because of race, color, ancestry, national origin, religion, sex, marital status, age, medical conditions, disability, or any other reason.
- 17. NONDISCRIMINATION/NON-PREFERENTIAL TREATMENT.** The successful bidder shall, in the performance of the Agreement, be required to comply with all applicable Federal, State, and City nondiscrimination/nonpreference laws and regulations.

Attention is directed to Section 1735 of the Labor Code, which reads as follows:

"No discrimination shall 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 Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

- 18. DISADVANTAGED BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE (DBE/WBE) VOLUNTARY PARTICIPATION.** The City of Hayward strongly urges prime bidders to consider utilization of subcontractors and to provide DBE/WBE subcontractors with a full and fair opportunity to submit proposals to participate on this contract. "Disadvantaged Business Enterprise (DBE) or Women Owned Business Enterprise (WBE)" means a small business concern: (a) which is at least 51 percent owned by one or more socially and economically disadvantaged individuals or women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individuals or women, (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals or women who own it, and (c) and for DBEs only, is located within the City of Hayward or certifies that it has actively participated or attempted to be active in the business community within the jurisdiction of the City of Hayward.

Prime bidders are urged but are not obligated to take the suggested "outreach efforts" listed below to reach out to potential DBE/WBE subcontractors.

The City of Hayward requests that the bidder who participates in DBE/WBE outreach completes The "Participation of DBE and WBE Information" form, which is combined with the "List of All Subcontractors and Suppliers" form in the proposal packet.

Outreach efforts are made by the prime bidder to obtain DBE/WBE participation on the contract. The following list of examples of outreach efforts is not exclusive or exhaustive. Other outreach efforts may also be effective.

1. Identify appropriate subcontractor opportunities.
2. Send a written solicitation to certified DBE/WBEs licensed or reputed to be qualified to provide the identified work before proposals are due providing them with information about the requirements for the project and the identified items of work.
3. Follow up on initial solicitations to DBE/WBEs to determine interest.
4. Contact chambers of commerce or women's business organizations to provide information regarding opportunities and to obtain information regarding DBE/WBEs.

Certified DBE and WBE resource lists ACCEPTABLE for this project are as follows:

1. California Department of Transportation (Caltrans) and Department of General Services
2. City and County of San Francisco
3. County of Alameda
4. City of Oakland
5. And City's, County's, or other governmental agency listing provided that agency performs certifications and, can attest to the accuracy of the information contained within the listing.

- 19. BID OPENING.** City of Hayward will open all Bidders' Envelopes immediately following Submission of the bids, initially evaluate them for responsiveness, and determine the lowest responsible bidder.

- 20. PRELIMINARY SCHEDULE OF VALUES.** The Contractor shall furnish a preliminary schedule of values for each contract lump sum item of work per 10.1.2 of the General Conditions. The preliminary schedule of values shall be submitted to the Owner for approval no later than 10 days after the date of Notice to Proceed. The preliminary schedule of values shall be approved, in writing, by the Owner before any partial payment for the items of work will be made. The Contractor shall be responsible for the accuracy of the quantities and values used in the cost break-downs submitted for approval. Also refer to requirements of other division 0 and 1 sections including, but not limited to, section 01 2900 (Payment Procedures).

- 21. BID EVALUATION.** City of Hayward reserves the right to:

1. Reject any and all bids

2. Reject a nonresponsive bid
3. Waive any informalities or irregularities in bids received

More than one proposal from an individual, firm, partnership, corporation, or combination thereof under the same or different names will not be considered. If it appears that the same individual, firm, partnership, corporation or combination thereof is interested in more than one proposal for the work contemplated, all such proposals shall be rejected. If there is a reason for believing that collusion exists among the bidders, any or all proposals may be rejected. Proposals in which the prices obviously are unbalanced may be rejected. Being listed as a subcontractor does not constitute interest in a bid.

A bid may be rejected on the basis of a bidder, any officer of such bidder, or any employee of such bidder who has a proprietary interest in such bidder, having been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local project because of a violation of law or a safety regulation.

City of Hayward also reserves the right, in its discretion, to reject any or all Bids and to re-bid the Project. City of Hayward reserves the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, and to reject the Bid of any Bidder if City of Hayward believes that it would not be in the best interest of Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by City of Hayward.

- A. In evaluating Bids, City of Hayward will consider Bidders' qualifications, whether or not the Bids comply with the prescribed requirements, omit prices and other data, as may be requested in Section 00 41 13 (Proposal) or prior to the Notice of Award.
- B. City of Hayward may conduct reasonable investigations and reference checks of Bidder, proposed Subcontractors, suppliers and other persons and organizations as City of Hayward deems necessary to assist in the evaluation of any Bidders; ability qualifications, financial ability of proposed Subcontractors, suppliers, and to establish Bidder's responsibility, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to City of Hayward satisfaction within the prescribed time. Submission of a Bid constitutes Bidder's consent to the foregoing. City of Hayward shall have the right to consider information provided by sources other than Bidder. City of Hayward shall also have the right to communicate directly with Bidder's surety regarding Bidder's bonds. The reference information shall be submitted to the office of the Owner within two days from the date of the request. Failure to submit the required Contractor's reference information by the time specified will be grounds for finding the bid or proposal non-responsive. Other bidders need not submit information unless requested to do so by the City. When such request is made, the Contractor's reference information of such bidders shall be submitted within 2 days of the request.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between written words and figures will be resolved in favor of the written words.
- D. Quantities stated in the Bidding Documents are approximate only and are subject to correction upon final measurement of the Work, and are subject further to the rights reserved by the City of Hayward increase or diminish the amount of work under any classification as advantages to design or construction needs require.
- E. City of Hayward may determine whether a Bidder is qualified in its sole discretionary judgment.

22. AWARD.

The right is reserved to reject any and all proposals. The right is also reserved to waive any informalities or irregularities in bids received.

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. Such award, if made, will be made within 75 days after the opening of the proposals. This period of time specified above within which the award of contract may be made shall be subject to extension for such further period as may be agreed upon in writing between the City of Hayward and the bidder concerned.

All bids will be compared on the basis of the Engineer's Estimate of the quantities of the work to be done.

Following completion of all required City of Hayward procedures and receipt of all City of Hayward approvals, City of Hayward will issue Notice of Award to the successful Bidder.

23. BID PROTEST. All bid protests shall be governed by the following procedures:

Any bid protest of the proposed award of bid to the bidder deemed the lowest responsible bidder must be submitted in writing no later than 5:00 PM on the fifth (5th) business day following the date of the bid opening to the following address: City of Hayward, Office of the City Clerk, 777 B Street, Hayward, CA 94541. The following conditions will apply to all protests:

1. At time of filing the bid protest, a processing fee of \$500.00 will be charged.
2. The initial protest document must contain a complete statement of the basis for the protest.
3. The protest must state the facts and refer to the specific portion of the document or the specific statute that forms the basis for the protest.
4. The protest must include the name, address, and telephone number of the person representing the protesting party. If a fax number or email address is available, it should also be included.
5. The party filing the protest must have actually submitted a bid on the project or must be a legal representative of a party that has actually submitted a bid on the project. A subcontractor of a party filing a bid on this project may not submit a Bid Protest.
6. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders who appear to have a reasonable prospect of receiving or being denied an award depending upon the outcome of the protest.

The procedure and time limits set forth in this paragraph are mandatory and are the bidder's sole and exclusive remedy in the event of a bid protest. The Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a challenge of the award pursuant to the California Public Contracts Code, filing of a claim pursuant to the California Government Code, or filing of any other legal proceedings. A Bidder must not rely on a Bid Protest submitted by another Bidder, but must timely pursue its own protest.

The City will respond to any properly submitted protest within fifteen (15) calendar days. The City shall not be required to hold an administrative hearing to consider a timely protest, but may do so at the option of the Owner, or if otherwise legally required. At the time of the City Council's consideration of the award of the bid, the City Council shall also consider the merits of any timely protests and the Owner's recommendation thereon. The City Council may either accept the protest and award the bid to the next lowest responsible bidder, or reject the protest and award to the lowest responsible bidder. Nothing in this section shall be construed as a waiver of the City Council's right to reject all bids. The City's decision on the protest shall be final.

In the event that any bid fails to conform to the requirements of the bid documents, the City reserves the right to waive inconsequential deviations from bid requirements or other bid irregularities not affecting the time of performance, quality of performance or the amount of the bid, except where such waiver would give the low bidder an advantage or benefit not allowed to other bidders.

24. POST-NOTICE OF AWARD REQUIREMENTS. After Notice of Award, the successful Bidder must execute and submit the following documents as indicated below.

- A. Submit the following documents to City of Hayward by 4:00 PM of the 10th business day following Notice of Award. The bidder's security may be forfeited for failure to execute the contract within the time specified (Pub Cont Code §§ 10181, 10182, and 10183). Execution of Contract by City of Hayward depends upon approval of these documents:
- 1) Section 00 52 13 (Contract): To be executed by successful Bidder. Submit three originals, each bearing an original signature.
 - 2) Section 00 52 13 (Construction Performance Bond): To be executed by successful Bidder and surety, in the amount set forth in Section 00 52 13 (Construction Performance Bond). Submit one original.
 - 3) Section 00 52 13 (Construction Labor and Material Payment Bond): To be executed by successful Bidder and surety, in the amount set forth in Section 00 52 13 (Construction Labor and Material Payment Bond). Submit one original.
 - 4) Insurance certificates and endorsements required by Section 00 72 13 (General Conditions). Submit one original set.
 - 5) The Guaranty in the form set forth in Section 00 65 36 (Guaranty). Submit three originals, each bearing an original signature.
 - 6) Contractor's Reference Information, if requested.
 - 7) Community Workforce Agreement Exhibit D, Attachment A ("Agreement to be Bound"). Submit one original.
- B. City of Hayward shall have the right to communicate directly with Apparent Low Bidder's proposed performance bond surety, to confirm the performance bond. City of Hayward may elect to extend the time to receive performance and labor and material payment bonds.
- C. Successful Bidder's failure to submit the documents required herein, in a proper and timely manner, entitles City of Hayward to rescind its award, and to cause Bidder's Bid security to be forfeited as provided herein.

25. FAILURE TO EXECUTE AND DELIVER DOCUMENTS. If Bidder to whom contract is awarded shall, within the period described in paragraph 24 of this Section 00 21 13, fail or neglect to execute and deliver all required Contract Documents and file all required bonds, insurance certificates, and other documents, City of Hayward may, in its sole discretion, foreclose on Bidder's deposit surety bond, or deposit Bidder's cashier's check or certified check for collection, and retain the proceeds thereof as liquidated damages for Bidder's failure to enter into the Contract Documents. Bidder agrees that calculating the damages City of Hayward may suffer as a result of Bidder's failure to execute and deliver all required Contract Documents would be extremely difficult and impractical and that the amount of Bidder's required Bid security shall be the agreed and presumed amount of City of Hayward damages. In addition, upon such failure City of Hayward may determine the next Apparent Low Bidder and proceed accordingly.

26. MODIFICATION OF COMMENCEMENT OF WORK. City of Hayward expressly reserves the right to modify the date for the Commencement of Work under the Contract and to independently perform and complete work related to the Project.

27. WITHDRAWAL OF BIDS. Bidders may withdraw their Bids at any time prior to the Bid opening time fixed in this Section 00 21 13, only by written request for the withdrawal of Bid filed with the City of Hayward representative. Bidder or its duly authorized representative shall execute request to withdraw Bid. The submission of a Bid does not commit the City of Hayward to award a contract for the Project, to pay costs incurred in the preparation of a Bid, or to procure or contract for any goods or services.

28. PUBLIC RECORDS ACT REQUESTS.

- A. Pursuant to the California Public Records Act (Cal. Government Code section 6250 et. seq.) the City of Hayward will make available to the public, upon request, all correspondence and written questions submitted during the Bid period, all Bid submissions opened in accordance with the procedures of this Section 00 21 13, and all subsequent Bid evaluation information. All submissions not opened will remain sealed and eventually be returned to the submitter. Except as otherwise

required by law, City of Hayward will not disclose trade secrets or proprietary financial information submitted that has been designated confidential by Bidder. Bidder shall clearly label any information it considers to be confidential trade secret/proprietary information by indicating "Confidential: Trade Secret/Proprietary" on the document containing the information and specifically identifying the information sought to be protected.

- B. Upon a request for records regarding this Bid, City of Hayward shall notify Bidder involved within ten Days from receipt of the request of a specific date when the records will be made available to the requesting party for inspection. If the Bidder timely identifies any proprietary, trade secret, or confidential commercial or financial information that Bidder believes is not subject to public disclosure Bidder shall take all appropriate legal action to prevent the disclosure of such information including, but not limited to, seeking injunctive or declaratory relief. Bidder agrees to indemnify, save harmless and defend the City of Hayward from all claims, liability, damage, loss, costs and obligation, including court costs and counsel fees, on account of or arising out of Bidder's assertion that a record is confidential trade secret and/or proprietary.
- C. Information disclosed in the Bid documents and the attendant submissions are the property of City of Hayward unless Bidder makes specific reference to data that is considered proprietary. To the extent allowed by law, reasonable efforts will be made to prevent the disclosure of information except on a need-to-know basis during the evaluation process.

29. CONFORMED CONSTRUCTION DOCUMENTS. Following the Notice of Award, City of Hayward will prepare a conformed set of Contract Documents reflecting Addenda issued during bidding, which will, failing objection, constitute the approved set of Contract Documents. The Contractor shall be provided with PDF electronic files of these documents for their own verification and use. No hard copies will be provided – Contractor shall print at their own convenience.

-END OF SECTION-

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00 31 00 - GEOTECHNICAL DATA, EXISTING CONDITIONS AND HAZARDOUS MATERIAL SURVEYS

1. SUMMARY

This Section 00 31 00 sets forth the terms and conditions under which Bidder may review, study, use, or rely upon existing geotechnical data at or contiguous to the Site, hazardous materials surveys and existing conditions information concerning existing conditions at or contiguous to the Site, as required in Section 00 52 13 (Contract).

2. REPORTS AND INFORMATION

- A. Bidders may inspect geotechnical reports, hazardous materials surveys and other information regarding existing conditions listed below in paragraph B at www.ebidboard.com. These reports, documents and other information are not part of the Contract Documents. Nevertheless, by submitting a Bid, Bidder accepts full responsibility for reviewing, knowing and understanding the contents of all of these materials.
- B. City of Hayward and its consultants have prepared documents providing a general description of the Site. These documents consist of surveys made available for review and reference. The surveys are the following:
- Rockridge Geotechnical's Final Geotechnical Investigation dated 7/14/17
 - ERAS's Revised Soil Sampling Investigation dated 6/26/18
 - Soil Sampling Investigation (for PFAS) dated 12/3/18
 - EBA's Pre-construction Hazardous Materials Assessment date 5/31/19
 - EBA's Project Health and Safety Plan dated 8/20/19

3. USE OF INFORMATION ON EXISTING CONDITIONS

- A. Above Ground Existing Conditions. Under no circumstances shall City of Hayward and its consultants be deemed to make a warranty or representation of existing above ground conditions, as-built conditions, or other above ground actual conditions verifiable by reasonable independent investigation. These conditions are verifiable by Bidder by the performance of its own independent investigation that Bidder must perform prior to bidding and Bidder must not rely on the information supplied by City of Hayward and its consultants regarding existing conditions. Bidder represents and agrees that in submitting its Bid, it is not relying on any information regarding existing conditions supplied by City of Hayward and its consultants.
- B. Underground Conditions. Information supplied regarding existing Underground Conditions at or contiguous to the Site is based on information furnished to City of Hayward by others. Except as expressly set forth in this Section 00 31 00 City of Hayward does not assume responsibility for the accuracy, completeness or thoroughness of this information and Bidder is solely responsible for any interpretation or conclusion drawn from this information. Except as expressly set forth in this Section 00 31 00, City of Hayward will be responsible only for the general accuracy of information regarding Underground Conditions. This express assumption of responsibility applies only if Bidder has conducted the independent investigation required of it and discrepancies were not apparent.

4. LIMITED RELIANCE PERMITTED ON CERTAIN INFORMATION

- A. Geotechnical Data. Except as expressly set forth in this Section 00 31 00, City of Hayward and its consultants do not warrant, and makes no representation regarding, the accuracy or thoroughness of any Geotechnical data. Bidder represents and agrees that in submitting its Bid, it is not relying on any Geotechnical data supplied by City of Hayward and its consultants, except as specifically set forth herein.

- B. Bidder may rely upon the general accuracy of the “technical data” contained in the geotechnical reports and drawings identified above, but only insofar as it relates to subsurface conditions, provided Bidder has conducted the independent investigation required of it and discrepancies were not apparent. The term “technical data” in the referenced reports and drawings shall be limited as follows:
1. The term “technical data” shall include actual reported depths, reported quantities, reported soil types, reported soil conditions, and reported material, equipment, or structures that were encountered during subsurface exploration.
 2. The term “technical data” does not include, and Bidder may not rely upon, any other data, interpretations, opinions or information shown or indicated in such drawings or reports that otherwise relate to subsurface conditions or described structures.
 3. The term “technical data” shall not include the location of underground utilities or other improvements.
 4. Bidder may not rely on the completeness of reports and drawings for the purposes of bidding or construction. Bidder may rely upon the general accuracy of the “technical data” contained in such reports or drawings.
 5. Bidder is solely responsible for any interpretation or conclusion drawn from any “technical data” or any other data, interpretations, opinions, or information contained in supplied Geotechnical data.

-END OF SECTION-

00 31 13 – PRELIMINARY CONSTRUCTION SCHEDULE

1. SUMMARY

The Preliminary Construction Schedule indicates planned start and substantial completion dates for significant activities during the construction period. Substantial completion of an activity is considered to be attained when the work of subsequent activities can proceed or the activity is complete and able to be utilized by the Owner for its intended use.

2. PHASING / MILESTONE CONSTRUCTION SCHEDULE DATES

A. The designated construction start and completion dates are as follows;

- Hayward Fire Station #6 & Fire Training Center
 - Project Start date: **July 27, 2020** (tentative NTP date).
 - Total Project Duration: 480 Working days
 - Substantial Completion: 480 Working days from NTP
(Tentative date – May 27, 2022)
 - Final Completion date: 20 Working days from Substantial Completion
Date, (Tentative date – June 24, 2022)

3. PRECONSTRUCTION CONFERENCE

A. Prior to the issuance of the Notice to Proceed, a pre-construction conference will be held at the Offices of the City Of Hayward for the purpose of discussing with the Contractor the scope of the work, contract Drawings and Project Manual, and the Contractor's schedule. Unless otherwise approved by the Owner, the Contractor's proposed superintendent shall be present and at least one representative from each listed subcontractor. The time and date for the pre-construction conference will be scheduled by the Owner.

4. NOTICE TO PROCEED

A. A Notice to Proceed (section 00 55 00) will be issued on a Friday, with the first chargeable working day on the following Monday. The Contractor shall begin work within 10 calendar days after receiving the Notice to Proceed.

5. TIME OF COMPLETION

- A. The contractor is required to achieve Substantial Completion for the work by the dates specified in Section 2.A above and shall achieve Final Completion shall be completed by the dates specified in Section 2.A above.
- B. Substantial Completion of 480 WORKING DAY and Final Completion of 20 WORKING DAY periods, collectively, shall be referred to as the Contract Time.
- C. Failure to complete the entire Work within the Contract Time shall result in Contractor responsibility for Substantial Completion liquidated damages and/or Final Completion liquidated damages.

6. LIQUIDATED DAMAGES

A. Time is of the essence with respect to this Contract and completion of the Work. The Parties acknowledge and agree that the Owner will suffer damages if the Contractor does not complete the Work within the Contract Time. Because it is impractical and infeasible to determine the actual amount of damages the Owner will incur, in accordance with Government Code Section 53069.85, the Contractor shall pay to the Owner liquidated damages at the rate specified in this Section for each and every calendar day (or portion thereof, if not a full day) that any of the Work remains uncompleted after the Contract Time has expired ("Liquidated Damages"). Liquidated Damages

shall constitute compensation to the City for Contractor's delay or delay caused by its subcontractors, suppliers, et cetera, in completion of the Work and shall not be construed as a penalty or forfeiture of any other right or remedy under this Contract or applicable law. In the event Contractor fails to pay any such Liquidated Damages, the City may deduct such amount(s) from any payments due (or that may become due) to Contractor pursuant to this Contract and/or may be invoiced to the Contractor.

- B. Substantial Completion Liquidated Damages: Failure on the part of the Contractor to achieve Substantial Completion of each phase of the work and or the entire project by the date and within the time periods specified in Section 2.A above, including any approved extensions thereof, shall subject the Contractor to Liquidated Damages as provided in Item 6.C below.
- C. The amount of Substantial Completion Liquidated Damages assessed under Section 6.A above will be **\$5,000.00 (Five Thousand Dollars)** per Calendar Day.
- D. Final Completion Liquidated Damages: For the time period following Substantial Completion and up to the date of Final Completion, the Contractor shall pay to the City of Hayward the sum of **\$5,000** per Calendar day that expires between achievement of Substantial Completion and achievement of Final Completion.
- E. Performance Liquidated Damages: In addition to Substantial Completion liquidated damages and/or Final Completion liquidated damages provided above, the Contractor shall complete the work listed in the following items within the specified time; and upon any failure as specified, pay the liquidated damages in the specified amount as follows:

List Specific performance LD:

Ex: 1. Sidewalk, Driveway, Curb & Gutter, Curb Ramps Construction: Construction of the new sidewalk, driveway, curb and gutter, and wheelchair ramps shall all be done and completed at each business or resident (location) before the expiration of **5 calendar days** from the day existing structures are demolished. Placement of deep-lift asphalt concrete repair and general clean-up at each location shall all be done and completed before the expiration of **7 calendar days** from the day existing structures are demolished at each location.

For removal and construction of the new concrete sidewalk, driveway, curb ramps, and curb and gutter, under no circumstance shall a location be opened for more than **5 calendar days** without completing the removal of forms, pouring concrete, general clean-up and all other work involved in constructing the new sidewalk, driveway, curb ramps, and curb and gutter, complete in place. The Contractor shall pay to the City of Hayward the sum of **\$1,000 per day**, for each and every calendar day delay in the removal and construction of the new concrete sidewalk, driveway, wheelchair ramps, and curb and gutter at each location in excess of the 5 calendar days. The City Inspector may grant additional days if there are reasonable delays due to a need by an arborist to review the pruning of tree roots. However, no more than 2 additional working days will be granted to allow an arborist to review root pruning work.

For the placement of deep-lift asphalt concrete repair work and general clean-up, the Contractor shall pay to the City of Hayward the sum of **\$1,000 per day**, for each and every calendar day delay at each location in excess of the **7 calendar days**.

7. DEFINITION OF SUBSTANTIAL COMPLETION

- A. Substantial Completion refers to the stage in the progress of the Project when the Project is sufficiently complete, in accordance with the construction Contract Documents, so that the Owner may use or occupy the Project for the intended purpose. Excepted from the foregoing are items that do not affect the use or beneficial occupancy of the Project, including but not limited to, clearly inconsequential punch list work, clearly inconsequential corrections to submittals or other clearly minor items limited to required documents or submittals following completion of construction. Contractor shall provide Owner with a written plan and assurance to complete all such inconsequential or minor work.

The Owner, in its sole discretion, shall determine when the Project has reached Substantial Completion. Under no circumstances, however, will Owner determine that the Project has reached Substantial Completion if the entire Project is not ready for beneficial occupancy, or work remaining includes inspections or approvals required for use of any equipment or systems, or if work remaining includes required training or operation and maintenance manuals necessary for use and operation of any part of the Project. The Owner is not obligated to occupy or use any portion of the Project prior to determining that the Project is substantially complete.

8. DEFINITION OF FINAL COMPLETION

- A. Final Completion means completion of all outstanding contract items, including but not limited to, remaining punch list work or other items remaining to be completed after Substantial Completion.

Final Completion requires Contractor to complete all work necessary for Owner to proceed with formal acceptance by the City to close out the Contract.

-END OF SECTION-

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00 31 43 – PERMITS & DEFERRED SUBMITTALS

1.1 PERMIT INFORMATION

- A. The Contractor shall obtain all permits required by the City as listed below. The City of Hayward will waive all fees for those permits issued by the City.

The Contractor shall obtain the following City permits required for this project, but is not limited to:

Building – City Building Division
Electrical – City Building Division
Plumbing – City Building Division
Mechanical – City Building Division
Underground Fire Line – Public Works/Fire Department
Aboveground Storage Tank – Fire Department

- B. The Contractor and sub-contractors shall obtain and pay all fees for a City of Hayward Business License prior to starting work and shall maintain same at all times during the life of the contract.
- C. Contractor shall be responsible to obtain and pay for all other permits as required in the Contract Documents and to coordinate all related inspections and sign-offs.
- D. The Contractor shall coordinate inspections from various City departments and allow in his schedule the time necessary for scheduling of the inspections and the actual inspection time. The Department of Public Works – Engineering & Transportation has no authority over the City Building Division or Fire Department Inspectors and will not provide coordination between these separate City entities. No additional working days or compensation will be allowed for due to inspection scheduling and the actual inspection.
- E. The inspection of the work or materials shall not relieve the Contractor of any of the Contractor's obligations to fulfill the contract as prescribed. Work and materials not meeting the requirements shall be made good and unsuitable work or materials may be rejected, notwithstanding that the work or materials have been previously inspected by the Owner or that payment therefor has been included in a progress estimate.
- F. Contractor must obtain any and all permits required by other agencies such as Cal/OSHA. Full compensation for applying for and acquiring these permits, including payment of any fees, shall be considered as included in the various contract items of work and no separate payment will be made therefor.

1.2 DEFERRED SUBMITTALS

- A. The Contractor shall provide deferred submittals as indicated on the Contract Documents.

-END OF SECTION-

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00 41 13 – Proposal

P-1

PROPOSAL TO THE CITY COUNCIL OF THE CITY OF HAYWARD

for

Fire Station #6 & Fire Training Center

Project Nos. 07481 & 07482

Name of Bidder: _____

Business Address: _____

City: _____ Zip Code: _____

Phone No.: _(_____)_____ Fax No.: _(_____)_____

* * * * *

LOCATION

The work to be done and referenced to herein is in the City of Hayward or the adjacent vicinity, State of California, and extends over property owned or controlled by the City of Hayward, and is to be constructed in accordance with the Contract Documents (including Project Manual and Drawing File No E-2157).

TO THE CITY COUNCIL, CITY OF HAYWARD

The undersigned, as bidder, does hereby declare that the only persons or parties interested in this proposal are the undersigned and this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the Drawings therein referred to; and he proposes and agrees, if this proposal is accepted, that he will contract with the City of Hayward, in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus, and other means of construction and to do all the work and furnish all the materials specified in the contract, in the manner and the time therein prescribed, and according to the requirements of the Owner as therein set forth, and that he will take in full payment therefor the amounts shown on the following unit price schedule, to wit:



CITY OF HAYWARD
PROJECT TITLE: Fire Station #6 and Fire Training Center
PROJECT NOS. 07481 & 07482

ITEM NO.	ITEM DESCRIPTION	EST. QUANTITY	UNIT	UNIT PRICE (In Words)	UNIT PRICE (In Figures)	TOTAL (In Figures)
1	Fire Station #6 and Fire Training Center	1	LS			
TOTAL BID						

NOTE: Referenced sections on the Bid Sheet are intended to provide initial linkage to the work descriptions and the Contract Documents. Not all the relevant sections have been specified above and the bidder is responsible for reading the entire contract documents. The estimate of construction quantities set forth herein is approximate only, being given as a basis for the comparison of bids. The City does not expressly or by implication agree that the actual amount of work will correspond therewith, and reserves the right to change the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or expedient by the Owner in accordance with the Contract Documents. All bids will be compared on the basis of the Engineer's Estimate of the quantities of the work to be done. The undersigned declares, by their signature to this Proposal, that the bidder has checked carefully all the above figures and understands that the City shall not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

BIDDER

DATE

DIRECTIONS TO BIDDERS:

The following are directions to bidders by the City of Hayward and this proposal is made with reference to them:

Bids are required for the entire work. The amount of the bid for comparison purposes will be the total of all items. The total of unit basis items will be determined by extension of the item price bid on the basis of the estimated quantity set forth for the item.

The bidder shall set forth for each item of work, in clearly legible figures, an item price and a total for the item in the respective spaces provided for this purpose. In the case of unit basis items, the amount set forth under the "Total" column shall be the extension of the item price bid on the basis of the estimated quantity for the item.

In case of discrepancy between an item price in words and the price in figures, the price in words shall prevail. In case of discrepancy between the item price and the total set forth for a unit basis item, the item price shall prevail, provided; however, if the amount set forth as an item price is ambiguous, illegible or uncertain for any cause, or is omitted, or in the case of unit basis items, is the same amount as the entry in the "Total" column, then the amount set forth in the "Total" column for the item shall prevail in accordance with the following:

- (1) As to lump sum items, the amount set forth in the "Total" column shall be the item price.
- (2) As to unit basis items, the amount set forth in the "Total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the item price.

All questions concerning bids are to go to the City Project Manager designated on the cover of the Project Manual, and any changes to the Contract Documents shall be made by addendum.

The bidder's attention is directed to Section 00 21 13, "Instructions to Bidders," of this Project Manual regarding submittal of proposal on City furnished forms.

If this proposal shall be accepted and the undersigned shall fail to contract as aforesaid and to give the two bonds in the sums to be determined as aforesaid, with surety satisfactory to the City of Hayward, within ten (10) days, not including Sundays and legal holidays, after the bidder has received notice from the City of Hayward that the contract has been awarded, the City of Hayward may, at its option, determine that the bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void and the forfeiture of such security accompanying this proposal shall operate and the same shall be the property of the City of Hayward.

INSTRUCTIONS FOR LISTING SUBCONTRACTORS:

In conformance with Instructions to Bidders, Paragraph 8, "Required Subcontractors List," the bidder shall list the name, the location of the place of business, the California Contractor's license number, and the public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render service to the prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Drawings and Project Manual, in an amount in excess of one-half of 1 percent of the prime Contractor's total bid, or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater. The bid shall also specify the portion of the work that will be done by each subcontractor listed pursuant to this paragraph. The bidder shall list only one subcontractor for each portion as is defined by the prime Contractor in his or her bid. The information shall be reported on the "List of All Subcontractors and Suppliers" form on proposal pages P-5 and P-6.

An inadvertent error in listing the California contractor license number or public works contractor registration number provided pursuant to the above paragraph shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.

Any information requested by the City concerning any subcontractor who the prime contractor is required to list under this subdivision, other than the subcontractor's name, location of business, the California contractor license number, and the public works contractor registration number, may be submitted by the prime contractor up to 24 hours after the deadline established by the City for receipt of bids by prime contractors.

Bidders are cautioned that nonsubmittal of required information may constitute grounds for rejection of the bid. It is not required to list suppliers to the forms on pages P-5 and P-6 unless the suppliers are being listed for DBEs or WBEs purposes (See DBE and WBE information below). The DBE/WBE suppliers' participation percentage shall be calculated per instructions shown on pages P-5 and P-6.

The City of Hayward requests that any bidder who utilizes Disadvantaged Business Enterprise (DBE) and Women Business Enterprise (WBE) subcontractors also provide the DBE/WBE information in the same form on proposal pages P-5 and P-6. The requested information includes DBE/WBE amounts, the DBE/WBE ethnicity, and the resource list from which the firm is certified. Acceptable DBE/WBE resource lists are noted in Section 00 21 13, "Instructions to Bidders," of this Project Manual.

LIST OF ALL SUBCONTRACTORS AND SUPPLIERS PAGE 1 of 2
 (INCLUDING BIDDER'S DBE AND WBE VOLUNTARY PARTICIPATION INFORMATION)

CITY OF HAYWARD

PROJECT TITLE: Fire Station #6 & Fire Training Center

BID OPENING: May 19, 2020

BIDDER'S NAME: _____		BIDDER'S DIR REGISTRATION NUMBER: _____			
BIDDER'S ADDRESS: _____					
BIDDER'S DBE/WBE STATUS: (INDICATE YES OR NO)		DBE: _____	WBE: _____		
PERSON COMPLETING THIS FORM			PHONE NO: () _____		
SUBCONTRACTOR/SUPPLIER (BIDDER MUST COMPLETE BOTH PAGES P-5 & P-6)	DESCRIPTION OF PORTION OF WORK SUBCONTRACTED OR SUPPLIED	SUPPLY OR SUBCONTRACT AMOUNT	DBE ¹ DOLLAR AMOUNT CLAIMED	WBE ¹ DOLLAR AMOUNT CLAIMED	DBE/WBE ² ETHNICITY (E) RESOURCE LIST (RL)
NAME: _____					E
CITY: _____					RL
TEL. # _____ LIC. # _____					
DIR Registration Number					Supplier - Yes No
NAME: _____					E
CITY: _____	RL				
TEL. # _____ LIC. # _____					
DIR Registration Number	Supplier - Yes No				
NAME: _____					E
CITY: _____					RL
TEL. # _____ LIC. # _____					
DIR Registration Number					Supplier - Yes No
NAME: _____					E
CITY: _____	RL				
TEL. # _____ LIC. # _____					
DIR Registration Number	Supplier - Yes No				
NAME: _____					E
CITY: _____					RL
TEL. # _____ LIC. # _____					
DIR Registration Number					Supplier - Yes No

¹ SUPPLIERS WHO ARE NOT MANUFACTURERS WILL COUNT 60 PERCENT OF THEIR VALUE FURNISHED.
 TRUCK BROKERS WHO DO NOT HAVE A SIGNED CONTRACT WITH DBE AND WBE TRUCKERS WILL COUNT 60 PERCENT OF THE VALUE FURNISHED.

² THE RESOURCE LISTS ACCEPTABLE FOR THIS PROJECT ARE NOTED IN SECTION 00 21 13, "INSTRUCTIONS TO BIDDERS."

P-7

The undersigned encloses herewith bidder's bond, certified check, or cashier's check No. _____ of the _____ Bank, for \$ _____, which is not less than ten percent (10%) of this bid, payable to the City of Hayward, which is given as a guarantee that the undersigned will enter into the contract if awarded the work.

The undersigned hereby certifies that this bid is genuine and not a sham or collusive or made in the interest or in behalf of any person not herein named and that the undersigned has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm or corporation to refrain from bidding, and that the undersigned has not in any manner sought by collusion, to secure for itself an advantage of any other bid.

Nature of firm (corporation, partnership, individual, etc.) and names of individual members of the firm, or names and titles of officers of the corporation.

If a corporation, organized under the laws of the State of _____.

Licensed in California in accordance with an act providing for the registration of Contractors, License No. _____, Class _____.

ADDENDA

This Proposal is submitted with respect to the changes to the Drawings and Project Manual included in addendum number/s.

(Fill in addendum number/s if addenda have been received.)

Warning

If an addendum or addenda have been issued by the City and not noted above as being received by the bidder, this Proposal may be rejected.

Signature: _____
and
Address: _____

Date: _____

BIDDER'S BOND TO ACCOMPANY PROPOSAL

Know all men by these presents:

That we, _____, as principal and, _____ as corporate surety, duly authorized to issue bonds in the State of California, are held firmly bound unto the CITY OF HAYWARD in the sum of _____ dollars (\$ _____), to be paid to the said City or its certain attorney, its successors, and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors or assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if the certain proposal of the above-bounden _____ to construct **Fire Station #6 & Fire Training Center** dated _____, is accepted by the CITY OF HAYWARD, and if the above-bounden _____, his heirs, executors, administrators, successors, and assigns shall duly enter into and execute a contract for such construction, and shall execute and deliver the two bonds described along with the executed contract within ten (10) days, not including Sundays and legal holidays, from the date of notification that contract was awarded to the above-bounden _____ by and from the said City of Hayward, that said contract is ready for execution, then this obligation shall become null and void; otherwise, it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, we hereunto set our hands and seals this _____ day of _____, 2020.

**AFFIRMATION OF NON-INVOLVEMENT IN
DEVELOPMENT OR PRODUCTION OF NUCLEAR WEAPONS**

The respondent to a City of Hayward Request for Proposal or recipient of a City of Hayward Purchase Order/Contract hereby certifies:

- 1) That it understands that City of Hayward Ordinance No. 87-024 C.S. prohibits award of contract to, or purchase of goods or services from, "any person, which is knowingly or intentionally engaged in the development or production of nuclear weapons."
- 2) That it understands the ordinance defines "Nuclear Weapon" as "any device the intended explosion of which results from the energy released by fission or fusion reactions involving atomic nuclei."
- 3) That it understands the ordinance defines "Person" as "any person, private corporation, institution or other entity..."

As the owner or company official of the firm identified below, I affirm that this company is not knowingly or intentionally engaged in such development or production.

(Print/Type Company Name)

(Print/Type Official Name & Title)

(Company Address)

(Signature of Company Official)

(City/State/Zip Code)

(Date)

IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code sections 2202-2208)

Pursuant to the Iran Contract Act of 2010 (Public Contract Code 2200-2208), Vendors/Bidders are ineligible to bid on or submit a proposal for any contract with a public entity for goods or services of one million dollars (\$1,000,000) or more if the Vendor/Bidder engages in investment activities in Iran.

For bids \$1,000,000 or more, bidders must certify that it is not on the list of ineligible vendors prohibited from doing business with the State of California and shall complete the Iran Contract Act Certification attached and submit with their proposal at the time of bid. Failure to do so may deem your bid non-responsive.

IRAN CONTRACTING ACT CERTIFICATION
(Public Contract Code sections 2202-2208)

MUST BE SUBMITTED WITH BID PROPOSAL IF BID AMOUNT IS \$1,000,000 OR MORE

Prior to bidding on, submitting a proposal, or executing a contract or renewal for a public entity contract for goods or services of \$1,000,000 or more, a vendor must either: a) certify it is **not** on the current list of persons engaged in investment activities in Iran created by the California Department of General Services (“DGS”) pursuant to Public Contract Code section 2203(b) and is not a financial institution extending \$20,000,000 or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS; or b) demonstrate it has been exempted from the certification requirement for that solicitation or contract pursuant to Public Contract Code section 2203(c) or (d).

To comply with this requirement, please insert your vendor or financial institution name and Federal ID Number (if available) and complete **one** of the options below. Please note: California law establishes penalties for providing false certifications, including civil penalties equal to the greater of \$250,000 or twice the amount of the contract for which the false certification was made, contract termination, and three-year ineligibility to bid on contracts. (Pub. Cont. Code § 2205.)

OPTION#1 - CERTIFICATION

I, the official named below, certify I am duly authorized to execute this certification on behalf of the vendor/financial institution identified below, and the vendor/financial institution identified below is **not** on the current list of persons engaged in investment activities in Iran created by DGS and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person/vendor, for 45 days or more, if that other person/vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

<i>Vendor Name/Financial Institution (Printed)</i>	<i>Federal ID Number (or n/a)</i>
<i>By (Authorized Signature)</i>	
<i>Printed Name and Title of Person Signing</i>	<i>Date Executed</i>

OPTION #2 – EXEMPTION

Pursuant to Public Contract Code sections 2203(c) and (d), a public entity may permit a vendor/financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a proposal for, or enters into or renews, a contract for goods and services.

If you have obtained an exemption from the certification requirement under the Iran Contracting Act, please fill out the information below, and attach documentation demonstrating the exemption approval.

<i>Vendor Name/Financial Institution (Printed)</i>	<i>Federal ID Number (or n/a)</i>
<i>By (Authorized Signature)</i>	
<i>Printed Name and Title of Person Signing</i>	<i>Date Executed</i>

-END OF SECTION-

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00 43 93 - BID SUBMITTAL CHECKLIST

1.1 BID INFORMATION

- A. Project Name: Hayward Fire Station #6 & Fire Training Center
- B. Project Location: 1401 W Winton Avenue, Hayward, CA 94545
- C. Owner: City of Hayward
- D. Architect: RossDrulisCusenbery Architecture
- E. Construction Manager: Kitchell CEM

1.2 BIDDER'S CHECKLIST

- A. In an effort to assist the Bidder in properly completing all documentation required, the following checklist is provided for the Bidder's convenience. The Bidder is solely responsible for verifying compliance with bid submittal requirements.

- Included ALL Proposal Forms (P-1 through P-11) as required by the Instructions to Bidders
- Indicated on the Proposal the Addenda received (P-7).
- Included the "Bidder Registration and Safety Experience" Form (section 00 45 11).
- Included the "Work To Be Performed by Bidder" Form (section 00 45 16).
- Included the "Bidder Registration and Safety Experience Form" (section 00 45 11).
- Included the "Non-collusion Declaration" (section 00 45 19).
- Included the "Bidder Certifications" (section 00 45 30).
- Verified that the Bidder can provide Certificates of Insurance in the amounts indicated.
- Attached to the Bid Form: Bid Bond OR a certified check for the amount required.
- Bid envelope shows name and address of the Bidder.
- Bid envelope shows the Bidder's Contractor's License Number.
- Bid envelope shows name of Project being bid.
- Bid envelope shows time and day of Bid Opening.

-END OF SECTION-

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00 45 11 - BIDDER REGISTRATION AND SAFETY EXPERIENCE FORM

INSTRUCTIONS

In order to register to undertake work for the City of Hayward Bidder must provide the following:

- 1) Fill out this registration form completely; do not leave blanks.
- 2) Provide insurance information below complying with the insurance requirements in paragraph 13 of Section 00 72 13 (General Conditions).

INDEPENDENT CONTRACTOR REGISTRATION

Contractor's License #: _____

Date: _____ Fed I.D. # _____

Full Corporate Name of Company:

Street Address:

Mailing Address:

Phone: _____ Fax: _____

Name of Principal Contact:

Type of Business:

_____ Sole Proprietor _____ Partnership

_____ Non-Profit 501 C3 _____ Corporation

_____ Other (please explain _____)

INSURANCE

Workers' Compensation:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

General Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Automotive Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limit \$: _____

A.M. Best Rating: _____

All-Risk Course of Construction:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limit \$: _____

A.M. Best Rating: _____

Professional Liability (if applicable):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limit \$: _____

A.M. Best Rating: _____

Environmental Impairment Liability (if applicable):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limit \$: _____

A.M. Best Rating: _____

SAFETY EXPERIENCE

The following statements as to safety experience of Bidder are submitted with Bid, as part thereof, and Bidder guarantees the truthfulness and accuracy of the information.

- 1. List Bidder's Interstate Experience Modification Rate for the last three years.

2019: _____
2018: _____
2017: _____

- 2. Use Bidder's last year's Cal/OSHA 200 log to fill in the following:

- a. Number of lost workday cases _____
- b. Number of medical treatment cases _____
- c. Number of fatalities _____

- 3. Employee hours worked last year _____

- 4. State the name of Bidder's safety engineer/manager or Site Safety Officer:

Attach a resume or outline of this individual's safety and health qualifications and experience.

BIDDER CERTIFIES, UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA, THAT THE FOREGOING INFORMATION IS CURRENT AND ACCURATE AND AUTHORIZES THE CITY OF HAYWARD AND ITS AGENTS AND REPRESENTATIVES TO OBTAIN A CREDIT REPORT AND/OR VERIFY ANY OF THE ABOVE INFORMATION.

SIGNATURE

DATE

-END OF SECTION-

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00 45 30 BIDDER CERTIFICATIONS

TO BE EXECUTED BY ALL BIDDERS AND SUBMITTED WITH BID

CERTIFICATE OF NON-DISCRIMINATION

On behalf of the bidder making this Bid, the undersigned certifies that there will be no discrimination in employment with regard to race, color, religion, sex, sexual orientation, disability or national origin; that all federal, state, and local directives and executive orders regarding non-discrimination in employment will be complied with; and that the principle of equal opportunity in employment will be demonstrated positively and aggressively.

BIDDER'S SIGNATURE

STATEMENT OF CONVICTIONS

"I hereby swear, under penalty of perjury, that no more than one final, un-appealable finding of contempt of court by a Federal Court has been issued against me within the past two years because of failure to comply with an order of a Federal Court to comply with an order of the National Labor Relations Board."

BIDDER'S SIGNATURE

PREVIOUS DISQUALIFICATIONS

"I hereby swear, under penalty of perjury, that the below indicated bidder, any officer of such bidder, or any employee of such bidder who has a proprietary interest in such bidder, has never been disqualified, removed or otherwise prevented from bidding on, or completing a Federal, State, or local government project because of a violation of law or a safety regulation except as indicated on the separate sheet attached hereto entitled "Previous Disqualifications." If such exceptions are attached, please explain the circumstances.

BIDDER'S SIGNATURE

CERTIFICATION OF WORKER'S COMPENSATION INSURANCE

By my signature hereunder, as CONTRACTOR, I certify that I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's 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 the work of this Contract.

BIDDER'S SIGNATURE

CERTIFICATION OF PREVAILING WAGE RATES AND RECORDS

By my signature hereunder, as CONTRACTOR, I certify that I am aware of the provisions of Section 1773 of the Labor Code which requires the payment of prevailing wage on public projects. Also, that the CONTRACTOR and any subcontractors under the Contractor shall comply with Section 1776, regarding wage records, and with Section 1777.5, regarding the employment and training of apprentices, of the Labor Code. It is the CONTRACTOR'S responsibility to ensure compliance by any and all subcontractors performing work under this Contract.

The information below applies to the above five sections.

BIDDER'S SIGNATURE

Name of Bidder

Signed by (printed)

Title

Dated

-END OF SECTION-

00 49 00 - EXECUTION OF CONTRACT

1.0 EXECUTION OF AGREEMENT AND BONDS

The successful bidder must execute and submit the following documents. Failure to properly and timely submit these documents entitles Owner to reject the bid as non-responsive.

a. Submit the following documents to the City of Hayward by 5 o'clock p.m. of the tenth (10th) calendar day following NOTICE OF AWARD. Award of contract depends upon approval of these documents:

i. Section 00 52 13, **CONTRACT**: After Notice of Award, the Owner will mail to the Contractor three (3) copies of the Contract, bond and insurance forms. Within ten (10) calendar days after receiving the forms, the Contractor must execute and return them to:

City of Hayward, Hayward Fire Station #6 & Fire Training Center
c/o Dave Hung, Project Manager
City of Hayward, 777 B Street, 2nd Floor, Hayward, CA 94541

ii. Section 00 52 13, **CONSTRUCTION PERFORMANCE BOND**: To be executed by successful Bidder and surety in the sum not less than one hundred percent (110%) of amount of contract. Performance bond to guarantee the faithful performance of the Contract. This bond must be equal to at least 110 percent (110%) of the total bid. This obligation may be reduced to an amount equal to at least ten percent (10%) of the contract price upon final acceptance, for a period of one year from the date of acceptance of work.

iii. Section 00 52 13, **CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND**: To be executed by successful Bidder and surety in the sum not less than one hundred percent (110%) of amount of contract. Payment bond to secure the claim payments of laborers, workers, mechanics, or materialmen providing goods, labor, or services under the Contract. This bond must be equal to at least 110 percent (110%) of the total bid.

iv. Sureties on each of said bonds in Sections 00 52 13 shall (i) be issued by a surety that is authorized and admitted to transact business in the State of California in accordance with Code of Civil Procedure Section 995.120; (ii) include the notarized signatures of the Contractor and the surety. Prior to submitting the Bonds to the City, the Contractor must attach to each of the Bonds: (i) a print-out of information from the website of the Department of Insurance confirming that the surety is an admitted surety insurer, printed not more than ten days prior to submitting the Bonds to the City; or (ii) certification by the Clerk of the County that the surety is an admitted surety insurer, obtained from the Clerk of the County not more than ten days prior to submitting the Bonds to the City. No change in the Work or the Project, extension of time for performance of the Work or other action permitted pursuant to this Contract shall be deemed or construed to, in any manner or respect, release the Contractor or any surety that has issued one or both of the Bonds from their respective obligations pursuant to the Bonds, and each such surety shall be deemed to have waived notice of such changes, extensions and other actions; and, further, in the event of default by the Contractor, the surety shall promptly investigate such default and promptly, and in no event longer than 45 days from the City's notice of the default, advise City of Surety's unequivocal election whether it will complete the Project with a new contractor (not the

Contractor unless City in its sole discretion so consents) with new Bonds, or exercise other rights or remedies permitted by law of the Bonds.

Bond forms are included in the Contract.

iv. Insurance Certificates and Endorsements required by Section 00 72 13,
INSURANCE REQUIREMENTS.

- b. All three (3) copies of the Contract and bonds must be signed by the Contractor. If the Contractor is a corporation, the contract and bonds must be signed by the corporate officers authorized to do so and the corporate seal must be affixed to each document.
- c. Corporate sureties on bonds accompanying Bids must be executed by a surety company legally authorized to do business in the State of California, and its corporate seal shall be affixed to each document, together with notary acknowledgment of the execution of the bonds by the surety's representative. If the contract price is more than \$100,000.00, the surety company must furnish the Owner a certified copy of the authorization of its agent to execute the bonds. If the bonds are executed outside the State of California, all copies must be countersigned by a California representative of the surety. Sureties must be satisfactory to the Owner. Contractor shall provide a certificate from the County Clerk confirming that the corporate sureties' insurers are admitted surety insurers in the State of California. Upon request of the Owner, Contractor shall provide (1) a certified copy of the unrevoked appointment, power of attorney, bylaws, or other instrument entitling or authorizing the person who executed the bond to do so; (2) a certified copy of the certificate of authority of the surety insurer issued by the California State Insurance Commissioner; and/or (3) copies of the surety insurer's most recent annual statement and quarterly statement filed with the California Department of Insurance.
- d. After the contract is executed on behalf of the Owner, one copy will be returned to the Contractor for its files.
- e. Upon receipt of the Notice of Award, the contractor and each of its subcontractors who employs workers in any apprenticeable craft or trade shall apply to the joint apprenticeship committee administering the apprenticeship standards of the craft or trade for a certificate approving the contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices, in accordance with section 1777.5 of the California Labor Code.
- f. Owner shall have the right to directly contact the performance bond surety proposed by the successful bidder to confirm the performance bond.

2.0 **COMMUNITY WORKFORCE AGREEMENT**

When the Engineer's estimated cost of construction is greater than \$1,000,000, the contract is subject to the Community Workforce Agreement approved by the Hayward City Council on April 14, 2015. The successful bidder and all subcontractors, at any tier, will be required to sign an Agreement to be Bound which can be found in Exhibit D in the Project Manual as a condition precedent to entering into any contract for this project.

The Agreement is to promote efficiency of construction operations performed by the City of Hayward and to provide for the peaceful settlement of labor disputes and grievances without strikes or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the projects covered by this Contract, while helping to increase training and employment opportunities for graduates of the Hayward Unified School District ("HUSD") and Hayward residents in the construction

trades through local hire, apprenticeship and pre-apprentice programs.

3.0 **RELEASE OF BONDS**

- a. Faithful performance bond shall remain in effect for 365 days after the Notice of Completion is filed by the Owner. The bond will remain in effect as a guarantee to repair or replace any defective workmanship or materials for the one-year guaranty period.
- b. Labor and material payment bond shall remain in effect until the Notice of Completion is filed by the Owner and any stop notices received by the Owner have been released.

4.0 **INSURANCE**

- a. After award of the contract, the Contractor shall promptly obtain the insurance certificates required by Section 00 7213 and shall submit them to the Owner as specified.
- b. Insurance requirements must be met within the same ten (10) calendar day period allowed for execution of the contract and bonds.

5.0 **NOTICE TO PROCEED**

The Notice to Proceed will not be issued until the contract is properly executed, good and approved bonds are furnished, and all insurance requirements have been met and the certificates have been approved by the Owner. The Notice to Proceed will be issued on a Friday. The first chargeable working day shall be the following Monday. The Contractor shall begin work within 10 calendar days after receiving the Notice to Proceed.

6.0 **PRECONSTRUCTION CONFERENCE**

Prior to the issuance of the Notice to Proceed, a pre-construction conference will be held at Hayward City Hall for the purpose of discussing with the Contractor the scope of the work, contract Drawings and Project Manual, and the Contractor's schedule. Unless otherwise approved by the Owner, the Contractor's proposed superintendent shall be present and at least one representative from each listed major subcontractor. The time and date for the pre-construction conference will be scheduled by the Owner.

-END OF SECTION-

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00 51 00 - NOTICE OF AWARD

Date

Contractor Name
Contractor Address 1
Contractor Address 2

Subject: Project Name– **Project #**
Notice of Award

To Whom It May Concern,

Your company is the successful bidder and has been awarded the contract for the above project. Enclosed are three copies each of the forms for the Contract, Contract Bonds (Labor and Materials), and Contract Bonds (Faithful Performance) for this project. Please sign these forms and return all copies to the Engineering & Transportation Division, within **ten (10) days**, not including weekends and legal holidays, after receipt of this letter. Failure to return the documents within the time limit may be grounds for the City to assume that you have abandoned the contract and forfeited your Bidder's Bond.

After execution of the contract by the City, a copy will be returned to you for your files.

Proof of carriage of Workers' Compensation and Employer's Liability Insurance and Commercial General and Automobile Liability Insurance, as specified in paragraph 14.2, "Indemnity" and paragraph 13.1 "Insurance" Requirements," of section 00 72 13 of the Project Manual, shall be submitted for approval with the signed copies of the above documents.

No work is to be started until **(a)** the contracts are executed and your copy is returned to you, **(b)** City records indicate your company has an active Business License, **(c)** you attend a Pre-Construction Conference including sub-contractors, and **(d)** you receive a "Notice to Proceed." Inability to start work because of failure to obtain a City Business License is cause for suspending the contract by invoking paragraph 24, "Termination and Suspension" of section 00 72 13 of the Project Manual.

With Regards,

ALEX AMERI
Director of Public Works

-END OF SECTION-

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00 52 13 - CONTRACT

CONTRACT

THIS CONTRACT, dated for convenience this _____ day of _____ 202_, by and between

hereinafter referred to as "Contractor," and the CITY OF HAYWARD, a municipal corporation located in the County of Alameda, State of California, hereinafter referred to as "City,"

WITNESSETH:

That for and in consideration of the promises and agreements hereinafter made and exchanged the City and the Contractor agree as follows:

Contractor will furnish the necessary labor, materials, tools, and equipment and perform all the work required for

Fire Station #6 & Fire Training Center

Project Nos. 07481 & 07482

in accordance with the Contract Documents (including, but not limited to, Project Manual and Drawings) for said project, all of which are on file in the office of the City Clerk of said City of Hayward, and the proposal of said Contractor filed in the office of said City Clerk on _____, which project manual and drawings, and proposal are hereby referred to for further particulars and by such reference made a part hereof.

In the performance of the work and the furnishing of labor in connection therewith, it is understood and agreed that all of the rights, duties, and obligations imposed upon Contractor by Division 2, Part 7, Chapter 1 of the Labor Code of the State of California (Sections 1720 to 1861) shall be applicable.

For convenience only and not to limit the application of the aforesaid State Labor Code provisions, the following of said provisions have particular application:

- Article 1 - "Scope and Operation" (1720-1740)
- Article 2 - "Wages" (1770-1780)
- Article 3 - "Working Hours" (1810-1815)
- Article 5 - "Securing Workers' Compensation" (1860-1861)

Contractor shall achieve Final Completion of the entire Work within **500 working days** from the date of Notice to Proceed.

The Contractor shall carry Workers' Compensation insurance and require all subcontractors to carry Workers' Compensation insurance, as required by Section 3700 of the Labor Code of the State of California.

The Contractor and his subcontractors shall pay their employees not less than the minimum prevailing wage rates predetermined by the Director of the Department of Industrial Relations, which rates are filed in the Office of said City Clerk, incorporated herein by this reference and made a part hereof.

The City shall pay to Contractor the price or prices stated, specified and set forth in the bid or bids of Contractor. Payment shall be made by City to Contractor in progress payments in amounts and at the time set forth in said Project Manual. The awarded contract amount for completion of work in accordance with the Contract Documents is \$_____.

IN WITNESS WHEREOF, the said Contractor has executed this contract, and the City of Hayward, by and through its City Manager, so authorized to act, has caused the same to be executed.

(Print/Type Company Name)

(Print/Type Name of Company Official)

Signature of Company Official

CITY OF HAYWARD
a municipal corporation,

APPROVED AS TO FORM:

Michael Lawson
City Attorney

BY: _____
Kelly McAdoo
City Manager

Alex Ameri
Director of Public Works

ATTEST: _____
Miriam Lens
City Clerk

BOND NO. _____
PROJECT NO. _____

LABOR AND MATERIALS BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City of Hayward (hereinafter referred to as "City") has awarded to _____ (hereinafter referred to as "Contractor") an agreement for _____ Fire Station #6 & Fire Training Center _____ (hereinafter referred to as the "Project").

WHEREAS, and the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for labor performed and materials furnished for the aforesaid work and for amounts due under the Unemployment Insurance Act of the State of California with respect to such work,

NOW THEREFORE, we, _____, the undersigned Contractor, and _____, as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound to all persons furnishing any materials or supplies used in, upon, for, or about the performance of the aforesaid work under the aforesaid contract, and all persons performing any work or labor of any kind thereon, and all persons entitled to receive any sums of money due under the Unemployment Insurance Act of the State of California with respect to such work or labor, and all other persons, if any, entitled to file claims under Title 15 (commencing with Section 3082), Part 4, Division 3, of the Civil Code of the State of California with respect to such materials, supplies, work, or labor, unto the City in the sum of _____ dollars, (\$ _____), said sum being not less than one hundred and ten percent (110%) of the total amount of the Contract, for which amount well and truly to be made, we and each of us bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its subcontractors shall fail to pay for any materials or supplies used in, upon for or about the performance of the aforesaid work under the aforesaid contract or for any work or labor of any kind thereon, or for any sums of money due under the Unemployment Insurance Act of the State of California with respect to such work or labor, or for any sums of money due persons entitled to file claims under Title 15 (commencing with Section 3082), Part 4, Division 3, of the Civil Code of the State of California with respect to such materials, supplies, work, or labor, the aforesaid Surety will pay the same in an amount not to exceed the sum of this bond specified above.

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 Contractor and Surety above named on the _____ day of _____ 202__ the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

PRINCIPAL/CONTRACTOR:	SURETY:
[Name of Contractor]	[Name of Surety]
Signature	Signature of Attorney-In-Fact
[Name]	[Name of Attorney-In-Fact]
[Title]	
SEAL	SEAL

NOTE: A copy of the Power-of-Attorney to local representatives of the bonding company must be attached hereto.

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City of Hayward (hereinafter referred to as "City") has awarded to _____ (hereinafter referred to as "Contractor") an agreement for Fire Station #6 & Fire Training Center (hereinafter referred to as the "Project").

WHEREAS, and the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for faithful performance of said Contract Documents.

NOW THEREFORE, we, _____, the undersigned Contractor, and _____, as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the City in the sum of _____ dollars, (\$_____), said sum being not less than one hundred and ten percent (110%) of the total amount of the Contract, for which amount well and truly to be made, we and each of us bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, 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 Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify, defend and save harmless the City, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the Acceptance of the Work by City, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the City 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 City'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.

Whenever Contractor shall be, and is declared by the City to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the City's option:

- 1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents;
- 2) Obtain a Bid or Bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible Bidder, arrange for a Contract between such Bidder, the Surety and the City, and

make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the Contract price, including other costs and damages for which Surety may be liable. The term "balance of the Contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents;

- 3) Permit the City to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the Contract price, including other costs and damages for which Surety may be liable. The term "balance of the Contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the City may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a Bid from Contractor for completion of the Project if the City, when declaring the Contractor in default, notifies Surety of the City's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations 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 Documents or to the Project.

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 Contractor and Surety above named on the _____ day of _____ 202__ the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

PRINCIPAL/CONTRACTOR:	SURETY:
[Name of Contractor]	[Name of Surety]
Signature	Signature of Attorney-In-Fact
[Name]	[Name of Attorney-In-Fact]
[Title]	
SEAL	SEAL

NOTE: A copy of the Power-of-Attorney to local representatives of the bonding company must be attached hereto.

-END OF SECTION-

00 55 00 - NOTICE TO PROCEED

Date

Contractor's Name
Contractor's Address 1
Contractor's Address 2

SUBJECT: NOTICE TO PROCEED – Project Name– Project Number

To Whom It May Concern,

You are hereby directed to proceed with the diligent prosecution of the work embraced in the plans and specifications for the subject project as follows:

Date of the Notice to Proceed:

First Chargeable Work Day Under the Contract:

You are reminded of the time limitation in Section 00 31 13 of the Project Manual.

Overall work is to be completed before the expiration of **xxx** working days (working days number) work days after the effective date of this notice.

With Regards,

ALEX AMERI
Director of Public Works

-END OF SECTION-

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00 65 19 - AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS

THIS AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS ("Agreement and Release"), made and entered into this [] day of [], 202_, by and between the CITY OF HAYWARD ("City of Hayward"), and _____ ("Contractor"), whose place of business is at:

_____.

RECITALS

- A. City of Hayward and Contractor entered into Contract (the "Contract").
- B. The Work under the Contract has been completed.

Now, therefore, it is mutually agreed between City of Hayward and Contractor as follows:

AGREEMENT

- 1. Contractor will not be assessed liquidated damages except as detailed below:

Original Contract Sum	\$ _____
Modified Contract Sum	\$ _____
Payment to Date	\$ _____
Liquidated Damages	\$ _____
Payment Due Contractor	\$ _____

- 2. Subject to the provisions of this Agreement and Release, City of Hayward will forthwith pay to Contractor the sum of \$ _____ Dollars and _____ Cents (\$ _____) under the Contract, less any amounts withheld under the Contract or represented by any Notice to Withhold Funds on file with City of Hayward as of the date of such payment.

- 3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against City of Hayward arising from the Contract, except for the claims described in paragraph 4 of this Section 00 65 19. It is the intention of the parties in executing this Agreement and Release that this Agreement and Release shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against City of Hayward, and all of its agents, employees, consultants (including without limitation Consulting Engineer), inspectors, representatives, assignees and transferees except for the Disputed Claims set forth in paragraph 4 of this Section 00 65 19. Nothing in this Agreement and Release shall limit or modify Contractor's continuing obligations described in paragraph 6 of this Section 00 65 19.

- 4. The following claims are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release:

<u>Claim No.</u>	<u>Date Submitted</u>	<u>Description of Claim</u>	<u>Amount of Claim</u>
------------------	-----------------------	-----------------------------	------------------------

- 5. Consistent with California Public Contract Code Section 7100, Contractor hereby agrees that, in consideration of the payment set forth in paragraph 2 of this Section 00 65 19, Contractor hereby releases and forever discharges City of Hayward, and all of its agents, employees, consultants,

inspectors, assignees and transferees from any and all liability, claims, demands, actions or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.

6. Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.
7. Contractor shall immediately defend, indemnify and hold harmless the City of Hayward , any of its Representatives, Architects/Engineers, and all of their agents, employees, consultants, inspectors, assignees and transferees, from any and all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities that may be asserted against them by any of Contractor's suppliers and/or Subcontractors of any tier and/or any suppliers to them for any and all labor, materials, supplies and equipment used, or contemplated to be used in the performance of the Contract, except for the Disputed Claims set forth in paragraph 4 of this Section 00 65 19.
8. Contractor hereby waives the provisions of California Civil Code Section 1542, which provides as follows:

A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her, must have materially affected his or her settlement with the debtor.
9. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable, and if any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal or other law, ruling, or regulation, then such provision, or part thereof shall remain in force and effect only to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.
10. Contractor represents and warrants that it is the true and lawful owner of all claims and other matters released pursuant to this Agreement and Release, and that it has full right, title and authority to enter into this instrument. Each party represents and warrants that it has been represented by counsel of its own choosing in connection with this Agreement and Release.
11. All rights of City of Hayward shall survive completion of the Work or termination of the Contract, and execution of this Agreement and Release.

***** CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING *****

CITY OF HAYWARD

By: _____

Title: Alex Ameri, Director of Public Works

[CONTRACTOR]

By: _____

Name: _____

Its: _____

-END OF SECTION-

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00 65 36 - GUARANTY

TO THE CITY OF HAYWARD for construction of

Hayward Fire Station #6 & Fire Training Center

The undersigned guarantees all construction performed on this Projects and also guarantees all material and equipment incorporated therein.

Contractor hereby grants to City of Hayward for a period of one year following the date of completion, or such longer period specified in the Contract Documents, its unconditional warranty of the quality and adequacy of all of the Work including, without limitation, all labor, materials and equipment provided by Contractor and its Subcontractors of all tiers in connection with the Work.

Neither final payment nor use or occupancy of the Work performed by the Contractor shall constitute an acceptance of Work not done in accordance with this Guaranty or relieve Contractor of liability in respect to any express warranties or responsibilities for faulty materials or workmanship. Contractor shall remedy any defects in the Work and pay for any damage resulting therefrom, which shall appear within one year, or longer if specified, from the date of Final Completion.

If within one year after the date of Acceptance of work, or such longer period of time as may be prescribed by laws or regulations, or by the terms of Contract Documents, any Work is found to be defective, Contractor shall promptly, without cost to City of Hayward and in accordance with City of Hayward written instructions, correct such defective Work. Contractor shall remove any defective Work rejected by City of Hayward and replace it with Work that is not defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, City of Hayward may have the defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct defective Work, or defects are discovered outside the correction period, City of Hayward shall have all rights and remedies granted by law.

Inspection of the Work shall not relieve Contractor of any of its obligations under the Contract Documents. Even though equipment, materials, or Work required to be provided under the Contract Documents have been inspected, accepted, and estimated for payment, Contractor shall, at its own expense, replace or repair any such equipment, material, or Work found to be defective or otherwise not to comply with the requirements of the Contract Documents up to the end of the guaranty period.

All abbreviations and definitions of terms used in this Agreement shall have the meanings set forth in the Contract Documents, including, without means of limitation, Section 014200 (References and Definitions).

The foregoing Guaranty is in addition to any other warranties of Contractor contained in the Contract Documents, and not in lieu of, any and all other liability imposed on Contractor under the Contract Documents and at law with respect to Contractor's duties, obligations, and performance under the Contract Documents. In the event of any conflict or inconsistency between the terms of this Guaranty and any warranty or obligation of the Contractor under the Contract Documents or at law, such inconsistency or conflict shall be resolved in favor of the higher level of obligation of the Contractor.

Firm/Company

Address

Signature

City/State/Zip

Name and Title

Date

-END OF SECTION-

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SECTION 00 72 13

GENERAL CONDITIONS

1. CONTRACT TERMS AND DEFINITIONS

1.1. Definitions

Wherever used in the Contract Documents, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof (*also refer to other sections including, but not limited to, 01 4216 "Definitions"*):

1.1.1. Approval, Approved, and/or Accepted: Refer to written authorization, unless stated otherwise.

1.1.2. Architect: The individual, partnership, corporation, joint venture, or any combination thereof, named as Architect, who will have the rights and authority assigned to the Architect in the Contract Documents. The term Architect means the Owner's Architect on this Project or the Architect's authorized representative. Also referred to as "**Architect/Engineer**" or "**A/E**". The Owner has selected RossDrulisCusenbery Architecture or "**RDC**" as the Architect for this project.

1.1.3. Bidder: A contractor who intends to provide a proposal to the Owner to perform the Work of this Contract.

1.1.4. Change Order: A written order to the Contractor executed and approved by the Owner authorizing an addition to, deletion from, or revision in the Work, and/or authorizing an adjustment in the Contract Price or Contract Time. Also referred to as "**Administrative Change Order**", "**ACO**" or "**CO**".

1.1.5. Construction Directive: A written order executed and issued by the Owner, or the Construction Manager, directing a change in the Work or directing Contractor to perform work disputed to be a change in the Work.

1.1.6. Construction Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the Owner. The Owner has selected Kitchell CEM or "**KCEM**" as the Construction Manager.

1.1.7. Construction Schedule: The progress schedule of construction of the Project as provided by Contractor and approved by the Owner.

1.1.8. Contract, Contract Documents: The Contract consists exclusively of the documents evidencing the agreement of the Owner and Contractor, identified as the Contract Documents. The Contract Documents consist of the following documents:

1.1.8.1. Project Manual & Drawings/Plans (including Volumes 1 through 8)

1.1.8.2. Any and all addenda to any of the above documents

1.1.8.3. Any and all change orders or written modifications to the above documents if approved in writing by the Owner.

1.1.9. Contract Price: The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.10. Contract Time: The time period stated in the Notice to Proceed for the completion of the Work.

1.1.11. Contractor: The person or persons identified in the Contract as contracting to perform the Work to be done under this Contract, or the legal representative of such a person or persons.

1.1.12. Daily Job Report(s): Daily Project reports prepared by the Contractor's employee(s) who are present on Site, which shall include the information required herein.

1.1.13. Day(s): Unless otherwise designated, day(s) means calendar day(s).

1.1.14. Owner: The public agency for which the Work is performed, The City of Hayward or its expressed designees will act for the Owner in all matters pertaining to the Contract. "**Owner**" may also be referred to as "**City**".

1.1.14.1. Direct the Contractor to communicate with or provide notice to the Construction Manager on matters for which the Contract Documents indicate the Contractor will communicate with or provide notice to the Owner.

1.1.14.2. Direct the Construction Manager or the Architect to communicate with or direct the Contractor on matters for which the Contract Documents indicate the Owner will communicate with or direct the Contractor.

1.1.15. Drawings: (or "Plans") The graphic and pictorial portions of the Contract Documents showing the design, location, scope and dimensions of the work, generally including plans, elevations, sections, details, schedules, sequence of operation, and diagrams.

1.1.16. Not Used

1.1.17. Labor Compliance Program: See Community Workforce Agreement or "CWA" as Exhibit D.

1.1.18. Product(s): New material, machinery, components, equipment, fixtures and systems forming the Work, including existing materials or components required and approved by the Owner for reuse.

1.1.19. Product Data: Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work.

1.1.20. Project: The planned undertaking as provided for in the Contract Documents.

1.1.21. Project Inspector: (or "**Inspector**", "**Inspector-of-Record**", "**IOR**") The individual(s) retained by the Owner in accordance with title 24 of the California Code of Regulations to monitor and inspect the Project. The Owner has selected ABC Inspections or "**ABC**" as the Project Inspector.

1.1.22. Program Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the Owner. The owner has designated Kitchell CEM as the Program Manager.

1.1.23. Provide: Shall include "provide complete in place," that is, "furnish and install," and "provide complete and functioning as intended in place" unless specifically stated otherwise.

1.1.24. Request for Information (RFI): A written request prepared by the Contractor requesting that the Architect provide additional information necessary to clarify or amplify an item in the Contract Documents that the Contractor believes is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address problems that have arisen under field conditions.

1.1.25. Request for Substitution: A request by Contractor to substitute an equal or superior material, product, thing, or service for a specific material, product, thing, or service that has been designated in the Contract Documents by a specific brand or trade name.

1.1.26. Safety Orders: Written and/or verbal orders for construction issued by the California Division of Industrial Safety ("CalOSHA") or by the United States Occupational Safety and Health Administration ("OSHA").

1.1.27. Safety Plan: Contractor's safety plan specifically adapted for the Project. Contractor's Safety Plan shall comply with all provisions regarding Project safety, including all applicable provisions in these General Conditions.

1.1.28. Samples: Physical examples that illustrate materials, products, equipment, finishes, colors, or workmanship and that, when approved in accordance with the Contract Documents, establish standards by which portions of the Work will be judged.

1.1.29. Shop Drawings: All drawings, prints, diagrams, illustrations, brochures, schedules, and other data that are prepared by the Contractor, a subcontractor, manufacturer, supplier, or distributor, that illustrate how specific portions of the Work shall be fabricated or installed.

1.1.30. Site: The Project site as shown on the Drawings.

1.1.31. Specifications: That portion of the Contract Documents, Division 1 through Division 49, and all technical sections, and addenda to all of these, if any, consisting of written descriptions and requirements of a technical nature of materials, equipment, construction methods and systems, standards, and workmanship.

1.1.32. Subcontractor: A contractor and/or supplier who is under contract with the Contractor or with any other subcontractor, regardless of tier, to perform a portion of the Work of the Project.

1.1.33. Submittal Schedule: The schedule of submittals as provided by Contractor and approved by Owner.

1.1.34. Surety: The person, firm, or corporation that executes as surety the Contractor's Performance Bond and Payment Bond, and must be a California admitted surety insurer as defined in the Code of Civil Procedure section 995.120 and shall have current A.M Best Rating, not less than "A-, VIII".

1.1.35. Work: All labor, materials, equipment, components, appliances, supervision, coordination, documentation and services required by, or reasonably inferred from, the Contract Documents, that are necessary for the construction and completion of the Project.

1.2. Laws Concerning The Contract

Each and every provision required by law to be set forth in this Contract shall be deemed to have been set forth herein, and this Contract shall be read and enforced as though all such provisions are set forth herein. If, for any reason, any provision required by law is not set forth herein, or is not correctly set forth herein, then, upon request of either Party, the Parties shall amend this Contract to the extent necessary to set forth, or correctly set forth, such provision.

1.3. No Oral Agreements

No oral agreement or conversation with any officer, agent, representative or employee of Owner, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

1.4. No Assignment

Contractor shall not assign this Contract or any part thereof including, without limitation, any services or money to become due hereunder without the prior written consent of the Owner. Assignment without

Owner's prior written consent shall be null and void. Any assignment of money due or to become due under this Contract shall be subject to a prior lien for services rendered or material supplied for performance of work called for under this Contract in favor of all persons, firms, or corporations rendering services or supplying material to the extent that claims are filed pursuant to the Civil Code, Code of Civil Procedure, Government Code, Labor Code, and/or Public Contract Code, and shall also be subject to deductions for liquidated damages or withholding of payments as determined by Owner in accordance with this Contract. Contractor shall not assign or transfer in any manner to a Subcontractor or supplier the right to prosecute or maintain an action against the Owner.

1.5. Notice And Service Thereof

1.5.1. Any notice from one party to the other or otherwise under Contract shall be in writing and shall be dated and signed by the party giving notice or by a duly authorized representative of that party. Any notice shall not be effective for any purpose whatsoever unless served in one of the following manners:

1.5.1.1. If notice is given by personal delivery thereof, it shall be considered delivered on the day of delivery.

1.5.1.2. If notice is given by overnight delivery service, it shall be considered delivered on one (1) day after date deposited, as indicated by the delivery service.

1.5.1.3. If notice is given by depositing same in United States mail, enclosed in a sealed envelope, it shall be considered delivered three (3) days after date deposited, as indicated by the postmarked date.

1.5.1.4. If notice is given by registered or certified mail with postage prepaid, return receipt requested, it shall be considered delivered on the day the notice is signed for.

1.6. No Waiver

The failure of Owner in any one or more instances to insist upon strict performance of any of the terms of this Contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion. No action or failure to act by the Owner, Architect, or Construction Manager shall constitute a waiver of any right or duty afforded the Owner under the Contract, nor shall any action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

1.7. Substitutions For Specified Items

1.7.1. See Special Conditions

1.8. Materials and Work

1.8.1. Except as otherwise specifically stated in this Contract, Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, superintendence, temporary constructions of every nature, and all other services, management, and facilities of every nature whatsoever necessary to execute and complete this Contract within the Contract Time.

1.8.2. Unless otherwise specified, all materials shall be new and the best of their respective kinds and grades as noted or specified, and workmanship shall be of good quality.

1.8.3. Materials shall be furnished in ample quantities and at such times as to insure uninterrupted progress of Work and shall be stored properly and protected as required.

1.8.4. For all materials and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working

systems, functioning as intended. Incidental items not indicated on Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized here in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.

1.8.5. Contractor shall, after award of Contract by Owner and after relevant submittals have been approved, place orders for materials and/or equipment as specified so that delivery of same may be made without delays to the Work. Contractor shall, upon demand from Owner, present documentary evidence showing that orders have been placed.

1.8.6. Owner reserves the right but has no obligation, for any neglect in complying with the above instructions, to place orders for such materials and/or equipment as it may deem advisable in order that the Work may be completed at the date specified in the Agreement, and all expenses incidental to the procuring of said materials and/or equipment shall be paid for by Contractor or withheld from payment(s) to Contractor.

1.8.7. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver the Site to Owner, together with all improvements and appurtenances constructed or placed thereon by it, and free from any claims, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any work covered by the Contract shall have any right to lien any portion of the Premises or any improvement or appurtenance thereon, except that Contractor may install metering devices or other equipment of utility companies or of political subdivision, title to which is commonly retained by utility company or political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise Owner as to owner thereof.

1.8.8. Nothing contained in this Article, however, shall defeat or impair the rights of persons furnishing materials or labor under any bond given by Contractor for their protection or any rights under any law permitting such protection or any rights under any law permitting such persons to look to funds due Contractor in hands of Owner (e.g., Stop Notices), and this provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

1.8.9. Title to new materials and/or equipment for the Work of this Contract and attendant liability for its protection and safety shall remain with Contractor until incorporated in the Work of this Contract and accepted by Owner. No part of any materials and/or equipment shall be removed from its place of storage except for immediate installation in the Work of this Contract. Contractor shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to Owner or its authorized representative and shall, at the Owner's request, forward it to the Owner.

2. OWNER

2.1. Occupancy

Owner reserves the right to occupy portions of the Project at any time before completion. Neither the Owner's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by Owner shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein. Also refer to section 01 7700 "Closeout Procedures".

2.2. Owner's Right to Perform Work

2.2.1. If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this contract, the Owner, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may, without

prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

2.2.2. If it is found at any time, before or after completion of the Work, that Contractor has varied from the Contract Documents, including, but not limited to, variation in material, quality, form, or finish, or in the amount or value of the materials and labor used, Owner may require at its option:

2.2.2.1. That all such improper Work be removed, remade or replaced, and all work disturbed by these changes be made good by Contractor at no additional cost to the Owner;

2.2.2.2. That the Owner deduct from any amount due Contractor the sum of money equivalent to the difference in value between the work performed and that called for by the Drawings and Specifications; or

2.2.2.3. That the Owner exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the Owner hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the Owner shall either issue a deductive Change Order, a Construction Directive, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or Owner may withhold those amounts from payment(s) to Contractor.

2.2.3. Also refer to section 01 7700 "Closeout Procedures".

3. ARCHITECT

3.1. The Architect shall represent the Owner during the Project and will observe the progress and quality of the Work on behalf of the Owner. Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Architect's reasonable opinion, to insure the proper execution of the Contract.

3.2. Architect shall, with the Owner and Construction Manager on behalf of the Owner, determine the amount, quality, acceptability, and fitness of all parts of the Work, and interpret the Specifications, Drawings, and shall, with the Owner, interpret all other Contract Documents.

3.3. Architect shall have all authority and responsibility established by law, including title 24 of the California Code of Regulations.

3.4. Architect shall forward through the Construction Manager all written communication to the Contractor or Owner including, without limitation, all RFIs, correspondence, submittals, claims, and Change Order Requests.

4. CONSTRUCTION MANAGER

4.1. The Construction Manager will provide administration of the Contract on the Owner's behalf. After execution of the Contract and Notice to Proceed, all correspondence and/or instructions from Contractor and/or Owner and Architect shall be forwarded through the Construction Manager. The Construction Manager will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures or for safety precautions in connection with the Work, which shall all remain the Contractor's responsibility.

4.2. The Construction Manager, however, will have authority to reject materials and/or workmanship not conforming to the Contract Documents, as determined by the Owner, the Architect, and/or the Project Inspector. The Construction Manager shall also have the authority to require special inspection or testing of any portion of the Work, whether it has been fabricated, installed, or fully completed. Any decision made by the Construction Manager, in good faith, shall not give rise to any duty or responsibility of the Construction Manager to the Contractor, any Subcontractor, their agents, employees, or other persons performing any of the Work. The Construction Manager shall have free access to any or all parts of Work at any time.

5. INSPECTOR, INSPECTIONS, AND TESTS

5.1. Project Inspector

5.1.1. To the extent required by the Essential Services Building Seismic Safety Act of 1986, one or more Project Inspector(s), including special Project Inspector(s), as required, will be assigned to the Work by Owner, in accordance with requirements of title 24, part 1, of the California Code of Regulations, to enforce the building code and monitor compliance with Drawings and Project Manual for the Project previously approved by the City of Hayward. Duties of Project Inspector(s) are specifically defined in section 4-342 of said part 1 of title 24.

5.1.2. No Work shall be carried on except with the knowledge and under the inspection of the Project Inspector(s). The Project Inspector(s) shall have free access to any or all parts of Work at any time. Contractor shall furnish Project Inspector(s) reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector(s) fully informed respecting progress and manner of work and character of materials. Inspection of Work shall not relieve Contractor from an obligation to fulfill this Contract. Project Inspector(s) and Owner are authorized to stop work whenever the Contractor and/or its Subcontractor(s) are not complying with the Contract Documents. Any work stoppage by the Project Inspector(s) and/or the Owner shall be without liability to the Owner. Contractor shall instruct its Subcontractors and employees accordingly.

5.1.3. If Contractor and/or any Subcontractor requests that the Project Inspector(s) perform any inspection off-site, this shall only be done if it is allowable pursuant to applicable regulations and the City of Hayward, if the Project Inspector(s) agree to do so, and at the expense of the Contractor.

5.2. Tests and Inspections

5.2.1. Tests and Inspections shall comply with title 24, part 1, California Code of Regulations, group 1, article 5, section 4-335, and with the provisions of the Specifications (including all requirements of DSA).

5.2.2. Work and materials, and manufacture and preparation of materials, from beginning of construction until Final Completion and Final Acceptance of Work, shall be subject to inspection and rejected by the Owner, its agents, Construction Manager, or independent contractors retained by the Owner to perform inspection services, or governmental agencies with jurisdictional interests. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's site safety procedures and program so that they may comply therewith as applicable.

5.2.3. Contractor shall give Construction Manager written notice of readiness of the Work **at least 48 hours in advance** for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

5.2.4. The Owner will select an independent testing laboratory to conduct the tests. Selection of the materials required to be tested shall be by the laboratory or the Owner's representative and not by the Contractor. The Contractor shall notify the Construction Manager a sufficient time in advance of its readiness for required observation or inspection.

5.2.5. The Contractor shall notify in writing to the Construction Manager a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents that must by terms of the Contract Documents be tested, in order that the Owner may arrange for the testing of same at the source of supply. This notice shall be, at a minimum, seventy-two (72) hours prior to the manufacture of the material that needs to be tested.

5.2.6. Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said representative that such testing and inspection will not be required, shall not be incorporated into and/or onto the Project.

5.2.7. The Owner will select and pay testing laboratory costs for all special tests and inspections. Costs of tests of any materials found to be not in compliance with the Contract Documents shall be paid for by the Owner and reimbursed by the Contractor or deducted from the Contract Price.

5.2.8. If any Work (or the work of others) that is required to be inspected, tested or approved is covered by Contractor prior to such inspection, testing or approval, without written approval of Construction Manager, it must, if requested by Construction Manager, be uncovered. Uncovering Work shall be a Contractor's expense unless Contractor has given Construction Manager timely notice of Contractor's intention to cover the same and Construction Manager has given its written approval of the covering of the Work.

5.2.9. Inspection shall not relieve the Contractor of its obligations to have furnished material and workmanship in accordance of the Specifications.

5.2.10. Also refer to section 01 4523 "Testing and Inspecting Services".

5.3. Costs for After Hours and/or Off Site Inspections

If the Contractor causes delay(s) on the Project and performs Work outside the Inspector's regular working hours or requests the Inspector to perform inspections off Site, costs of any of those inspection(s) shall be borne by the Contractor and the Owner may deduct those expenses from the next Progress Payment.

All work performed on Saturdays, Sundays, any City holidays, or on weekdays before 7:30 a.m. or after 4:30 p.m. shall be subject to charges for overtime inspection by the Project or City Inspector. The overtime inspection is charged at one and one-half times the hourly rate (or double-time if applicable for Sundays and holidays) and will be backcharged to the Contractor.

6. CONTRACTOR

Contractor shall construct the Work for the Contract Price including any adjustment(s) to the Contract Price pursuant to provisions herein regarding changes to the Contract Price. Except as otherwise noted, Contractor shall provide and pay for all labor, materials, equipment, permits, fees, licenses, facilities, transportation, taxes, and services necessary for the proper execution and completion of the Work, except as indicated herein.

6.1. Status of Contractor

6.1.1. Contractor is and shall at all times be deemed to be an independent contractor and shall be wholly responsible for the manner in which it performs the services required of it by the Contract Documents. Nothing herein contained shall be construed as creating the relationship of employer and employee, or principal and agent, between the Owner, or any of the Owner's employees or agents, and Contractor or any of Contractor's agents or employees. Contractor assumes exclusively the responsibility for the acts of its employees as they relate to the services to be provided during the course and scope of their employment. Contractor, its agents, and its employees shall not be entitled to any rights or privileges of Owner employees. Owner shall be permitted to monitor the Contractor's activities to determine compliance with the terms of this Contract.

6.1.2. As required by law, Contractor and all Subcontractors shall be properly licensed and regulated by the Contractors State License Board, 3132 Bradshaw Road, Post Office Box 2600, Sacramento, California 98826, <http://www.cslb.ca.gov>.

6.2. Contractor's Supervision

6.2.1. During progress of the Work, Contractor shall keep on the Premises, and at all other locations where any Work related to the Contract is being performed, at least a competent project manager and construction superintendent who are employees of the Contractor, to whom the Owner does not object and at least one of which shall be fluent in English, written and verbal.

6.2.2. The project manager and construction superintendent shall both speak fluently the predominant language of the Contractor's employees.

6.2.3. Before commencing the Work herein, Contractor shall give written notice to Owner of the name of its project manager and construction superintendent. Neither the Contractor's project manager nor construction superintendent shall be changed except with prior written notice to Owner, unless the Contractor's project manager and/or construction superintendent proves to be unsatisfactory to Contractor, Owner, any of the Owner's employees, agents, the Construction Manager, or the Architect, in which case, Contractor shall replace the individual with mutually agreeable replacement. The Contractor's project manager and construction superintendent shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.

6.2.4. Contractor shall give efficient supervision to Work, using its best skill and attention. Contractor shall carefully study and compare all Contract Documents, Drawings, Specifications, and other instructions and shall at once report to Owner, Construction Manager, and Architect any error, inconsistency, or omission that Contractor or its employees and Subcontractors may discover, in writing, with a copy to Owner's Project Inspector(s). The Contractor shall have responsibility for discovery of errors, inconsistencies, or omissions.

6.3. Duty to Provide Fit Workers

6.3.1. Contractor and Subcontractor(s) shall at all times enforce strict discipline and good order among their employees and shall not employ or work any unfit person or anyone not skilled in work assigned to that person. It shall be the responsibility of Contractor to ensure compliance with this requirement. Owner may require Contractor to permanently remove unfit persons from Project Site.

6.3.2. Any person in the employ of Contractor or Subcontractor(s) whom Owner may deem incompetent or unfit shall be excluded from working on the Project and shall not again be employed on the Project except with the prior written consent of Owner.

6.3.3. The Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.

6.3.4. If Contractor intends to make any change in the name or legal nature of the Contractor's entity, Contractor must first notify the Owner. The Owner shall determine if Contractor's intended change is permissible while performing this Contract.

6.4. Purchase of Materials and Equipment

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from Owner to assure that there will be no delays.

6.5. Documents On Work

6.5.1. Contractor shall maintain all documents, books, papers, accounting records, computer files, and other information related to the Project and performance of the Work ("Project Records"), including, but not limited to, Change Orders, submittals, requests for information, daily reports, correspondence, permits, insurance policies, certificates of insurance, testing and inspection reports, and safety records. The Contractor shall keep such accurate and comprehensive Project Records as are (i) necessary for proper administration and performance of the Work and (ii) required by law or this Agreement. If the Contract Amount, as adjusted pursuant to this Agreement, exceeds \$10,000, then, in accordance with Government Code Section 8546.7, the State has the right to examine, review, audit and/or copy the Records of the Work during the three-year period following final payment to the Contractor pursuant to the Agreement. In addition, the City hereby has the right to examine, review, audit and/or copy the Records of the Work during the four-year period following final payment to the Contractor pursuant to the Agreement. Therefore, the Contractor shall make the Project Records available at its offices at all reasonable times during the

performance of the Work and for four years from the date the City accepts the Work. However, if any audit is commenced within such four-year period, the Contractor shall make the Project Records available at all reasonable times until proceedings related to such audit are complete and all statutes of limitation related thereto have expired. In the event the City notifies the Contractor that federal funds have been used in connection with the Project, the Contractor shall retain and make available the Project Records for such longer period as may be required by federal law.

Also refer to other sections, including but not limited to, section 01 7839 "Project Record Documents.

6.5.2. Daily Job Reports.

6.5.2.1. Contractor shall maintain, at a minimum, at least one (1) set of Daily Job Reports (also referred as Daily Construction Report) on the Project. Daily job reports are not a substitute for written Notice of Claim as required in Section 25 or other notice requirements in the Contract Documents. These must be prepared by the Contractor's employee(s) who are present on Site, and must include, at a minimum, the following information:

- 6.5.2.1.1.** A brief description of all Contract Work performed on that day, including all related activity IDs corresponding to the Project Schedule.
- 6.5.2.1.2.** A brief description of all Change Order Work performed that day with a list of each employee working on Change Order Work and the total hours worked on Change Order Work for each employee.
- 6.5.2.1.3.** A summary of all other pertinent events and/or occurrences on that day.
- 6.5.2.1.4.** The weather conditions on that day.
- 6.5.2.1.5.** A list of all Subcontractor(s) working on that day,
- 6.5.2.1.6.** A list of each Contractor employee working on that day and the total hours worked for each employee.
- 6.5.2.1.7.** A complete list of all equipment on Site that day, whether in use or not.
- 6.5.2.1.8.** A complete list of all materials, supplies, and equipment delivered on that day.
- 6.5.2.1.9.** A complete list of all inspections and tests performed on that day.

6.5.2.2. Each day Contractor shall provide submit the previous day's Daily Job Report to the Construction Manager (via PROCORE) by no later than 12:00 pm.

6.5.2.3. Also refer to other sections, including but not limited to, section 1 3219 "Submittal Schedules, Daily and Field Reports" and section 01 3200 "Construction Progress Documentation".

6.6. Preservation of Records

The Owner or Construction Manager shall have the right to examine and audit all Daily Job Reports or other Project records of Contractor's project manager(s), project superintendent(s), and/or project foreperson(s), all certified payroll records and/or related documents including, without limitation, payroll, payment, timekeeping and tracking documents; all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports, and other data of the Contractor, any Subcontractor, and/or supplier, including computations and projections related to bidding, negotiating, pricing, or performing the Work or Contract modification, in order to evaluate the accuracy, completeness, and currency of the cost, manpower, coordination, supervision, or pricing data at no additional cost to the Owner. These documents may be duplicative and/or be in addition to any Bid Documents held in escrow by the Owner. The Contractor shall make available at its office at all reasonable times the materials described in this paragraph for the examination, audit, or reproduction until three (3) years after final payment under this Contract. Notwithstanding the provisions above, Contractor shall provide any records requested by any governmental agency, if available, after the time set forth above.

6.7. Integration of Work

6.7.1. Contractor shall do all cutting, fitting, patching, and preparation of Work as required to make its several parts come together properly, to fit it to receive or be received by work of other contractors, and to coordinate the various pieces of work, showing upon, or reasonably implied by, the Drawings and Specifications for the completed structure, and shall conform them as Owner and/or Architect may direct.

6.7.2. All cost caused by defective or ill-timed Work shall be borne by Contractor, inclusive of repair work.

6.7.3. Contractor shall not endanger any work performed by it or anyone else by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other contractor except with consent of Owner.

6.7.4. Also refer to other sections, including but not limited to, section 01 7329 "Cutting and Patching".

6.8. Obtaining of Permits and Licenses

Contractor shall secure and pay for all permits, licenses, and certificates necessary for prosecution of Work before the date of the commencement of the Work or before the permits, licenses, City licenses and certificates are legally required to continue the Work without interruption. The Contractor and all sub-contractors shall obtain and pay, only when legally required, for all licenses, permits, inspections, and inspection certificates required to be obtained from or issued by any authority having jurisdiction over any part of the Work included in the Contract. **City permits to be addressed as noted in section 00 31 43 "Permits and Deferred Submittals"**. All final permits, licenses, and certificates shall be delivered to Owner before demand is made for Final Payment.

6.9. Work to Comply With Applicable Laws and Regulations

6.9.1. Contractor shall give all notices and comply with the following specific laws, ordinances, rules, and regulations and all other applicable laws, ordinances, rules, and regulations bearing on conduct of Work as indicated and specified, including but not limited to the appropriate statutes and administrative code sections. If Contractor observes that Drawings and Specifications are at variance therewith, or should Contractor become aware of the development of conditions not covered by Contract Documents that will result in finished Work being at variance therewith, Contractor shall promptly notify Owner in writing and any changes deemed necessary by Owner shall be made as provided in Contract for changes in Work.

- 6.9.1.1.** National Electrical Safety Code, U. S. Department of Commerce
- 6.9.1.2.** National Board of Fire Underwriters' Regulations
- 6.9.1.3.** Uniform Building Code, latest addition, and the California Code of Regulations, title 24, including amendments
- 6.9.1.4.** Manual of Accident Prevention in Construction, latest edition, published by A.G.C. of America
- 6.9.1.5.** Industrial Accident Commission's Safety Orders, State of California
- 6.9.1.6.** Regulations of the State Fire Marshall (Title 19, California Code of Regulations) and Pertinent Local Fire Safety Codes
- 6.9.1.7.** American with Disabilities Act
- 6.9.1.8.** Education Code of the State of California
- 6.9.1.9.** Government Code of the State of California
- 6.9.1.10.** Labor Code of the State of California, Division 2, Part 7, Public Works and Public Agencies
- 6.9.1.11.** Public Contract Code of the State of California
- 6.9.1.12.** California Art Preservation Act
- 6.9.1.13.** U. S. Copyright Act
- 6.9.1.14.** U. S. Visual Artists Rights Act
- 6.9.1.15.** All other laws, codes and regulations referred to in the Contract Documents, including sheet G-A0.05.

6.9.2. Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act (Public Resources Code section 21000 et. Seq.)

6.9.3. If Contractor performs any Work that it knew, or through exercise of reasonable care should have known, to be contrary to any applicable laws, ordinance, rules, or regulations, Contractor shall bear all costs arising there from.

6.9.4. Where Specifications or Drawings state that materials, processes, or procedures must be approved by the City of Hayward, State Fire Marshall, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies.

6.9.5. Also refer to other sections including, but not limited to, section 01 4100 "Regulatory Requirements".

6.10. Safety/Protection of Persons and Property

6.10.1. Except to the extent of the active negligence, sole negligence or willful misconduct of the City or any of the City Agents, the Contractor shall be responsible for any and all damages to property and injury to persons that occur in connection with the performance of the Work. Subject to the foregoing, all Work shall be performed at the Contractor's sole risk. The Contractor shall be responsible for the proper care and protection of all materials delivered and Work performed until completion and final acceptance by the City. This section is in addition and not in limitation of other provisions of the Contract.

6.10.2. The Contractor will be solely and completely responsible for conditions of the Work Site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours.

6.10.3. The wearing of hard hats will be mandatory at all times for all personnel on Site. Contractor shall supply sufficient hard hats to properly equip all employees and visitors.

6.10.4. Any construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the Work Site.

6.10.5. Implementation and maintenance of safety programs shall be the sole responsibility of the Contractor.

6.10.6. The Contractor shall furnish to the Owner a copy of the Contractor's safety plan within the time frame indicated in the Contract Documents and specifically adapted for the Project.

6.10.7. Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of this Contract and shall take all necessary measures and be responsible for the proper care and completion and final acceptance by Owner. All Work shall be solely at Contractor's risk with the exception of damage to the Work caused by "Acts of God" as defined in Public Contract Code Section 7105.

6.10.8. Contractor shall take, and require Subcontractors to take, all necessary precautions for safety of workers on the Project and shall comply with all applicable federal, state, local, and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where work is being performed and to provide a safe and healthful place of employment. Contractor shall furnish, erect, and properly maintain at all times, all necessary safety devices, safeguards, construction canopies, signs, nets, barriers, lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction. Per California Senate Bill 1193, Civil Code Section 52.6, at the job site, the Contractor shall post "Stop Human Trafficking!" posters attached as an Exhibit C at the end of these Project Manual.

6.10.9. Hazards Control – Contractor shall store volatile wastes in covered metal containers and remove them from the Site daily. Contractor shall prevent accumulation of wastes that create hazardous conditions. Contractor shall provide adequate ventilation during use of volatile or noxious substances.

6.10.10. Contractor shall designate a responsible member of its organization on the Project, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety, and health of workers. Name and position of person so designated shall be reported to Owner by Contractor.

6.10.11. Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, Contractor shall correct such violation promptly.

6.10.12. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent such threatened loss or injury. Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.

6.10.13. All salvage materials will become the property of the Contractor and shall be removed from the Site unless otherwise called for in the Contract Documents. However, the Owner reserves the right to designate certain items of value that shall be turned over to the Owner unless otherwise directed by Owner.

6.10.14. All connections to public utilities and/or existing on-site services shall be made and maintained in such a manner as to not interfere with the continuing use of same by the Owner during the entire progress of the Work.

6.10.15. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions, such as extreme heat, cold, rain, snow, dry winds, flooding, or dampness.

6.10.16. The Contractor shall protect and preserve the Work from all damage or accident, providing any temporary roofs, window and door coverings, boxings, or other construction as required by the Architect. The Contractor shall be responsible for existing structures, walks, roads, trees, landscaping, and/or improvements in working areas; and shall provide adequate protection therefor. If temporary removal is necessary of any of the above items, or damage occurs due to the Work, the Contractor shall replace same at his expense with same kind, quality, and size of Work or item damaged. This shall include any adjoining property of the Owner and others.

6.10.17. Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property, and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.

6.10.18. Contractor shall confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits, or directions of Architect, and shall not interfere with the Work or unreasonably encumber Premises or overload any structure with materials. Contractor shall enforce all instructions of Owner and Architect regarding signs, advertising, fires, and smoking, and require that all workers comply with all regulations while on Project Site.

6.10.19. Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, or any person associated with the Work shall conduct themselves in a manner appropriate for a public safety building site and for adjacent school site and public park sites. No verbal or physical contact with neighbors, students, and faculty, profanity, or inappropriate attire or behavior will be permitted. Owner may require Contractor to permanently remove non-complying persons from Project Site.

6.10.20. Contractor shall take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed, Contractor shall have a civil engineer, registered as a professional engineer in California; replace them at no cost to Owner.

In the event that the Contractor enters into any agreement with owners of any adjacent property to enter upon the adjacent property for the purpose of performing the Work, Contractor shall fully indemnify, defend, and hold harmless each person, entity, firm, or agency that owns or has any interest in adjacent property. The form and content of the agreement of indemnification shall be approved by the Owner prior to the commencement of any Work on or about the adjacent property. The Contractor shall also indemnify the Owner as provided in the indemnification provision herein. These provisions shall be in addition to any other requirements of the owners of the adjacent property.

Also refer to other sections, including but not limited to, section 01 5000 "Temporary Facilities and Controls".

6.11. Working Evenings and Weekends

Contractor to comply with all applicable rules, regulations, laws, and local ordinances including, without limitation, all noise and light limitations. Refer to paragraph 15.3.

6.12. Cleaning Up

6.12.1. The Contractor shall provide all services, labor, materials, and equipment necessary for protecting the Work, all occupants, furnishings, equipment, and building structure from damage until its completion and final acceptance by Owner. Dust barriers shall be provided to isolate dust and dirt from construction operations. At completion of the Work and portions thereof, Contractor shall clean to the original state any areas beyond the Work area that become dust laden as a result of the Work. The Contractor must erect the necessary warning signs and barricades to ensure the safety of all school and park occupants. The Contractor at all times must maintain good housekeeping practices to reduce the risk of fire damage and must make a fire extinguisher, fire blanket, and/or fire watch, as applicable, available at each location where cutting, braising, soldering, and/or welding is being performed or where there is an increased risk of fire.

6.12.2. Contractor at all times shall keep premises free from debris such as waste, rubbish, and excess materials and equipment caused by the Work. Contractor shall not leave debris under, in, or about the Premises, but shall promptly remove same from the Premises on a daily basis. If Contractor fails to clean up, Owner may do so and the cost thereof shall be charged to Contractor. If Contract is for work on an existing facility, Contractor shall also perform specific clean-up on or about the Premises upon request by the Owner as it deems necessary for the continuing education process. Contractor shall comply with all related provisions of the Project Manual.

6.12.3. If the Construction Manager, Architect, or Owner observes the accumulation of trash and debris, the Owner will give the Contractor a 24-hour written notice to mitigate the condition.

6.12.4. Should the Contractor fail to perform the required clean-up, or should the clean-up be deemed unsatisfactory by the Owner, the Owner will then perform the clean-up. All cost associated with the clean-up work (including all travel, payroll burden, and costs for supervision) will be deducted from the Contract Price, or Owner may withhold those amounts from payment(s) to Contractor.

Also refer to sections including, but not limited to, sections 01 5000 "Temporary Facilities and Controls" and 01 7700 "Closeout Procedures".

7. SUBCONTRACTORS

7.1. Contractor shall provide the Construction Manager with information for all Subcontracts as indicated in the Contractor's Submittals and Schedules Section herein.

7.2. No contractual relationship exists between the Owner and any Subcontractor, supplier, or sub-subcontractor by reason of this Contract.

7.3. Contractor agrees to bind every Subcontractor by terms of Contract as far as those terms are applicable to Subcontractor's work including, without limitation, all provisions and requirements of the Community Workforce Agreement ("CWA"). If Contractor shall subcontract any part of this Contract, Contractor shall be as fully responsible to Owner for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Project Manual are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.

7.4. Owner's consent to, or approval of, or failure to object to, any Subcontractor under this Contract shall not in any way relieve Contractor of any obligations under this Contract and no such consent shall be deemed to waive any provisions of this Contract.

7.5. Contractor is directed to familiarize itself with Sections 4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and to comply with all applicable requirements therein. In addition, Contractor is directed to familiarize itself with Sections 1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and to comply with all applicable requirements therein all including, without limitation, Section 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.

7.6. No Contractor whose Bid is accepted shall, without written consent of the awarding authority and in full compliance with Section 4100, et seq, of the Public Contract Code, including, without limitation, Sections 4107, 4107.5, and 4109 of the Public Contract Code, either:

7.6.1. Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or

7.6.2. Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or

7.6.3. Sublet or subcontract any portion of the Work in excess of one-half of one percent (1/2 of 1%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.

7.7. The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.

7.8. Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.

7.9. Contractor must include in all of its subcontracts the assignment provisions as indicated in the Termination section of these General Conditions.

8. OTHER CONTRACTS/CONTRACTORS

8.1. Owner reserves the right to let other contracts in connection with the Project. Contractor shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of other contractors.

8.2. In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of any other contractor that Contractor encounters while working on the Project.

8.3. If any part of Contractor's Work depends for proper execution or results upon work of any other contractor, the Contractor shall inspect and promptly report to the Owner in writing before proceeding with its Work any defects in any other contractor's work that render Contractor's Work unsuitable for proper execution and results.

Contractor shall be held accountable for damages to Owner for any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all other contractors' work as fit and proper for reception of Contractor's Work, except as to defects that may develop in other contractor's work after execution of Contractor's Work.

8.4. To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the Owner in writing any discrepancy between that executed work and the Contract Documents.

8.5. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by Owner in prosecution of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.

8.6. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. Contractor shall not cause any unnecessary hindrance or delay to the use of the Premises and/or to any other contractor working on the Project. If simultaneous execution of any contract or school operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the Owner of the resolution.

8.7. Construction Managers shall have authority over coordination of the activities of multiple contractors in those cases where the Owner contracts with others for the performance of other work on the Project. (The authority of Construction Manager with respect to coordination of the activities of multiple prime contractors, however, shall not in any manner relieve Contractor of its obligation to other contractors to coordinate its work with other contractors as specified above.) Contractor shall promptly notify Construction Manager in writing when another contractor on this Project fails to coordinate its work with the Work of this Contract.

8.8. Contractor shall suspend any part of the Work herein specified or shall carry on the same in such manner if directed by Construction Manager when such suspension or prosecution is necessary to facilitate the work of other contractors or workers. No damages or claims by Contractor will be allowed therefor if the suspension of work change is due in whole or in part to Contractor's failure to perform its obligation herein specified to coordinate its work with other contractors. If the suspension or work change due in whole or in part the failure of another contractor to coordinate its work with Contractor and other contractors, then resulting damages or claims by contractor will be allowed only to the extent of fault by the owner. The owner reserves the right to back charge Contractor for any damages or claims of other contractors incurred as a result of Contractor's failure to perform its obligations to coordinate with other contractors and utility owners.

8.9. As between the Parties, the City shall assume the responsibility for the timely removal, relocation, or protection of existing main or trunk-line utility facilities on the Project Site that otherwise would interfere with performance of the Work, if such utilities are not identified in the Contract Documents or otherwise by the City. The Contractor shall not be assessed for liquidated damages for delay in completion of the Project, when such delay was caused by the failure of the City to provide for removal or relocation of the existing main or trunkline utility facilities. In accordance with section 4215 of the Government Code, if the Contractor, while performing the Work, discovers any existing main or trunkline utility facilities not identified by the City in the Contract Documents, the Contractor shall immediately provide written notice to the City. The City shall compensate the Contractor for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not identified in the Contract Documents or otherwise by the City with reasonable accuracy, and for equipment on the Project necessarily idled during such work.

9. DRAWINGS AND SPECIFICATIONS

9.1.1. A complete list of all Drawings that form a part of the Contract is to be found as an index on the Drawings themselves.

9.1.2. Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards, unless noted otherwise.

9.1.3. Trade Name or Trade Term. It is not the intention of this Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered a sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.

9.1.4. The naming of any material and/or equipment shall mean furnishing and installing of same, including all incidentals and accessory items thereto and/or labor therefore, as per best practices of the trade(s) involved, unless specifically noted otherwise.

9.1.5. Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict, Contractor shall promptly notify Owner and Architect in writing, and any necessary changes shall be made as provided in the Contract Documents. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. It shall be the responsibility of the Contractor to notify his sub-bidders at the time of request for bids of all paragraphs of the General Conditions, Special Conditions and any parts of other sections of Specifications or Drawings that he, the Contractor, intends to include as a part of the subcontract.

9.1.6. Drawings and Specifications are intended to comply with all laws, ordinances, rules, and regulations of constituted authorities having jurisdiction, and where referred to in the Contract Documents, the laws, ordinances, rules, and regulations shall be considered as a part of the Contract within the limits specified. Contractor shall bear all expense of correcting work done contrary to said laws, ordinances, rules, and regulations.

9.1 Ownership of Drawings

All copies of Plans, Drawings, Designs, Specifications, and copies of other incidental architectural and engineering work, or copies of other Contract Documents furnished by Owner, are the property of Owner. They are not to be used by Contractor in other work and, with the exception of signed sets of Contract Documents, are to be returned to Owner on request at completion of Work, or may be used by Owner as it may require without any additional costs to Owner. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Architect. Owner hereby grants the Contractor, Subcontractors, sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings prepared for the Project in the execution of their Work under the Contract Documents.

9.2 Interpretation of Contract Documents

9.2.1 In case of ambiguity, conflict, or lack of information, Owner will furnish clarifications with reasonable promptness. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities

- A. Contract
- B. Addenda, with those of later date having precedence over those of earlier date.
- C. The Special Conditions
- D. The General Conditions of the Contract for Construction
- E. Division 1 of the Specifications
- F. Drawings and Divisions 2-48 of the Specifications.

In the case of conflicts or discrepancies between Drawings and Divisions 2-48 of the Specifications or within either Document not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation. In general, full size details shall take precedence over scale drawings as to shape and details of construction; specifications shall govern as to materials. Refer to sheet G-A0.05 for further detail.

- 9.2.2** Should any clarification, in the opinion of Contractor, cause an increase in the Contract Price, Contractor may request a change in the Contract Price and/or Contract. Any request for a change shall be according to the applicable procedures indicated herein.
- 9.2.3** Any necessary material, item, piece of equipment or operation not called for, but reasonably implied as necessary for proper completion of the Work, shall be furnished and installed consistent with adjacent or related materials, items or pieces of equipment in accordance with good practice with no added cost.

10 CONTRACTOR'S SUBMITTALS AND SCHEDULES

Contractor's submittals shall comply with the provisions and requirements of the Specifications including, without limitation, Submittals.

10.1 Schedule of Work, Schedule of Submittals, and Schedule of Values

10.1.1 Within **TEN (10)** days after the date of the Notice to Proceed (unless otherwise specified in the Specifications), the Contractor shall prepare and submit to the Owner for review, in a form supported by sufficient data to substantiate its accuracy as the Owner may require:

10.1.2 Preliminary Schedule. A preliminary schedule of construction indicating the starting and completion dates of the various stages of the Work, including any information and following any form as may be specified in the Specifications. Once approved by Owner, this shall become the Construction Schedule. This schedule shall include and identify all tasks that are on the Project's critical path with a specific determination of the start and completion of each critical path task as well as all contract milestones and each milestone's completion date(s) as may be required by the Owner.

Also refer to other sections, including but not limited to, sections 00 31 13 "Preliminary Construction Schedule" and 01 3200 "Construction Progress Documentation".

10.1.3 Preliminary Schedule of Values. A preliminary schedule of values for all of the Work, which must include quantities and prices of items aggregating the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Also refer to other sections, including but not limited to, section 01 2900 "Payment Procedures".

10.1.4 Preliminary Schedule of Submittals. A preliminary schedule of submittals, including Shop Drawings, Product Data, Samples and Mock-ups submittals. Once approved by Owner, this shall become the Submittal Schedule. All submittals shall be forwarded to the Owner by the date indicated on the approved Submittal Schedule, unless an earlier date is necessary to maintain the Construction Schedule, in which case those submittals shall be forwarded to the Owner so as not to delay the Construction Schedule. Also refer to other sections, including but not limited to, section 01 3300 "Submittal Procedures" and 01 3219 "Submittal Schedules, Daily and Field Reports".

10.1.5 Safety Plan. Contractor's Safety Plan specifically adapted for the Project. Contractor's Safety Plan shall comply with the following requirements:

10.1.5.1.1 All applicable requirements of California Division of Industrial Safety ("CalOSHA") and/or by the United States Occupational Safety and Health Administration ("OSHA").

10.1.5.1.2 All provisions regarding Project safety, including all applicable provisions in these General Conditions.

10.1.5.1.3 Contractor's Safety Plan shall be in English and in the language(s) of the Contractor's and its Subcontractors' employees.

10.1.6 Complete Subcontractor List. The name, address, telephone number, facsimile number, California State Contractors License number, DIR number, classification, and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

10.2 Monthly Progress Schedule(s)

Contractor shall provide Monthly Progress Schedule(s) to the Owner. A Monthly Progress Schedule shall update the approved Construction Schedule, showing all work completed and to be completed. The process for Owner acceptance of the Monthly Progress Schedule shall be the same as the process for acceptance of the Baseline Construction Schedule. Contractor shall submit Monthly Progress Schedule(s) with payment applications, when the Owner notifies the Contractor that a Monthly Progress Schedule is required. The Owner reserves the right to request Monthly Progress Schedule(s) at any time. Also refer to other sections, including but not limited to, sections 00 31 13 "Preliminary Construction Schedule" and 01 3200 "Construction Progress Documentation".

10.3 Material Safety Data Sheets (MSDS)

Contractor is required to ensure Material Safety Data Sheets are available in a readily accessible place at the Work Site for any material requiring a Material Safety Data Sheet per the Federal "Hazard Communication" standard, or employees right to know law. The Contractor is also required to ensure proper labeling on substance brought onto the job site and that any person working with the material or within the general area of the material is informed of the hazards of the substance and follows proper handling and protection procedures. Copies of the Material Safety Data Sheets shall also be submitted directly to the Owner (if required by the Owner).

11 SITE ACCESS, CONDITIONS, AND REQUIREMENTS

11.1 Site Investigation

Before bidding on this Work, Contractor shall make a careful investigation of the Site and thoroughly familiarize itself with the requirements of the Contract. By the act of submitting a bid for the Work included in this Contract, Contractor shall be deemed to have made a complete study and investigation, and to be familiar with and accepted the existing conditions of the Site.

11.2 Soils Investigation Report

11.2.1 While a soils investigation report obtained from test holes at Site exists, that report shall be available to the Contractor and shall be a part of this Contract. Any information obtained from that report or any information given on Drawings as to subsurface soil conditions or to elevations of existing grades or elevations of underlying rock is approximate only, and is limited to the specific location. By submitting its bid, Contractor acknowledges that it has made visual examination of Site and has made whatever tests Contractor deems appropriate to determine underground condition of soil.

11.2.2 Contractor agrees that no claim against Owner will be made by Contractor for damages and hereby waives any rights to damages if, during progress of Work, Contractor encounters subsurface or latent conditions at Site materially differing from those shown on Drawings or indicated in Specifications, or for unknown conditions of an unusual nature that differ materially from those ordinarily encountered in the work of the character provided for in Drawings and Specifications, except as indicated in the provisions of these General Conditions regarding trenches, trenching, and/or existing utility lines.

11.2.3 Also refer to other sections including, but not limited to, section 00 31 00 "Geotechnical Data, Existing Conditions & Hazardous Material Surveys" as well as the drawings and technical specifications.

11.3 Access to Work

Owner and its representatives shall at all times have access to Work wherever it is in preparation or progress, including storage and fabrication. Contractor shall provide safe and proper facilities for such access so that Owner's representatives may perform their functions.

11.4 Layout and Field Engineering, Surveys

11.4.1 All field engineering required for layout of this Work and establishing grades for earthwork operations shall be furnished by Contractor at its expense. This Work shall be done by a qualified, California-registered civil engineer approved in writing by Owner and Architect. Any required "Record" drawings of Site development shall be prepared by the approved civil engineer.

11.4.2 The Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the Site and for having satisfied itself as to the conditions under which the Work is to be performed. Owner shall not be liable for any claim for allowances because of Contractor's error or negligence in acquainting itself with the conditions at the Site.

11.4.3 Contractor shall protect and preserve established benchmarks and monuments and shall make no changes in locations without the prior written approval of Owner. Contractor shall replace any benchmarks or monuments that are lost or destroyed subsequent to proper notification of Owner and with Owner's approval.

Contractor shall provide surveys done by a California licensed civil surveyor to determine locations of construction, grading, and site work as required to perform the Work.

11.4.4 Also refer to other sections, including but not limited to, sections 01 7123 "Field Engineering" and 01 7300 "Execution Requirements".

11.5 Utilities

Utilities shall be provided as indicated in the Contract Documents.

11.6 Sanitary Facilities

Sanitary facilities shall be provided as indicated in the Contract Documents.

11.7 Regional Notification Center

The Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the Owner, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless an inquiry identification number has been assigned to the Contractor or any Subcontractor and the Contractor has given the Owner the identification number. Any damages arising from Contractor's failure to make appropriate notification shall be at the sole risk and expense of the Contractor. Any delays caused by failure to make appropriate notification shall be at the sole risk of the Contractor and shall not be considered for an extension of the Contract time.

11.8 Existing Utility Lines

11.8.1 Pursuant to Government Code Section 4215, Owner assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction Site at the time of commencement of construction under this Contract with respect to any such utility facilities that are not identified in the Drawings and Specifications. Contractor shall not be assessed for liquidated damages for delay in completion of the Project caused by failure of Owner or by the owner of a utility to provide for

removal or relocation of such utility facilities. Refer to Contract Documents for Contractor's responsibilities under this Contract.

11.8.2 Locations of existing utilities provided by Owner shall not be considered exact, but approximate within reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care or costs of repair due to Contractor's failure to do so. Owner shall compensate Contractor for the costs of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Drawings and Project Manual with reasonable accuracy, and for equipment necessarily idle during such work.

11.8.3 No provision herein shall be construed to preclude assessment against Contractor for any other delays in completion of the Work. Nothing in this Article shall be deemed to require Owner to indicate the presence of existing service laterals, appurtenances, or other utility lines, within the exception of main or trunk utility lines. Whenever the presence of these utilities on the Site of the construction Project can be inferred from the presence of other visible facilities, such as buildings, meter junction boxes, on or adjacent to the Site of the construction.

11.8.4 If Contractor, while performing Work under this Contract, discovers utility facilities not identified by Owner in Contract Drawings and Project Manual, Contractor shall immediately notify the Owner and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the Owner shall be borne by the Contractor.

11.9 Notification

Contractor understands, acknowledges and agrees that the purpose for prompt notification to the Owner pursuant to these provisions is to allow the Owner to investigate the condition(s) so that the Owner shall have the opportunity to decide how the Owner desires to proceed as a result of the condition(s). Accordingly, failure of Contractor to promptly notify the Owner in writing, pursuant to these provisions, shall constitute Contractor's waiver of any claim for damages or delay incurred as a result of the condition(s).

11.10 Hazardous Materials

Contractor shall comply with all provisions and requirements of the Contract Documents related to hazardous materials including, without limitation, Hazardous Materials Procedures and Requirements. Contractor shall not permit any hazardous material or substance to be brought to or used on the Site except to the extent such hazardous material or substance is necessary to and customarily used in the construction of projects like the Project. Any hazardous material brought or used on the site by the Contractor, any subcontractor, any material supplier, or any entity for whom any of them is responsible, shall be used, stored and disposed of in compliance with all applicable laws related to such hazardous materials or substances. Any damage to the property resulting from the improper storage or use of hazardous materials or substances shall be remedied by the Contractor at its sole cost and expenses in accordance with the applicable laws. The Contractor shall immediately notify the Construction Manager in writing of any release of hazardous materials or substances at the site. In no event, however, shall the Owner have any responsibility for any substance or material that is brought to the site by the Contractor, any subcontractor, any material supplier, or any entity for whom any of them is responsible.

11.11 No Signs

Neither the Contractor nor any other person or entity shall display any signs not required by law or by the Contract Documents at the Site, fences, trailers, offices, or elsewhere on the Site, without specific prior written approval of the Owner.

11.12 Compliance with Federal Aviation Administration (FAA)

The Contractor shall comply with all requirements as described by FAA's Final Determination Forms shown on the Contract Documents (including, but not limited to, sheets G-A0.23 and G-A0.24). The Contractor

shall be responsible for all required coordination, communications and documentation with FAA as required by the Owner.

12 TRENCHES

12.1 Trenches Greater Than Four Feet

In accordance with Public Contract Code Section 7104, if the Work involves digging trenches or other excavations that extend deeper than four feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, provide written notice to the City of any: (i) material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the Project Site differing from those indicated by information about the Project Site made available to the Contractor prior to when the Contractor submitted its proposal for the Work; or (iii) unknown physical conditions at the Project Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract. The City shall promptly investigate any such reported condition and, if warranted, shall issue a Change Order to the Contractor for any extra work or cost not covered by this Contract. In the event of any dispute between the City and the Contractor related to any such condition, the Contractor shall continue with the Work and shall not be excused from completing the Work within the Contract Time; however, the Contractor shall retain any and all rights provided either by law or this Contract that pertain to the resolution of disputes and protests between the Parties.

12.2 Trenches Greater Than Five Feet

Pursuant to Labor Code Section 6705, if the Contract Price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, promptly submit to the Owner and/or a registered civil or structural engineer employed by the Owner or Architect, a detailed Trench Safety plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches. The Trench Safety Plan shall be prepared by a civil or structural engineer, who must certify that the Trench Safety Plan complies with minimum requirements of all applicable Construction Safety Orders of Cal-OSHA. If the Trench Safety Plan varies from the standards established by applicable Construction Safety Orders, the Contractor must obtain Cal-OSHA approval of the Trench Safety Plan. The Contractor shall not commence the excavation of any trench within the scope of this Section until the Contractor has provided (and the City has accepted) the Trench Safety Plan and a copy of the excavator's current and valid Cal- OSHA Construction Activity Permit. Neither anything in this Article nor any review and/or acceptance by the City of any Trench Safety Plan shall be deemed or construed to: (i) impose any tort liability on the City; or (ii) relieve the Contractor from responsibility in connection with the Work for protection of workers and others on, at, or in the vicinity of the Project Site.

12.3 Excavation Safety

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by the Owner or by the person to whom authority to accept has been delegated by the Owner.

12.4 No Tort Liability of Owner

Pursuant to Labor Code section 6705, nothing in this Article shall impose tort liability upon the Owner or any of its employees.

12.5 No Excavation Without Permits

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

12.6 Discovery of Hazardous Waste and/or Unusual Conditions

12.6.1 Pursuant to Public Contract Code section 7104, if the Work involves digging trenches or other excavations that extend deeper than four feet below the Surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the Owner, in writing, of any:

12.6.1.1 Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

12.6.1.2 Subsurface or latent physical conditions at the Site differing from those indicated.

12.6.1.3 Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

12.6.2 The Owner shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work, shall issue a Change Order under the procedures described herein.

12.6.3 In the event that a dispute arises between Owner and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law that pertain to the resolution of disputes and protests.

13 INSURANCE AND BONDS

13.1 Insurance Requirements

After award of contract, the Contractor shall promptly obtain, at its own expense, all the insurance required by this section and shall submit a completed copy of the Certificate of Insurance signed by the Contractor's agent or broker with documents to verify any self-insurance coverage to the Public Works Department for review and approval by the City. **The Certificate of Insurance shall clearly identify the project name and number in the space labeled "Description of Operations/Locations/Special Items" on the form.** The insurance requirements must be met within the same **10-day** period allowed for contract execution as provided in the Directions to Bidders in the proposal.

The Notice to Proceed with the work under this contract will not be issued, and the Contractor shall not commence work, until such insurance has been approved by the City. The Contractor shall not allow any subcontractor to commence work on its subcontract until all similar insurance required of the subcontractor has been obtained. Such insurance shall remain in full force and effect at all times during the prosecution of the work and until the final completion and acceptance thereof.

(1) Workers' Compensation and Employer's Liability Insurance

The Contractor shall take out and maintain during the life of the contract, Statutory Workers' Compensation and Employer's Liability Insurance with limits not less than One Million Dollars (\$1,000,000.00) for all of its employees to be engaged in the work on the project under the Contract.

Should any work be sublet, the Contractor shall require the subcontractor similarly to provide Workers' Compensation and Employer's Liability Insurance, all in strict compliance with State laws and to fully protect the City from any and all claims arising out of occurrences on the work.

(2) Commercial General and Automobile Liability Insurance

The Contractor shall take out and maintain in the name of the Contractor and, as an additional insured, the City, during the life of the Contract, such Commercial General and Automobile Liability Insurance as shall protect the Contractor, the City, its officials, officers, directors, employees and agents, from claims which may arise from operations under this contract, whether such operations be by the Contractor, by the City, its officials, officers, directors, employees and agents, any subcontractors, or by anyone directly or indirectly employed by any of them. Such coverage shall be at least as broad as: Insurance Service Office Commercial General Liability coverage (occurrence Form CG0001) and Insurance Service Office Form Number CA0001 (Ed. 1/87) covering Automobile Liability, Code 1 (any auto). This liability insurance shall include, but shall not be limited to, protection against claims arising from bodily and personal injury and damage to property, resulting from the Contractor's or subcontractor's operations, including the use of owned or non-owned automobiles, products, and completed operations. The amounts of insurance shall not be less than the following:

Commercial General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.

The following endorsements must be attached to the policy:

- (a) If the insurance policy covers on an "accident" or a "claims made" basis, it must be changed to "occurrence."
- (b) The policy must cover Personal Injury as well as Bodily Injury.
- (c) The policy must cover complete contractual liability. Exclusions of contractual liability as to bodily injuries, personal injuries and property damages MUST BE ELIMINATED from the basic policy endorsements. This endorsement may be satisfied by amending the definition of "incidental contract" to include written contract.
- (d) Broad form property damage liability must be afforded. Permission is granted for deductible, which shall not exceed \$10,000 without special approval of the City.
- (e) The City must be named as an additional named insured under the coverage afforded with respect to the work being performed under the contract.
- (f) A certificate shall be provided which states that the coverage is PRIMARY INSURANCE and that no other insurance effected by the City will be called upon to contribute to a loss under this coverage.
- (g) The policy must include a cross liability or severability of interests clause.
- (h) Any failure of the Contractor to comply with the reporting provisions of the policies shall not affect coverage provided to the City, et al.
- (i) Notice of cancellation, non-renewal, reduction in limits, or material change, shall be sent to the City with at least thirty (30) days prior written notice by certified mail.
- (j) Insurance is to be placed with California Admitted Insurers with a Best's rating of no less than A: XI.

Contractor shall require its Subcontractors, if any, to procure and maintain similar Commercial General Liability Insurance and Automobile Liability Insurance with minimum limits equal to the amount required of the Contractor.

(3) Builders Risk Insurance

The Contractor shall effect and maintain, in the name of the Contractor and the City, Builders' Risk "All-Risk" completed value insurance coverage upon the entire project, which is the subject of this

contract, and including completed work and work in progress providing that the insurance premium for this specific requirement is a separate bid item. Such insurance shall include as Additional Named Insureds: the City; the Architect; the Engineer; and its consultants including, but not limited to, Ross Drulis Cusenbery and Kitchell CEM; and each of their officers, employees, and agents and any other persons with an insurable interest designated by the City as an Additional Named Insured, or otherwise establish that such parties already provide the requisite coverage. Such insurance is subject to California Public Contract Code Section 7105 and may have a deductible clause not to exceed \$25,000.

"All Risk" insurance includes all possible liabilities unless a particular liability is expressly excluded. "All Risk" insurance includes earthquake and flood coverage.

Should any such insurance policy be materially changed before final completion of the work, and the Contractor fail to procure other insurance as herein required, immediately, the City may procure such insurance and deduct the cost thereof from any amounts due to the Contractor.

13.1.1 Excess Liability Insurance

13.1.1.1 Contractor shall procure and maintain, during the life of this Contract, Excess Liability Insurance that shall protect Contractor, Owner, State, Construction Manager(s), Project Manager(s), Architect(s) and Project Inspectors and in amounts and including the provisions as set forth in the Supplementary Conditions and/or Special Conditions.

13.1.1.2 **Subcontractor:** Contractor shall require its Subcontractor(s), if any, to procure and maintain similar Excess Liability Insurance with minimum limits equal to the amount required of the Contractor.

13.2 Contract Security - Bonds

13.2.1 Contractor shall furnish two surety bonds issued by a California admitted surety insurer with a current A.M. Best rating not less than "A-, VIII", as follows:

13.2.1.1 Performance Bond: A bond in an amount at least equal to one hundred and ten percent (110%) of Contract Price as security for faithful performance of this Contract.

13.2.1.2 Labor & Materials (Payment) Bond: A bond in an amount at least equal to one hundred and ten percent (110%) of the Contract Price as security for payment of persons performing labor and/or furnishing materials in connection with this Contract.

13.2.2 Cost of bonds shall be included in the Bid and Contract Price.

13.2.3 All bonds related to this Project shall be in the forms set forth in these Contract Documents and shall comply with all requirements of the Contract Documents, including, without limitation, the bond forms.

13.2.4 Also refer to other sections including, but not limited to, section 00 49 00 "Execution of Contract".

14 WARRANTY/GUARANTEE/INDEMNITY

14.1 Warranty/Guarantee

14.1.1 The Contractor shall obtain and preserve for the benefit of the Owner, manufacturers' warranties on all materials, fixtures, and equipment incorporated into the Work. Contractor represents and warrants that it is and will be at all times fully qualified and capable of performing every phase of the Work to complete the Work in accordance with the terms of the Contract Documents. Contractor warrants that all construction work and construction services shall be performed in

accordance with general acceptance professional standards of good and sound construction practices and all requirements of the Contract Documents. Contractor warrants that the Work, including but not limited to each item of materials and equipment incorporated therein, shall be new, shall be of suitable grade of its respective kind for its intended use, shall be free from defects in design, engineering, materials, construction and workmanship, and shall conform in all respects with applicable requirements of federal, state and local laws, licenses, and permits, the Drawings and Project Manual and all descriptions set forth therein, applicable construction code standards, and all other requirements of the Contract Documents. In the event that any warranties set forth in the Project Manual exceed the warranties set forth in this Section in scope or in time, the more extensive warranties shall control.

14.1.2 The Contractor shall obtain and preserve for the benefit of the Owner, manufacturer's warranties on materials, fixtures, and equipment incorporated in the work.

14.1.3 In addition to guarantees required elsewhere and by law, Contractor shall, and hereby does guarantee and warrant all Work furnished on the job against any and all defects for a period of **ONE (1)** year after the later of the following dates:

14.1.3.1 The date of Completion as defined in Civil Code section 9200.

14.1.3.2 Any special requirements set forth in the contract documents.

At the Owner's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within a **ONE (1)** year period from date of Completion as defined above without expense whatsoever to Owner. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within ten (10) days after being notified in writing, Contractor and Surety hereby acknowledge and agree that Owner is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

14.1.4 If, in the opinion of Owner, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to Owner or to prevent interruption of operations of Owner, Owner will attempt to give the notice required above. If Contractor or Surety cannot be contacted or neither complies with Owner's request for correction within a reasonable time as determined by Owner, Owner may, notwithstanding the above provision, proceed to make any and all corrections and/or provide attentions the Owner believes are necessary. The costs of correction or attention shall be charged against Contractor and Surety of the guarantees provided in this Article or elsewhere in this Contract.

14.1.5 The above provisions do not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish to Owner all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by Owner.

14.1.6 Nothing herein shall limit any other rights or remedies available to Owner.

14.1.7 Also refer to other sections including, but not limited to, section 00 65 36 "Guaranty" and 01 7834 "Warranties and Bonds".

14.2 **Indemnity**

14.2.1 The Contractor shall indemnify, defend with legal counsel reasonably acceptable to the Owner, keep and hold harmless the Owner and its consultants, the Architect and its consultants, the Construction Manager and its consultants, separate contractors, and their respective board members, officers, representatives, contractors, volunteers, agents, and employees, in both individual and official capacities ("Indemnitees"), against all suits, claims, damages, losses, and

expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the performance of the Work under this Contract by the Contractor or its Subcontractors (of any tier) to the full extent allowed by the laws of the State of California, and not to any extent that would render these provisions void or unenforceable, including, without limitation, any such suit, claim, damage, loss, or expense attributable to, without limitation, bodily injury, sickness, disease, death, alleged patent violation or copyright infringement, or to injury to or destruction of tangible property (including damage to the Work itself) including the loss of use resulting therefrom, except to the extent caused wholly by the sole negligence, active negligence or willful misconduct of the Indemnitees. This agreement and obligation of the Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity that would otherwise exist as to any party or person described herein. This indemnification, defense, and hold harmless obligation includes any failure or alleged failure by Contractor to comply with any provision of law or the Contract Documents, including, without limitation, any stop notice actions, or liens by the California Department of Labor Standards Enforcement.

- 14.2.2** Contractor's defense obligation is immediate and Owner and other indemnified parties' consent for Contractor's choice of counsel and such consent shall not be unreasonably withheld. Contractor will not consent to the entry of any judgment or enter into any settlement with respect to a claim without the prior written consent of Owner or other indemnified party, as applicable.
- 14.2.3** The defense and indemnity obligations of this Paragraph shall survive Final Completion and termination of this Contract. Contractor's defense and indemnity obligations shall extend to claims arising after the Work is completed and accepted if the claims are related to alleged acts or omissions by Contractor that occurred during the course of the Work.
- 14.2.4** The Contractor shall give prompt notice to the Owner in the event of any injury (including death), loss, or damage included herein. Without limitation of the provisions herein, if the Contractor's agreement to indemnify, defend, and hold harmless the Indemnitees as provided herein against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of any of the Indemnitees shall to any extent be or be determined to be void or unenforceable, it is the intention of the parties that these circumstances shall not otherwise affect the validity or enforceability of the Contractor's agreement to indemnify, defend, and hold harmless the rest of the Indemnitees, as provided herein, and in the case of any such suits, claims, damages, losses, or expenses caused in part by the default, negligence, or act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, and in part by any of the Indemnitees, the Contractor shall be and remain fully liable on its agreements and obligations herein to the full extent permitted by law.
- 14.2.5** In any and all claims against any of the Indemnitees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the Contractor's indemnification obligation herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

15 **TIME**

15.1 **Notice to Proceed**

- 15.1.1** Owner may issue a Notice to Proceed within 45 days from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.
- 15.1.2** In the event that the Owner desires to postpone issuing the Notice to Proceed beyond this 45 day period, it is expressly understood that with reasonable notice to the Contractor, the Owner may postpone issuing the Notice to Proceed. It is further expressly understood by Contractor that

Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed.

- 15.1.3** If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to Contractor, Contractor may terminate the Contract. Contractor's termination due to a postponement shall be by written notice to Owner within ten (10) days after receipt by Contractor of Owner's notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the Owner, the Owner shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement. Should Contractor terminate the Contract as a result of a notice of postponement, Owner shall have the authority to award the Contract to the next lowest responsive responsible bidder.

15.2 **Computation of Time / Adverse Weather**

Refer to other sections including, but not limited to, 00 31 13 "Preliminary Construction Schedule" and 01 3200 "Construction Progress Documentation".

15.3 **Hours of Work**

15.3.1 Sufficient Forces

Contractor and Subcontractors shall continuously furnish sufficient forces to ensure the prosecution of the Work in accordance with the Construction Schedule.

15.3.2 Performance During Working Hours

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the Owner and approval of any required governmental agencies.

Also refer to additional sections including, but not limited to, section 01 1100 "Summary of Work".

15.4 **Progress and Completion**

15.4.1 Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

15.4.2 No Commencement Without Insurance

The Contractor shall not commence operations on the Project or elsewhere prior to the effective date of insurance and bonds. The date of commencement of the Work shall not be changed by the effective date of such insurance. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to Owner claim for damages.

15.5 Progress Schedule

Refer to other sections including, but not limited to, 00 31 13 "Preliminary Construction Schedule" and 01 3200 "Construction Progress Documentation".

15.6 Expeditious Completion

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time.

16 EXTENSIONS OF TIME – LIQUIDATED DAMAGES

16.1 Liquidated Damages

Refer to other sections including, but not limited to, 00 31 13 "Preliminary Construction Schedule" and 01 3200 "Construction Progress Documentation".

16.2 Excusable Delay

Refer to other sections including, but not limited to, 00 31 13 "Preliminary Construction Schedule" and 01 3200 "Construction Progress Documentation".

16.3 Float or Slack in the Schedule

Refer to other sections including, but not limited to, 00 31 13 "Preliminary Construction Schedule" and 01 3200 "Construction Progress Documentation".

17 CHANGES IN THE WORK

17.1 No Changes Without Authorization

17.1.1 There shall be no change whatsoever in the Contract Time, Contract Price, Drawings, Project Manual, or in the Work without an executed written Change Order or a written Construction Directive authorized by the Owner as herein provided. Owner shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Project Manual unless the Owner has authorized the same and the cost thereof has been approved in writing by Change Order or Construction Directive. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order or Construction Directive. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Project Manual.

17.1.2 Contractor shall immediately perform all work that has been authorized by a fully executed Administrative Change Order or Construction Directive. Contractor shall be fully responsible for any and all delays and/or expenses caused by Contractor's failure to expeditiously perform this Work.

17.1.3 Should any Administrative Change Order result in an increase in the Contract Price, the cost of that Administrative Change Order shall be agreed to, in writing, in advance by Contractor and Owner and be subject to the monetary limitations set forth in Public Contract Code section 20118.4. In the event that Contractor proceeds with any change in Work without an Administrative Change Order or Construction Directive executed by the Owner, Contractor waives any claim for additional compensation or time for that additional work.

17.1.4 Contractor understands, acknowledges, and agrees that the reason for Owner authorization is so that Owner may have an opportunity to analyze the Work and decide whether the Owner shall proceed with the Change Order or alter the Project so that a change in Work becomes unnecessary.

17.1.5 Refer to section 01 2600 "Contract Modification Procedures" for further details.

17.2 Architect Authority

The Architect will have authority to order minor changes in the Work not involving any adjustment in the Contract Price, or an extension of the Contract Time, or a change that is inconsistent with the intent of the Contract Documents. This direction can come in the form of a RFI response or a Bulletin in the form of a Architect's Supplemental Instruction (ASI). Also refer to article 1.02 of section 01 2600 "Contract Modification Procedures").

17.3 Administrative Change Orders

17.3.1 The Owner may, at any time, without notice to the surety, by written order designated as an **Administrative Change Order (also referred to as a "Change Order", "ACO" or "CO")**, make any change or modification to the Work or schedule. A Change Order is a written instrument prepared and issued by the Owner and signed by the Owner, the Contractor, the Architect, and approved by the Project Inspector (if necessary), stating their agreement regarding all of the following:

17.3.1.1 A description of a change in the Work;

17.3.1.2 The amount of the adjustment in the Contract Price, if any; and

17.3.1.3 The extent of the adjustment in the Contract Time, if any.

17.3.1.4 All work performed under an Administrative Change Order (ACO) must be authorized by the Owner's written order. No work in excess of that shown on the Drawings shall be done without a written change order. The extra work due to changes or deviations in the scope of work will be performed and paid for at the contract unit prices, on a force account basis or by negotiated price.

17.3.1.5 The ACO form (Exhibit B) attached shall be used for documenting all ACO. The form and all language noted on it shall be considered as part of the contract documents and shall be binding to the contractor. The contractor's proposed amount and time extension for ACO work shall represent the full and complete compensation for the change order, including any and all schedule changes and delays and/or cost impact that may be created by the ACO work.

17.3.1.6 Upon mutual execution of an Administrative Change Order by Contractor and the City of Hayward, Contractor is directed to make changes set forth in the ACO form. Contractor agrees that the net change in the contract sum stipulated in the ACO form shall constitute full compensation, as described under payment in the ACO form, for the work required by the Change Order, including revised work schedules or changes to other contract work. Contractor further agrees that the additional contract time allotted (if any) is sufficient, and that there shall be no further time extensions or delay claims resulting from the Change Order.

17.4 Construction Directives

17.4.1 Refer to section 01 2600 "Contract Modification Procedures".

17.5 Change Order Request

17.5.1 Refer to section 01 2600 "Contract Modification Procedures".

18 REQUEST FOR INFORMATION

18.1 Any Request for Information shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. The Contractor shall make suggestions and interpretations of the issue raised by each Request for Information. A Request for Information cannot modify the Contract Price, Contract Time, or the Contract Documents.

18.2 The Contractor shall be responsible for any costs incurred for professional services that Owner may deduct from any amounts owing to the Contractor, if a Request for Information requests an interpretation or decision of a matter where the information sought is equally available to the party making the request. Owner, at its sole discretion, shall deduct from and/or invoice Contractor for all the professional services arising herein.

18.3 Refer to section 01 3131 "Request for Information" for further details.

19 PAYMENTS

19.1 Contract Price

The Contract Price is stated in the Contract agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

19.2 Applications for Progress Payments

Refer to other sections including, but not limited to, section 01 2900 "Payment Procedures".

20 COMPLETION OF THE WORK

Refer to other sections including, but not limited to, section 01 7700 "Closeout Procedures".

21 FINAL PAYMENT AND RETENTION

Refer to other sections including, but not limited to, section 01 2900 "Payment Procedures" and 01 7700 "Closeout Procedures".

22 UNCOVERING OF WORK

If a portion of the Work is covered without Inspector or Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the Owner, the Project Inspector, or the Architect, be uncovered for the Project Inspector's or the Architect's observation and be replaced at the Contractor's expense without change in the Contract Price or Contract Time.

23 NONCONFORMING WORK AND CORRECTION OF WORK

23.1 Nonconforming Work

23.1.1 Contractor shall promptly remove from Premises all Work identified by Owner as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract Documents without additional expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by any removal or replacement pursuant hereto and/or any delays to the Owner or other Contractors caused thereby.

23.1.2 If Contractor does not remove Work that Owner has identified as failing to conform to the Contract Documents within a reasonable time, not to exceed **FORTY-EIGHT (48)** hours, Owner may remove it and may store any material at Contractor's expense. If Contractor does not pay expense(s) of that removal within ten (10) days' time thereafter, Owner may, upon ten (10) days' written notice, sell any material at auction or at private sale and shall deduct all costs and expenses incurred by the Owner and/or Owner may withhold those amounts from payment(s) to Contractor.

23.2 Correction of Work

23.2.1 Correction of Rejected Work

Pursuant to the notice provisions herein, the Contractor shall promptly correct the Work rejected by the Owner, the Architect, or the Project Inspector as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby.

23.2.2 One-Year Warranty Corrections

If, within one (1) year after the date of Acceptance of the Work or a designated portion thereof, or after the date for commencement of warranties established hereunder, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation hereunder shall survive acceptance of the Work under the Contract and termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

23.2.3 Owner's Rights if Contractor Fails to Correct

If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it after **FORTY-EIGHT (48)** hours written notice, pursuant to the applicable provisions in these General Conditions regarding the Owner's right to perform work.

Also refer to section 2.2.

24 TERMINATION AND SUSPENSION

24.1 Owner's Right to Terminate Contractor for Cause

24.1.1 Grounds for Termination The Owner, in its sole discretion, may terminate the Contract and/or terminate the Contractor's right to perform the work of the Contract based upon the following:

24.1.1.1 Contractor refuses or fails to execute the Work or any separable part thereof with sufficient diligence as will ensure its completion within the time specified or any extension thereof, or

- 24.1.1.2 Contractor fails to complete said Work within the time specified or any extension thereof,
or
- 24.1.1.3 Contractor upon a reasonable basis cannot complete said Work within the time specified
or any extension thereof, or
- 24.1.1.4 Contractor persistently fails or refused to perform Work or provide material of sufficient
quality as to be in compliance with Contract Documents; or
- 24.1.1.5 Contractor files a petition for relief as a debtor, or a petition is filed against the Contractor
without its consent, and the petition not dismissed within sixty (60) days; or
- 24.1.1.6 Contractor makes a general assignment for the benefit of its creditors, or a receiver is
appointed on account of its insolvency; or
- 24.1.1.7 Contractor repeatedly refuses, except in cases for which extension of time is provided, to
supply enough properly skilled workers or proper materials to complete the Work in the time
specified; or
- 24.1.1.8 Contractor fails to make prompt payment to Subcontractors, or for material, or for labor; or
- 24.1.1.9 Contractor disregards laws, or ordinances, or instructions of Owner; or
- 24.1.1.10 Contractor fails to supply labor, including that of Subcontractors, that can work in harmony
with all other elements of labor employed or to be employed on the Work; or
- 24.1.1.11 Contractor or its Subcontractor(s) is/are otherwise in breach, default, or in substantial
violation of any provision of this Contract.
- 24.1.1.12 When a Subcontractor fails to prosecute a portion of the Work in a manner satisfactory to
the City, Contractor shall remove such Subcontractor immediately upon written request of the City,
and shall request approval of a replacement Subcontractor to perform the work in accordance with
Public Contract Code section 4107, at no added cost to the City.

24.1.2 Notification of Termination

- 24.1.2.1 Upon the occurrence at Owner's sole determination of any of the above conditions, Owner
may, without prejudice to any other right or remedy, serve written notice upon Contractor and its
Surety of Owner's termination of this Contract and/or the Contractor's right to perform the work of
the Contract. This notice will contain the reasons for termination. Unless, within three (3) days
after the service of the notice, any and all condition(s) shall cease, and any and all violation(s)
shall cease, or arrangement satisfactory to Owner for the correction of the condition(s) and/or
violation(s) be made, this Contract shall cease and terminate. Upon Determination, Contractor
shall not be entitled to receive any further payment until the entire Work is finished.
- 24.1.2.2 Upon Termination, Owner may immediately serve written notice of tender upon Surety
whereby Surety shall have the right to take over and perform this Contract only if Surety:
 - 24.1.2.2.1 Within three (3) days after service upon it of the notice of tender, gives Owner written notice
of Surety's intention to take over and perform this Contract; and
 - 24.1.2.2.2 Commences performance of this Contract within (three (3) days from date of serving of its
notice to Owner.

24.1.2.3 If Surety fails to notify Owner or begin performance as indicated herein, Owner may take over the Work and execute the Work to completion by any method it may deem advisable at the expense of Contractor and/or its Surety. Contractor and/or its Surety shall be liable to Owner for any excess cost or other damages the Owner incurs thereby. Time is of the essence in this Contract. If the Owner takes over the Work as herein provided, Owner may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plan, and other property belonging to Contractor as may be on the Site of the Work, in bonded storage, or previously paid for.

24.1.3 Effect of Termination

24.1.3.1 Contractor shall, only if ordered to do so by the Owner, immediately remove from the Site all or any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The Owner retains the right, but not the obligation, to keep and use any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The Contractor and its Surety shall be liable upon the performance bond for all damages caused the Owner by reason of the Contractor's failure to complete the Contract.

24.1.3.2 In the event that the Owner shall perform any portion of, or the whole of the Work, pursuant to the provisions of the General Conditions, the Owner shall not be liable nor account to the Contractor in any way for the time within which, or the manner in which, the Work is performed by the Owner or for any changes the Owner may make in the Work or for the money expended by the Owner in satisfying claims and/or suits and/or other obligations in connection with the Work.

24.1.3.3 In the event that the Contract is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor.

24.1.3.4 If the expense to the Owner to finish the Work exceeds the unpaid Contract Price, Contractor and Surety shall pay difference to Owner within twenty-one (21) days of Owner's request.

24.1.3.5 The Owner shall have the right (but shall have no obligation) to assume and/or assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under its subcontracts with any or all Subcontractors. In the event of an assumption or assignment by the Owner, no Subcontractor shall have any claim against the Owner or third party for Work performed by Subcontractor or other matters arising prior to termination of the Contract. The Owner or any third party, as the case may be, shall be liable only for obligations to the Subcontractor arising after assumption or assignment. Should the Owner so elect, the Contractor shall execute and deliver all documents and take all steps, including the legal assignment of its contractual rights, as the Owner may require, for the purpose of fully vesting in the Owner the rights and benefits of it Subcontractor under Subcontracts or other obligations or commitments. All payments due the Contractor hereunder shall be subject to a right of offset by the Owner for expenses and damages suffered by the Owner as a result of any default, acts, or omissions of the Contractor. Contractor must include this assignment provision in all of its contracts with its Subcontractors.

24.1.3.6 The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to Owner.

24.1.4 Emergency Termination of Public Contracts Act of 1949

24.1.4.1 This Contract is subject to termination as provided by Sections 4410 and 4411 of the Government Code of the State of California, being a portion of the Emergency Termination of Public Contracts Act of 1949.

24.1.4.1.1 Section 4410 of the Government Code states:

In the event a national emergency occurs, and public work, being performed by contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the public agency and the contractor may, by written agreement, terminate said contract.

24.1.4.1.2 Section 4411 of the Government Code states:

Such an agreement shall include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case.

24.1.4.2 Compensation to the Contractor shall be determined at the sole discretion of Owner on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the Owner's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted schedule of values, that price shall control. The Owner, at its sole discretion, may adopt the Contract Price as the reasonable value of the work done or any portion thereof.

24.2 Termination of Contractor for Convenience

24.2.1 Owner in its sole discretion may terminate the Contract upon three (3) days written notice to the Contractor. Under a termination for convenience, the Owner retains the right to all the options available to the Owner if there is a termination for cause. In case of a termination for convenience, the Contractor shall have no claims for compensation against the Owner except:

24.2.1.1 The actual cost for labor, materials, and services satisfactorily performed and in place that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise, and

24.2.1.2 Five percent (5%) of the total actual cost of work performed as of the date of termination. This five percent (5%) amount shall be full compensation for all Contractors' and its Subcontractor(s)' mobilization and/or demobilization costs, overhead and profit on costs in Section 24.2.1.1 and any anticipated loss profits resulting from termination of the Contractor for convenience.

24.3 Suspension of Contract for Convenience The Owner may, at any time, from time to time, without cause, order Contractor in writing to suspend, delay or interrupt Work in whole or in part for such period of time as the Owner may determine. A Change Order will be issued to cover any adjustments of the Contract Sum or the Contract Time necessarily caused by such suspension. No adjustment shall be made to extent: (a) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible; or (b) that an equitable adjustment is made or denied under another provision of Contract; or (c) that the suspension of Work was the direct or indirect result of Contractor's or its subcontractors failure to perform any of its obligations hereunder

25 CLAIMS AND DISPUTES

25.1 Performance During Claim Process

Notwithstanding the submission of a Notice of Potential Claim or presentation of a Claim pursuant to this Section, the Contractor shall continue to perform its Work under the Contract, including any disputed work that is the subject of a Notice of Potential Claim or Claim, and shall not cause a delay of the Work during any dispute, negotiation, mediation, or arbitration proceeding, except by written agreement by the Owner.

25.2 Definition of Claim

- 25.2.1** A Claim means a separate demand by the Contractor sent to the Construction Manager by registered mail or certified mail with return receipt requested, for one or more of the following:
- 25.2.1.1** An extension of the Contract Time, including, without limitation, for relief from damages or penalties for delay assessed by Owner.
 - 25.2.1.2** Payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for, or to which the Contractor is not otherwise entitled.
 - 25.2.1.3** Payment of money or a request for an extension of Contract Time that the Owner disputes is owing, including a rejected PCO or disputed Construction Directive.

25.3 Notice of Potential Claim, Claim Presentation

- 25.3.1** As a condition to submitting a Claim for an increase in the Contract Price or Contract Time for any reason including, without limitation, the acts of Owner or its agents, Contractor shall, within five (5) days after the first event giving rise to the Potential Claim, submit a written Notice of Potential Claim to the Construction Manager. The Notice of Potential Claim shall describe the nature, circumstances and extent of the Claim, which must remain consistent. Failure to submit a Notice of Potential Claim within the time period specified herein shall constitute a waiver of the right to submit a Claim for the disputed work.
- 25.3.1.1** For each potential claim, Contractor shall assign an identification number determined by chronological sequencing and the first date of the potential claim. The identification number shall be included in the Notice of Potential Claim and any corresponding Claim filed for the disputed work.
- 25.3.2** Upon submission of the Notice of Potential Claim the Contractor shall proceed with the disputed work unless directed otherwise by the Project Manager. Within 10 days of submitting the Notice of Potential Claim the Contractor shall provide the following additional supplemental information: (1) the complete nature and circumstances causing the potential claim; (2) the contract specifications supporting the basis of a claim; (3) Estimated claim cost and an itemized breakdown of the individual costs stating how the estimate was determined; (4) time impact analysis. The Project Manager will provide a response to the Notice of Potential Claim within 10 days of receiving the supplemental information.
- 25.3.3** If the disputed issue(s) is not resolved within 45 days of the date of submission of the Notice of Potential Claim, the Contractor may pursue the disputed issue(s) by filing a Claim under this Section. Contractor's Claim for compensation or an extension of time shall be forfeited and waived, and Contractor shall not be entitled to any compensation or a time extension on account of the matter unless Contractor fully complies with this Section.
- 25.3.4** The Claim shall be submitted to the Project Manager and include a written narrative of the rationale for the request and the detail of the amount and /or time requested. The attention of the Contractor is drawn to Government Code section 12650, et seq. regarding penalties for false claims.
- 25.3.4.1** The Claim shall include all of the following supporting information, which shall constitute the Claim Record:
- 25.3.4.1.1** Detailed factual accounts of the events causing the claim, including pertinent dates, locations, and work items affected by the Claim.
 - 25.3.4.1.2** Contract documents supporting the Claim and a statement of the reasons these parts support the Claim.
 - 25.3.4.1.3** Itemized cost breakdown if a payment adjustment is requested. Segregate costs into the following categories: (1) Labor, including individuals, classifications, regular and overtime hours worked, and dates worked; (2) Materials, including invoices, purchase orders,

- location of materials either stored or incorporated into the work; and dates materials were transported to the job site or incorporated into the work; (3) Equipment, including detailed descriptions, including make, model, and serial number, hours of use, dates of use, equipment rental rates in effect when the affected work related to the Claim was performed.
- 25.3.4.1.4 Detailed account of the time impact if a time adjustment is requested including: dates for the requested time; reasons for a time adjustment; contract documentation supporting the requested time adjustment; time impact analysis, which must demonstrate entitlement to a time adjustment.
 - 25.3.4.1.5 Identification and copies of your documents and copies of communications supporting the potential claim, including certified payrolls, bills, canceled checks, job cost reports, payment records, and rental agreements
 - 25.3.4.1.6 Relevant information, references, and arguments that support the Claim
- 25.3.5** Contractor, under penalty of perjury, shall submit with the Claim a certification by Contractor and its Subcontractor(s), as applicable, that:
- 25.3.5.1** The Claim is made in good faith; and
 - 25.3.5.2** Supporting data are accurate and complete to the best of Contractor's and/or Subcontractor's knowledge and belief; and
 - 25.3.5.3** The amount requested accurately reflects the Contract adjustment for which Contractor believes the Owner is liable.
- 25.3.6** An individual or officer who is authorized to act on Contractor's behalf shall execute the certification. Failure to certify a Claim under penalty of perjury shall render the Claim a nullity and the underlying claim waived by the Contractor.
- 25.3.7** The Contractor shall bind all its Subcontractors and suppliers to the provisions of this section and will hold the Owner harmless against disputes and Claims by Subcontractors, material persons, or suppliers not in compliance with this Section.

25.4 **Claim Resolution**

- 25.4.1** Upon receipt of a Claim pursuant to this section, the Owner shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Upon receipt of a Claim, the Owner and Contractor may, by mutual agreement, extend the time period provided in this subdivision.
- 25.4.2** If the Owner needs approval from its governing body to provide the Contractor a written statement identifying portion and the undisputed portion of the Claim, and the Owner does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim sent by registered mail or certified mail, return receipt requested, the Owner shall have up to three days following next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.
- 25.4.3** Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the Owner issues its written statement. If the Owner fails to issue a written statement, Section 25.4.7 shall apply.
- 25.4.4** If the Contractor disputes the Owner's written response, or the Owner fails to respond to a Claim issued pursuant to this section within the time prescribed, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of

a demand in writing sent by registered mail or certified mail, return receipt requested, the Owner shall schedule a meet and confer conference within 30 days for settlement of the dispute.

- 25.4.5** Within 10 business days following the conclusion of the meet and confer conference, if the Claim or and portion of the Claim remains in dispute, the Owner shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the Owner issues its written statement. Any disputed portion of the Claim as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the Owner and the Contractor sharing the associated costs equally. The Owner and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside this section.
- 25.4.5.1 If the parties so agree, a mediator may hear and facilitate more than one claim or dispute. All mediation or other dispute proceedings shall be subject to the California Evidence Code on mediation confidentiality. The mediator(s) and/or other dispute resolution neutrals, shall at all times be neutral, free from conflicts of interest, have not represented or been engaged by the Contractor or Owner in any capacity in the prior 10 years. Under no circumstances may mediators or dispute resolution neutrals be compelled to testify in any legal proceedings.
- 25.4.6** For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.
- 25.4.7** Failure by the Owner to respond to a Claim from the Contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the Claim being deemed rejected in its entirety. A Claim that is denied by reason of the Owners failure to have responded to a Claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.
- 25.4.8** Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.
- 25.4.9** If a subcontractor or a lower tier subcontractor lacks legal standing to assert a Claim against the Owner because privity of contract does not exist, the Contractor may present the Claim to the Owner on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the Contractor present a Claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the Claim be presented to the Owner shall furnish reasonable documentation to support the Claim. Within 45 days of receipt of this written request, the Contractor shall notify the subcontractor in writing as to whether the Contractor presented the Claim to the Owner and, if the original Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.
- 25.4.10** Following the mediation, if the Claim or any portion of it remains in dispute, the Contractor must file a Government Code Claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions the running of the time within which a Section 910 Government Code Claim must be filed, shall be tolled from the time the Contractor submits its

written Claim pursuant to this Section until the time the Claim is denied, including any period of time utilized by the mediation. Contractor's attention is directed to the following requirements:

- 25.4.10.1 The Claim must be filed with the City Clerk or other statutory agent for the City Council. Delivery to a member of City staff is insufficient.
 - 25.4.10.2 The Claim must identify the specific disputed claim or claims for which Contractor intends to pursue litigation, and the date of completion of statutory and contractual claim procedures that apply to the claim,
 - 25.4.10.3 The Claim must identify the persons at the City responsible for administration of the claim(s), the claim resolution procedures, and attach all written decisions thereon.
 - 25.4.10.4 The Claim must designate the contact person and contact information for Contractor in the event the City performs further investigations.
 - 25.4.10.5 The Claim shall not, however, identify the name of the mediator(s) who administered the required mediations
- 25.4.11** Notification of Third Party Claims. Pursuant to Public Contract Code Section 9201, the Owner shall provide the Contractor with timely notification of the receipt by Owner of any third party claim relating to the Contract, and the Owner may charge back to the Contractor the cost of any such notification.

26 **NON-DISCRIMINATION**

- 26.2.1** Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, or physical handicap in the performance of this Contract and to comply with the provisions of the California Fair Employment and Housing Act as set forth in Part 2.8 of Division 3 of the California Government Code, commencing at Section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246, and all administrative rules and regulations found to be applicable to Contractor and Subcontractor.
- 26.2.2** Special requirements for Federally Assisted Construction Contracts: During the performance of this Contract, Contractor agrees to incorporate in all subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.
- 26.2.3** City of Hayward Nondiscriminatory Employment Practices Provision

In the performance of this contract, the Contractor or subcontractor agrees as follows:

A) NONDISCRIMINATION — GENERAL - The Contractor or subcontractor shall not discriminate against any applicant for employment or employee on the grounds of race, color, religion, national origin, sex, age, or disability. The Contractor or subcontractor will take affirmative action to ensure that its recruitment, selection, and evaluation practices do not discriminate against any applicant for employment or employee. The Contractor or subcontractor shall also ensure that its personnel policies, practices and procedures, including, but not limited to, the transfer, promotion, demotion, suspension, layoff or termination, rates of pay and other forms of compensation, and the selection of training programs, apprenticeship, and on-the-job training do not discriminate against any employee. The Contractor or subcontractor shall post in conspicuous places that are accessible to applicants for employment and employees notices setting forth this Nondiscriminatory Employment Practices Provision.

B) RECRUITMENT

- 1. Non-union employees. - Advertising placed with any media shall include the notation, "An Equal Opportunity Employer." Advertisements shall be placed with media having large circulation among minority groups or at school placement centers having large minority student enrollments. The Contractor or subcontractor will send to each source of employee referrals, other than labor unions or workers' representatives, a notice, in such form and content as shall be furnished or

approved by the City, advising said source or employee referrals of its commitments under Chapter 2, Article 7, "Nondiscriminatory Employment Practices by City Contractors" of the Hayward Municipal Code, and shall post copies of the notices in conspicuous places available to employees and applicants for employment.

Recruitment of non-union employees shall, to the maximum extent possible, utilize the services of minority organizations likely to be referral sources for minority group employees.

2. Union employees. - Union employees shall be recruited in accordance with applicable labor agreements. The Contractor or subcontractor shall send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, in such form and content as shall be furnished or approved by the City, advising said labor union or workers' representatives of its commitments under Chapter 2, Article 7, "Nondiscriminatory Employment Practices by City Contractors" of the Hayward Municipal Code, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The Contractor or subcontractor agrees to seek the inclusion in all union agreements to which it is a party, clauses prohibiting discrimination based upon race, color, national origin, religion, sex, age or disability. To the maximum extent consistent with applicable labor agreements, the Contractor or subcontractor will attempt to recruit applicants without regard to race, color, national origin, religion, sex, age, or disability.

C) EQUAL EMPLOYMENT OPPORTUNITY OFFICER - The Contractor or subcontractor shall designate one of its management employees as its Equal Employment Opportunity Officer and assign such officer the responsibility and authority to administer and promote an active program to put the Contractor's or subcontractor's nondiscriminatory employment practices commitment into practice.

D) ACCESS TO RECORDS - The Contractor or subcontractor shall permit access during normal business hours to its records of employment, employment advertisements, completed application forms, and other pertinent data and records when requested to do so by the City Manager or any representative of the fair Employment Practices Commission of the State of California.

E) COMPLIANCE REVIEW PROCEDURES

1. The Contractor or subcontractor shall, upon request of the City Manager, submit its official payroll records together with a monthly cumulative summary of all employee hours worked in performance of its contract with or on behalf of the City identified as to minority status.

2. The Contractor or subcontractor shall submit to a formal, thorough review of its records, books, reports, and accounts concerning its employment practices for the purpose of determining whether they are nondiscriminatory. This review will be performed at intervals during the performance of the contract as may be specified by the City Manager. Each review shall be followed within thirty (30) days by either a written notice to the Contractor or subcontractor that it is in apparent compliance with the Nondiscriminatory Employment Practices Provision of its contract or by a citation of apparent deficiency, summary of findings, and a statement of remedial commitment for signature by the Contractor. If the Contractor or subcontractor fails to meet the commitments it has made in executing such statement, the City Manager shall issue a notice of intent to initiate an action against the Contractor or subcontractor with the Fair Employment Practices Commission for willful violation of the Nondiscriminatory Employment provision and the California Fair Employment Practices Act in not less than thirty (30) days of such notice of intent.

F) VIOLATION - The City Manager shall deem a finding of willful violation of the Nondiscrimination Employment Practices provision and the California Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practices Commission that it has investigated and determined that the Contractor or subcontractor has violated the Fair Employment Practices Act and has issued an order under Labor Code Section 1426, which has

become final, or obtained relief under Labor Code Sections 1429 and 1429.1, or an appropriate federal commission or agency, or a court of the State of California, or if the United States Government finds, in any action or proceeding to which the Contractor or subcontractor is a party, that it discriminated against employees or applicants for employment in the performance of this contract. Upon receipt of such notice or final judgment, the City Manager shall notify the Contractor or subcontractor that unless it demonstrates to the satisfaction of the City Council within a stated reasonable period that the violation has been corrected, said Contractor or subcontractor shall be subject to the remedies hereinafter provided.

G) REMEDIES FOR WILLFUL VIOLATION - The Contractor or subcontractor agrees that a finding of willful violation of the California Fair Employment Practices Act or of this Nondiscriminatory Employment Practices Provision shall be regarded by the City Council as a basis for determining whether or not it is a responsible bidder as to future contracts for which such Contractor or subcontractor may submit bids. The Contractor or subcontractor further agrees that such disqualification by said City Council shall remain in effect for one year or until it demonstrates to the satisfaction of the City Manager that its employment practices are in conformity with the nondiscrimination provisions of the article.

The Contractor or subcontractor further agrees that the Contractor or subcontractor shall, as a penalty to the City of Hayward, forfeit for each calendar day or portion thereof an amount not to exceed \$250 or one percent of the total contract amount, whichever is greater. Such penalty may be deducted from any sums due to the Contractor or subcontractor or recovered by the City through maintenance of an action in any court of competent jurisdiction.

Prior to making any determination with respect to reinstatement of a Contractor or subcontractor as a responsible bidder, the City Council may refer the matter to the Human Relations Commission of the City of Hayward for a report and recommendation. The Contractor or subcontractor agrees to cooperate to the fullest extent with said Human Relations Commission in its exercise of the authority here conferred, including, but not limited to, promptly furnishing reports requested by the commission's review of matters relating to such reinstatement.

City of Hayward Resource Lists for Labor, Consultants, and Contractors

RESOURCE LIST FOR MINORITY/WOMEN LABOR SOURCES

Spanish Speaking Citizens Foundation
1900 Fruitvale Avenue, Suite 2A
Oakland, CA 94601
Phone: (510) 261-7839

Vallecitos Center for Employment Training
597 C Street
Hayward, CA 94541
Phone: (510) 537-8400

Bay Area Urban League
2201 Broadway
Oakland, CA 94612
(510) 271-1846

RESOURCE LIST FOR CONSULTANTS

Yemma Consulting Engineers
P.O. Box 7326
Oxnard, CA 93031-7326
(805) 339-9661

Lee Incorporated
1153 Bordeaux Drive, Suite 103
Sunnyvale, CA 94089
(408) 734-2556

Resna Industries, Inc.
42501 Albrae Street
Fremont, CA 94538
(510) 440-3300

RESOURCE LIST FOR LOCATING DBE/WBE CONTRACTORS

The following listing is provided to assist the bidder in locating DBE/WBE contractors for the project.

CALTRANS
Materials Operation Branch, Publication Distribution Unit,
1900 Royal Oak Drive,
Sacramento, CA 95815
Phone (916) 445-3520
<http://www.dot.ca.gov/hq/bep/index.htm>

Department of General Services
Office of Small Business Certification & Resource
1631 I Street, Second Floor
Sacramento, CA 95814-2016
Phone: (916) 322-5060
Fax: (916) 422-7855

The County of Alameda
Small, Local & Emerging Business Program
1401 Lakeside Drive
Oakland, CA 94612
Phone: (510)-208-9711
Attn: Linda Moore
<http://www.co.alameda.ca.us/gsa/sleb/index.shtml>

City and County of San Francisco
Human Rights Commission
25 Van Ness Avenue, Suite 800
San Francisco, CA 94102
Phone (415) 252-2500

City of Oakland
250 Frank H. Ogawa Plaza, Suite 3341
Oakland, CA 94612
Phone (510) 238-6418
Fax: (510) 238-3363

Golden Gate Bridge Transportation District
Diversity Program Office
P. O. Box 900

Presidio Station
San Francisco, CA 94129
Phone: (415) 257-4536
Fax: (415) 257-4555

27 **MISCELLANEOUS**

27.1 **Assignment of Antitrust Actions**

27.1.1 Section 7103.5(b) of the Public Contract Code states:

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

27.1.2 Section 4552 of the Government Code states:

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

27.1.3 Section 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

27.1.4 Section 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

27.1.5 Under this Article, "public purchasing body" is Owner and "bidder" is Contractor.

27.2 **Excise Taxes**

If, under Federal Excise Tax Law, any transaction hereunder constitutes a sale on which a Federal Excise Tax is imposed and the sale is exempt from such Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, Owner, upon request, will execute documents necessary to show (1) that Owner is a political subdivision of the State for the purposes of such exemption, and (2) that the sale is for the exclusive use of Owner. No Federal Excise Tax for such materials shall be included in any Contract Price.

27.3 Taxes

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with Section 7051 of the Revenue and Taxation Code; Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

27.4 Shipments

All shipments must be F.O.B. destination to Site or sites, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage, or insurance. The total Contract Price shall be all inclusive (including sales tax) and no additional costs of any type will be considered.

27.5 Labor First Aid

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.) and the California Occupational Safety and Health Act of 1973 (8 Cal. Code of Regs., §1 et seq.).

-END OF DOCUMENT-

00 73 00 - SPECIAL CONDITIONS

1. Archaeological Discoveries

If archaeological materials, including but not limited to human skeletal material and disarticulated human bone, are discovered at the job site, protect and leave undisturbed and in place archaeological materials in accordance with the following codes and this Project Manual:

1. California Public Resources Code, Division 5, Chapter 1.7 § 5097.5
2. California Public Resources Code, Division 5, Chapter 1.75 § 5097.98 and § 5097.99
3. California Administrative Code, CCR Title 14 § 4308
4. California Penal Code, Part 1, Title 14 § 622-1/2
5. California Health and Safety Code, Division 7, Part 1, Chapter 2, § 7050.5

Archaeological materials are the physical remains of past human activity and include historic-period archaeological materials and prehistoric Native American archaeological materials. Nonhuman fossils are not considered to be archaeological except when showing direct evidence of human use or alteration or when found in direct physical association with archaeological materials as described in these Project Manual.

Historic-period archaeological materials include cultural remains beginning with initial European contact in California, but at least fifty (50) years old. Historical archaeological materials include:

1. Trash deposits or clearly defined disposal pits containing tin cans, bottles, ceramic dishes, or other refuse indicating previous occupation or use of the site
2. Structural remains of stone, brick, concrete, wood, or other building material found above or below ground or
3. Human skeletal remains from the historic period, with or without coffins or caskets, including any associated grave goods

Prehistoric Native American archaeological materials include:

1. Human skeletal remains or associated burial goods such as beads or ornaments
2. Evidence of tool making or hunting such as arrowheads and associated chipping debris of fine-grained materials such as obsidian, chert, or basalt
3. Evidence of plant processing such as pestles, grinding slabs, or stone bowls
4. Evidence of habitation such as cooking pits, stone hearths, packed or burnt earth floors or
5. Remains from food processing such as concentrations of discarded or burnt animal bone, shellfish remains, or burnt rocks used in cooking

Immediately upon discovery of archaeological materials, stop all work within a 60-foot radius of the archaeological materials and immediately notify the Owner. Archaeological materials found during construction are the property of the State. Do not resume work within the 60-foot radius of the find until the Owner gives you written approval. If, in the opinion of the Owner, completion of the work is delayed or interfered with by reason of an archeological find or investigation or recovery of archeological materials, you will be compensated for resulting losses and an extension of time will be granted in the same manner as provided for in these Contract Documents.

The City of Hayward may use other forces to investigate and recover archaeological materials from the location of the find. When ordered by the Owner furnish labor, material, tools and equipment, to secure the location of the find, and assist in the investigation or recovery of archaeological materials and the cost will be paid for as extra work as provided in these Contract Documents.

Full compensation for immediately notifying the Owner upon discovery of archaeological materials and leaving undisturbed and in place archaeological materials discovered on the job site shall be considered as included in the contract price paid for various items of work involved and no additional compensation will be allowed therefor.

2. Sound Control Requirements

The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract.

Construction Noise Management Plan shall be prepared by the Contractor and implemented. Such plan must be approved by the City prior to issuance of any construction permit and shall contain, at minimum, a listing of construction operations hours complying with the City approved construction hours and construction noise reduction measures including, but not limited to the following:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.
- Turn off idling noise-generating heavy equipment, vehicles, etc. when not in use.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all project construction.
- Designate a "disturbance coordinator/project manager" at the City of Hayward who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem, and ensure noise levels do not exceed noise ordinance standards.

In accordance with Chapter 4, Article 1, Section 4-1.02 "Unreasonable Noises", of the City of Hayward Municipal Code, the noise level from the Contractor's operations, in or abutting residential areas shall not exceed six (6) dba above the ambient noise level measured at the nearest property line or right of way line before the hour of 7:00 a.m. and after the hour of 7:00 p.m. daily, except Sundays and holidays. On Sundays and holidays, the above restrictions shall apply before the hour of 10:00 a.m. and after the hour of 6:00 p.m. This requirement shall not relieve the Contractor from responsibility for complying with any other noise level regulations.

Said noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

The Contractor's attention is also directed to the requirements for contractor's operating hours summarized in 15.3 "Hours of Work," of section 00 7213 "General Conditions".

3. Air Quality Requirements

Air pollution mitigation plan shall be prepared by the Contractor for approval by the City and Bay Area Air Quality Management District (BAAQMD) and shall be secured before starting any construction, grading or material hauling for the project site. The approved plan shall be implemented throughout the duration of the project construction. Dust mitigation plan must specify practices which would ensure that no equipment or operation emits dust and air pollutants

exceeding the permitted limits. The project shall also be subject to the following construction management practices:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City of Hayward regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.

4. Hazardous Material

- A. Discovery of Potentially Hazardous Materials or Vessels/Containers: The Hayward Fire Department's Hazardous Materials Office shall be notified immediately at (510) 583-4900 if hazardous materials are discovered during demolition or during grading. These shall include, but shall not be limited to, actual/suspected hazardous materials, underground tanks, vessels that contain or may have contained hazardous materials.
- B. Use of Hazardous Materials or Generation of Hazardous Waste: During construction, hazardous materials used and hazardous waste generated shall be properly managed and disposed.
- C. Hazardous Materials over the Maximum Allowable Quantities (MAQs): Quantities of hazardous materials/ waste shall not be stored and used in amounts greater than the maximum allowable quantities (MAQs) in the 2016 California Fire Code as adopted by the City of Hayward.
- D. Flammable and Combustible Liquid Storage and Use: The storage and use of flammable and combustible liquids shall meet the requirements of Chapter 57 of the 2016 California Fire Code as adopted by the City of Hayward.
 1. Flammable Liquid Storage Cabinets shall be provided for safe storage of flammable liquids.
 2. Liquefied Petroleum Gas - The Storage and Use Liquefied Petroleum Gas (LPG) and associated equipment shall be per Chapter 61 of the 2016 California Fire Code as adopted by the City of Hayward and NFPA 58.
 3. Tanks shall be properly anchored per the California Building Code and shall be provided approved vehicle impact protection. Per 312 of the 2016 California Fire Code. Smaller containers of LPG shall also be provided adequate protection to prevent vehicle impact and protection of valves.
- E. Spill Controls and Secondary Containment shall be required for hazardous materials.
- F. The storage and use of hazardous materials shall meet the requirements of Chapter 50 of the 2016 California Fire Code as adopted by the City of Hayward.
- G. All containers shall be properly identified and labeled. Signage stating "No smoking" –No open flame within 25 feet shall be posted at the entrance of flammable storage areas.
- H. Areas with special hazards shall be adequately labeled indicating the hazard and safe locations. To assist employees, visitors, and emergency responders.

5. Nuclear-Free Hayward

Contractor agrees to comply with the requirement imposed by City Ordinance No. 87-024 C.S., establishing a "Nuclear Free Hayward." Proposal page P-9, "AFFIRMATION OF NON-INVOLVEMENT IN DEVELOPMENT OR PRODUCTION OF NUCLEAR WEAPONS," shall be executed by the Contractor and submitted with the proposal. Failure to execute and submit page P-9 with the proposal may be considered as grounds for rejection of the bid.

6. Migratory Bird Treaty Act

The Contractor shall know and comply with the Federal Migratory Bird Treaty Act recommend to verify all USC & Title Codes, Sections (16 U.S.C. 703 et seq.), the Bald Eagle Protection Act of 1940, as amended (16 U.S.C. 668), Title 50 Code of Federal regulations part 10, California Department of Fish and Wildlife? Code Sections 3503, 3513, and 3800, and Federal and California Endangered Species Acts.

Provisions of these regulations provide protection for birds and their parts, including eggs, nests (occupied and unoccupied), and feathers.

The Bald Eagle Protection Act provides for the protection of Bald and Golden eagles by prohibiting the taking of occupied and unoccupied nests, eggs, feathers, or trees in the vicinity of nests, Take is defined as to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. Exclusion techniques described later in this section shall not be used for Bald or Golden eagles.

The nesting period for migratory birds is between February 1 and September 1. Areas subject to nesting by birds include, but are not limited to structures, trees, brush, and grassy areas.

The Contractor shall provide the Owner a separate written notice fifteen (15) calendar days prior to the start of any work during the nesting period. The Contractor shall provide separate updates on the planned work areas every fifteen (15) calendar days between February 1 and September 1.

Tree removal or clearing and grubbing shall not commence in an area until the Contractor receives approval from the Owner.

The Contractor shall hire a qualified biologist to conduct an initial nesting survey 15 days prior to the start of construction and will conduct additional nesting surveys during construction, as required.

When work occurs during the nesting period, the Contractor shall remove unoccupied nests, not protected by the Bald Eagle Protection Act, from all affected structures to remain through any portion of the construction period.

The Contractor shall use exclusion techniques, approved by the Owner, to prevent migratory birds from nesting on the ground, on structures, or in trees, shrubs, or other vegetation within the project limits. Exclusion techniques may include, but are not limited to:

1. Clearing and grubbing areas required by the contract.
2. Tree removal required by the contract.
3. Netting of structures using heavy delta knotless netting, thirteen (13) mm square mesh.
4. Mechanical removal of:
 - a. Nests outside of the nesting period.
 - b. Nests that do not have eggs or young birds present during the nesting period.

The Contractor shall implement the approved exclusion techniques immediately after the approval of the contract, or as directed by the Owner.

Damaged netting shall be repaired or replaced the same day the damage occurs.

If evidence of bird nesting is discovered or when a bird is injured or killed as a result of construction activity, immediately stop work within three hundred (300) feet of the nest and notify the Owner. Do not resume work until the Owner provides written notification that work may resume at that location. Further work, actions, or remediation may be prescribed by the Owner and may include work exclusion zones, modified schedules, or other methods based on the species involved. The Owner may temporarily suspend work in accordance with Section 8-1.06, "Suspensions," of the Standard Specifications.

The Contractor shall be responsible for penalties assessed on the Contractor or the City of Hayward as a result of the Contractor's failure to comply with the applicable provisions of the Federal and State regulations and requirements.

Penalties as used in this section shall include fines, penalties, and damages, whether proposed, assessed, or levied against the City of Hayward or the Contractor. Penalties shall also include payments made or costs incurred in settlement for alleged violations of applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

-END OF DOCUMENT-

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00 91 13 - ADDENDUM NO. []

1. SUMMARY

This document includes requirements that clarify or supercede portions of the Request for Proposal. This Addendum is a Contract Document.

-END OF SECTION-

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EXHIBIT A
 City of Hayward
 Department of Utilities & Environmental Services
CONSTRUCTION & DEMOLITION DEBRIS RECYCLING STATEMENT

APPLICANT: All materials generated during construction and demolition must be delivered to an authorized facility to maximize recycling. To obtain a building permit, read and sign the top half of this form. Be sure to share this information with your contractor, as s/he may be required to submit the lower half of this form before scheduling a final inspection. A copy of this form will be attached to your approved plans.

Permit Number: _____ Project Address: _____

Applicant Name: _____ Phone: _____ Email: _____

Check the boxes and sign below:

- I understand that debris may only be removed from the project site per the requirements on the back of this form.
- If I use a roll-off container, I understand that it must be from Waste Management of Alameda County.
- I understand that if debris is not hauled by Waste Management of Alameda County, an authorized hauler and facility must be used (see the back of this sheet for requirements).
- For projects valued over \$75,000, I understand that the contractor is required to submit all weigh tags and other receipts indicating tons recycled and landfilled before s/he can schedule a final inspection.

Applicant Signature: _____ Date: _____

CONTRACTOR: For projects with permit valuation of **\$75,000 or more**, prior to requesting a final inspection, submit all weigh tags and this form, documenting tons recycled or landfilled, to:

Mail: Department of Utilities & Environmental Services, Hayward City Hall, 777 B Street, 4th Floor, Hayward, CA 94541

Fax: 510-583-3610;

Email: recycling@hayward-ca.gov

Permit Number: _____ Project Address: _____

Contractor Name: _____ Phone: _____ Email: _____

Vehicle ¹	Material ²	Tons or Cubic Yards		Name of Facility(s) ³	Weigh Tags ⁴ (Y/N)
		Recycled	Landfilled		
	Mixed Debris				
	Separated Recyclable Materials <i>(Asphalt, concrete, bricks, doors, fixtures, cardboard, dirt, unpainted drywall & wood, pallets, scrap metal, plant debris)</i>				
	Garbage <i>(must be less than 5% recyclable material)</i>	N/A		Waste Management of Alameda County	

¹ For "Vehicle", please indicate one of the following: roll-off container, pick-up truck, stake-side truck, or end-dump truck.

² Plant debris must be separated and taken to designated facility, in accordance with the Alameda County Landfill Ban of 2009.

³ If you indicated "Roll-Off" in the first column, then you must indicate "Waste Management of Alameda County" or "WMAC" as the name of the facility.

⁴ Weigh tags must be provided and must indicate City of Hayward as the jurisdiction of origin.

APPROVAL TO SCHEDULE FINAL INSPECTION	
City Staff Initials: _____	Date Approved: _____

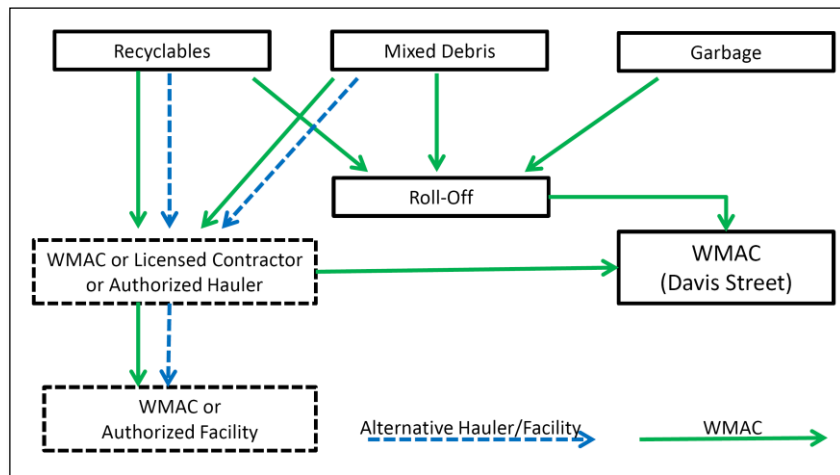


EXHIBIT A
City of Hayward
 Department of Utilities & Environmental Services
Construction & Demolition Debris Recycling Requirements

These requirements apply to all projects:

- Debris must be removed either:
 - a. By Waste Management of Alameda County; or
 - b. By a licensed contractor as part of the total service offered by that contractor, or
 - c. By an authorized hauler (see below).
- Debris that is not hauled by WMAC must be loaded onto a fixed body vehicle (e.g. pick-up, stake-side, or end-dump truck) and hauled directly to an authorized facility (see below) for recycling or composting.
- Debris that is not delivered to WMAC’s Davis Street Transfer Station must be hauled to an authorized recycling facility (see below) that holds all applicable permits and can provide weigh tags and other receipts indicating tons recycled and tons landfilled.
- If the load is garbage, it must be delivered to WMAC’s Davis Street Transfer Station at 2615 Davis Street, San Leandro. A load is considered garbage if it contains less than 5% recyclable materials.
 - Recyclable Materials include: concrete, asphalt, brick, rock, gravel, tiles, cardboard, paper, plastic film, scrap metal, clean (untreated and unpainted) wood, unpainted drywall, carpet and soil.
 - Garbage includes: painted wood, painted drywall, and insulation.

OPTIONS FOR DISPOSAL of CONSTRUCTION & DEMOLITION DEBRIS:



Only WMAC is Authorized to Provide Roll-Off (Drop-Box) Service in Hayward:

Waste Management of Alameda County (WMAC): 2615 Davis Street, San Leandro, CA 94577
 (Roll-Off Container Orders: 510-613-8740; Self-Haul Information: 510-638-2303)

Authorized Recycling Facilities and Haulers for Services other than Roll-Off (Drop-Box):

Waste Management of Alameda County (WMAC): 2615 Davis Street, San Leandro, CA 94577
 Ferma Corporation: 6655 Smith Ave, Newark, CA 94560; 877-337-6211
 Newby Island Landfill: 1601 Dixon Landing Road, San Jose, CA; 408-635-1401
 Recology: 501 Tunnel Avenue, San Francisco, CA 94134; 415-330-1400
 Zanker Road Material Processing Facility: 675 Los Esteros Road, San Jose, CA 95134; 408-263-2384

This form and more information are available at: <http://www.hayward-ca.gov/cdrecycling>
 For questions regarding these requirements, call 510-583-4700 or email recycling@hayward-ca.gov

**CITY OF HAYWARD – DEPT. OF PUBLIC WORKS
ADMINISTRATIVE CHANGE ORDER**

PROJECT:

A.C.O. NO.

CONTRACTOR:

**DATE:
PROJ. No.**

Upon mutual execution of this Change Order by Contractor and the City of Hayward, Contractor is hereby directed to make changes set forth below. Contractor agrees that the net change in the contract sum stipulated below shall constitute full compensation, as described under payment below, for the work required by the Change Order, including revised work schedules or changes to other contract work. Contractor further agrees that the additional contract time allotted (if any) is sufficient, and that there shall be no further time extensions or delay claims resulting from this Change Order.

Description of work to be done, estimate of quantities, and prices to be paid: Segregate between additional work at contract price, agreed price and force account. Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used, and no allowance will be made for idle time.

Change requested by: City of Hayward

SAMPLE

Total for this ACO # _____ is \$ _____.

We, the undersigned Contractor, have given careful consideration to the change proposed and hereby agree, if this proposal is approved, that we will provide all equipment, furnish all materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

By reason of this proposed change, __ working days extension of time will be allowed.

ACCEPTED:

Name of Contractor (Signature)

Please Print Name of Signature

Date

Title

APPROVED:

Alex Ameri
Director of Public Works

Date

STOP HUMAN TRAFFICKING!

If you or someone you know is being forced to engage in any activity and cannot leave -- whether it is commercial sex, housework, farm work, construction, factory, retail, or restaurant work, or any other activity - call the **National Human Trafficking Resource Center** at

Si a usted, o a alguien que conoce, lo están forzando a hacer algo y no lo dejan ir -- ya sea sexo por dinero, trabajo de casa, campo agrícola, construcción, fábrica, en una tienda minorista o restaurante, o cualquier otra actividad -- llame al **Centro Nacional de Recursos para la Trata de Personas** al

如果您本人或您认识的人被迫从事任何活动且无法脱身 -- 无论是性交易、家务劳动、农场工作、建筑、工厂、零售、餐馆工作还是任何其他活动 -- 请打电话给**全美反人口贩运资源中心**，电话号码

1-888-373-7888

or the California Coalition to Abolish Slavery and Trafficking (CAST) at

1-888-KEY-2-FRE(EDOM)

or **1-888-539-2373** to access help and services. Victims of slavery and human trafficking are protected under United States and California law.

The hotlines are:

- Available 24 hours a day, 7 days a week.
- Toll-free.
- Operated by nonprofit, nongovernmental organizations.
- Anonymous and confidential.
- Accessible in more than 160 languages.
- Able to provide help, referral to services, training, and general information.

o a la Coalición de California para Abolir la Esclavitud y la Trata de Personas (California Coalition to Abolish Slavery and Trafficking, CAST) al **1-888-KEY-2-FRE(EDOM)** o **1-888-539-2373** para obtener ayuda y servicios. Las víctimas de esclavitud y trata de personas están protegidas bajo las leyes de California y los Estados Unidos.

Las líneas de ayuda:

- Están disponibles las 24 del día, 7 días por semana.
- Son gratis.
- Están operadas por organizaciones no de gobierno y sin fines de lucro.
- Son anónimas y confidenciales.
- Prestan servicio en más de 160 idiomas.
- Pueden brindarle ayuda, remisión a servicios, capacitación e información general.

或打电话给加州废除奴役和人口贩运联盟 (California Coalition to Abolish Slavery and Trafficking, CAST)，电话号码

1-888-KEY-2-FRE(EDOM) 或 **1-888-539-2373**，获得帮助和服务。

奴役和人口贩运受害者受美国 and 加州法律的保护。

热线电话：

- 每周七天、每天二十四小时开通；
- 免费；
- 由非营利、非政府组织运营；
- 匿名和保密；
- 可用160多种语言拨打；
- 能够提供帮助、转介服务、培训和一般信息。

For more information:

BAHC2Freedom.org

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Report Human Trafficking. Text BeFree (233-733).

Exhibit D

COMMUNITY WORKFORCE AGREEMENT

WITH THE CITY OF HAYWARD

This Agreement is made and entered into this 6 day of July, 2017 (“Effective Date”), by and between the City of Hayward (“City”), together with other contractors and/or sub-contractors, who agree to, and shall become parties to this Agreement by signing the “Agreement To Be Bound” (Attachment A), and the Building and Construction Trades Council of Alameda County and its affiliated local unions.

PURPOSE

The purpose of this Agreement is to promote efficiency of construction operations performed by the City of Hayward and to provide for the peaceful settlement of labor disputes and grievances without strikes or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the projects covered by this Agreement, while helping to increase training and employment opportunities for graduates of the Hayward Unified School District (“HUSD”) and Hayward residents in the construction trades through local hire, apprenticeship and pre-apprentice programs.

RECITALS

WHEREAS, the successful completion of the City’s construction projects, as hereinafter defined, is of the utmost importance to the City of Hayward; and

WHEREAS, the interests of the general public, the City, the Unions and Contractor(s) would be best served if the construction work proceeded in an orderly manner without disruption because of strikes, sympathy strikes, work stoppages, picketing, lockouts, slowdowns or other interferences with work; and

WHEREAS, the Contractor(s) and the Unions desire to mutually establish and stabilize wages, hours and working conditions for the workers employed on construction work performed for the City of Hayward by the Contractor(s), and further, to encourage close cooperation among the Contractor(s) and the Union(s) to the end that a satisfactory, continuous and harmonious relationship will exist among the parties to the Agreement; and

WHEREAS, the Contractor(s) and the Union(s) and the City of Hayward wish to ensure labor peace at the jobsite devoid of any disruption that could jeopardize the schedule and timeliness of the construction process, where both contractors that are signatory to collective bargaining agreements of the Union(s) are supervising employees that are members of the Union(s) and where contractors that are not signatory to collective bargaining agreements are also supervising employees; and

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WHEREAS, SB 922, codified as Public Contract Code Section 2500 *et seq.*, authorizes public entities to use, enter into, or require contractors to enter into, project labor agreements for construction projects, provided the agreement includes specified taxpayer protection provisions, which requirements have been incorporated into this Agreement; and

WHEREAS, this Agreement is not intended to replace, interfere, abrogate, diminish or modify existing local or national collective bargaining agreements in effect during the duration of this Agreement, insofar as a legally binding agreement exists between the Contractor and the affected Union, except to the extent that the provisions of this Agreement are inconsistent with said bargaining agreements, in which event the provisions of this Agreement shall prevail; and

WHEREAS, contracts for construction subject to this Agreement will be awarded in accordance with the applicable provisions of the Charter of the City of Hayward, the California State Public Contract Code, the California Labor Code, and other applicable California law; and

WHEREAS, the City of Hayward has the absolute right to select the lowest responsive and responsible bidder for the award of the construction contracts; and

WHEREAS, the parties signatory to this Agreement pledge their full good faith and trust to work towards a mutually satisfactory completion of the projects covered by this Agreement.

NOW, THEREFORE, IT IS AGREED BETWEEN AND AMONG THE PARTIES HERETO AS FOLLOWS:

ARTICLE 1 **DEFINITIONS**

1.1 “Agreement” means this Community Workforce Agreement.

1.2 “Building Trades Council” means the Building and Construction Trades Council of Alameda County, AFL-CIO.

1.3 “City” means the City of Hayward.

1.4 “Completion” means that point at which the City accepts a project at issue by filing a Notice of Completion, or as otherwise provided by applicable state law. It is understood by the parties that portions of the Projects may be completed in phases and Completion of any such phase may occur prior to Completion of the Projects.

1.5 “Contractor(s)” means all contractors and subcontractors at all tiers, any individual, firm, partnership or corporation, or combination thereof, including joint ventures, which is an independent business enterprise and has entered into a contract with the City of Hayward or any of its contractors or subcontractors of any tier, with respect to the construction work necessary for any part of the Project,

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including construction building material delivery truckers, trucking companies and trucking brokers, who agrees, under contract with the Contractor(s), or a subcontractor of the Contractor(s), to perform on the project, any part or portion of the construction work covered by this Agreement, including the operating of construction equipment, performance of labor and/or installation of materials.

1.6 “Construction Contract(s)” means all of the contract(s) for construction of any Project as that term is hereinafter defined.

1.7 “Council” means the Building and Construction Trades Council of Alameda County.

1.8 “District Graduate” is a Hayward resident who has graduated from a Hayward Unified School District school within the last four years preceding the effective date of this Agreement.

1.9 “New Apprentice” is an apprentice who has been enrolled in a State of California approved apprenticeship program that is a joint labor-management apprentice program for a maximum of two years.

1.10 “Hayward Resident” means any individual who at any time during the Projects’ construction can certify through a utility bill or other similar means acceptable to the parties that the individual resides within the boundaries of the City of Hayward.

1.11 “Master Agreement” or “Schedule A” means the Master Collective Bargaining Agreement of each craft Union signatory hereto (copies of which shall be provided by the Union to the City) and which are listed in Attachment B, and which are incorporated herein by reference.

1.12 “Project” or “Projects” for the purposes of this Agreement mean all construction Projects costing more than one million dollars (\$1,000,000) based on Engineer’s Estimate.

1.13 “Union” or “Unions” means the Building and Construction Trades Council of Alameda County and its affiliated local Unions signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations, whose names are subscribed hereto and who have through their officers executed this Agreement.

1.14 “Project Manager” means the person or persons or business entity designated by the City to oversee all phases of design and construction on the Projects.

1.15 “Sole Operator” means a licensed contractor with no employees and exempted by the Contractor’s State License Board from the requirement to carry workers’ compensation insurance. (*See: California Business and Professions Code section 7125.*)

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1.16 "Veteran" means a person who served in the active military, naval, or air service, and who was discharged or released therefrom under conditions other than dishonorable.

ARTICLE 2 SCOPE OF AGREEMENT

2.1 Parties: This Agreement shall apply and is limited to all Contractors and Subcontractors performing Construction Contracts necessary for the Projects, the City, the Building Trades Council and any labor organization signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations, whose names are subscribed hereto and who have through their officers executed this Agreement.

2.2 Project Description: This Agreement shall govern the award of all of the Construction Contracts identified by the City as part of the Project. All Projects that are subject to this Agreement shall be identified as covered Projects in the agenda report to the City Council requesting the authorization to solicit bids. The City Council retains the right to exempt projects following meet and confer as an agenda item at the JAC between City staff and the Building Trades Council. The City has the absolute right to combine, change, consolidate, suspend or cancel Construction Contracts(s) or portions of Construction Contract(s) identified as part of the Projects. Once a Construction Contract is completed, it is no longer covered by this Agreement, except when a Contractor is directed to engage in repairs, warranty work or modifications required by its Construction Contract with the City. For the purposes of this Agreement, a Construction Contract shall be considered completed as set forth in Section 1.4 of this Agreement.

2.3 Covered Work:

2.3.1 This Agreement covers, without limitation, all construction Projects with a construction cost estimate of more than one million dollars (\$1,000,000). For these Projects, the Agreement covers all Contractor performed on-site site preparation, on-site surveying, construction, alteration, demolition, installation, improvement, painting or repair of buildings, structures and other works, and related activities for the Project that is within the craft jurisdiction of one of the Unions and which is directly part of the Project, including, without limitation to the following examples, geotechnical and exploratory drilling, temporary and permanent HVAC, landscaping and temporary fencing, pipelines (including those in linear corridors built to serve the project), pumps, pump stations, and installation of modular furniture that is covered by the State of California Prevailing Wage determinations. On-site work includes work done for the Project in temporary yards, dedicated sites, or areas adjacent to the Project, and at any on-site or off-site batch plant constructed solely to supply materials to the Project. This scope of work includes all soils and materials testing and inspection where such testing and inspection is a classification in which a prevailing wage determination has been published. This Agreement shall apply to any start-up, calibration, commissioning, performance testing, repair, and

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operational revisions to systems and/or subsystems performed for the Project after completion unless it is performed by City employees.

2.3.2 The Projects include work necessary for the Projects and/or in temporary yards or areas adjacent to and/or dedicated to the Projects, and at any on-site batch plant(s) constructed solely to supply materials to the Projects. This Agreement covers all on-site fabrication work over which the City or Contractor(s) possesses the right of control (including work done for the Projects in any temporary yard or area established for the Projects). Additionally, it is agreed hereby that off-site work, including fabrication work necessary for the projects defined herein that is covered by a provision of a current Master Agreement or local addenda to a National Agreement of the applicable Union(s) that is in effect as of the Effective Date of this Agreement shall be considered covered work under this Agreement.

2.3.3 The furnishing of supplies, equipment or materials that are stockpiled for later use shall in no case be considered subcontracting. Construction trucking work, such as the delivery of ready-mix, asphalt, aggregate, sand or other fill material that are directly incorporated into the construction process, as well as the off-hauling of debris and excess fill material and/or mud, shall be covered by the terms and conditions of this Agreement, to the fullest extent provided by law and by prevailing wage determinations of the California Department of Industrial Relations. Employers, including brokers, of persons providing construction trucking work shall provide certified payroll records to the City within ten (10) calendar days of written request or as required by bid specifications.

2.3.4 The on-site installation or application of all items shall be performed by the craft having jurisdiction over such work as set forth under the provisions of this Agreement; provided, however, that the installation of specialty items which may be furnished by the Contractor shall be performed by construction persons employed under this Agreement who may be directed by other personnel in a supervisory role; further, provided, however, in limited circumstances requiring special knowledge of the particular item(s), work may be performed by construction persons of the vendor or other companies where necessary to protect a manufacturer's warranty. The issue of whether it is necessary to use construction persons of the vendor or other companies shall be subject to the grievance and arbitration clause of this Agreement. Work subject to manufacturer's warranty shall be discussed during the pre-job conference.

2.4 Exclusions: The following shall be excluded from the scope of this Agreement:

2.4.1 This Agreement is not intended to, and shall not affect or govern the award of public works contracts by the City that are outside the identified scope of work of the Projects. This Agreement is not intended to and shall not govern any construction work that is bid or performed prior to the effective date of this Agreement. This Agreement applies only to Construction Contracts that are awarded by the City, and not third party public agencies, where City funding is utilized.

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2.4.2 This Agreement is not intended to, and shall not affect the current or anticipated operation, maintenance, repair, access to or use of any of the City's buildings or facilities, except in those circumstances where the Project satisfies the requirements set forth in Section 1.12.

2.4.3 This Agreement shall not apply to a Contractor or Subcontractor's executives, managerial employees, engineering employees, design employees, supervisors (except those covered by existing building and construction trades collective bargaining agreements), and office and clerical employees that are not performing construction work on the project.

2.4.4 This Agreement shall not apply to any work performed on, near or leading to the site of work covered by this Agreement that is undertaken by state, county or other governmental bodies or their contractors; or by public or private utilities or their contractors; or by the City or its contractors for work not part of the scope of the Projects. Furthermore, this Agreement shall not be construed to prohibit or restrict the City or its employees from performing work on or around the Project construction sites or from entering the sites for any purposes deemed necessary or appropriate by the City.

2.4.5 This Agreement shall not apply to the off-site maintenance of leased equipment or the on-site supervision of such work.

2.4.6 Unless otherwise decided by the City, work covered by this Agreement within the following craft jurisdictions shall be based on the terms of various National Agreements as follows: the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, and the National Agreement of Elevator Constructors, and any instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Technicians, with the exception that Articles 4, 11, 13 and 14 of this Agreement shall apply to such work.

2.5 Termination, Suspension and/or Delay of Work: It is understood and agreed that the City, at its sole option, may change, terminate, delay and/or suspend any and all portions of the covered work at any time. Furthermore, the City may prohibit some or all work on certain days or during certain hours of the day to comply with applicable codes, laws or regulations, permits or to accommodate the ongoing operations of the City's facilities and/or to mitigate the effect of the ongoing Projects' work on the businesses and residents in the neighborhood of the Project sites; and/or require such other operational or schedule changes that may be deemed necessary, in its sole judgment, to effectively maintain the primary purpose of the City's facilities and to remain a good neighbor to the residents and businesses in the area of the Projects. In order to permit the Contractors and Unions to make appropriate scheduling plans, the City will provide the affected Contractor and Union(s) with reasonable notice of any changes it requires pursuant to this section.

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ARTICLE 3 EFFECT OF AGREEMENT

3.1 By executing this Agreement, the Unions, and the City, and any other signatory to this Agreement, agree to be bound by each and every provision of this Agreement.

3.2 By accepting the award of a Construction Contract for the Projects, whether as contractor or subcontractor at any tier, the Contractor/Subcontractor agrees to be bound by each and every provision of this Agreement.

3.3 This Agreement shall only be binding on the signatory parties hereto their successors and assigns and shall not apply to the parents, affiliates, subsidiaries, lenders, or other ventures of any such party unless performing work within the scope of the Project(s).

3.4 At any time that any Contractor enters into a subcontract with any subcontractor of any tier for the performance of construction or construction trucking work within the scope of this Agreement, the Contractor shall provide a copy of this Agreement, as it may from time to time be modified by the negotiating parties, to said subcontractor and shall require the subcontractor as a part of accepting an award of a construction subcontract to agree in writing to be bound by each and every provision of the Agreement prior to the commencement of work.

3.5 Each Contractor and Subcontractor shall evidence their agreement to be bound to this Agreement by executing the Agreement To Be Bound form attached hereto as Attachment A. A copy of the Agreement To Be Bound executed by a Contractor or Subcontractor shall be submitted to the Union(s) prior to both the commencement of work and the pre-job conference. If the Contractor or Subcontractor refuses to execute the Agreement To Be Bound, then such Contractor or Subcontractor shall not be awarded a Construction Contract to perform work on the Projects. A Contractor or Subcontractor who executes the Agreement To Be Bound shall then subsequently be considered a signatory party to this Agreement.

3.6 The Contractor(s) has the primary obligation for performance of all conditions of this Agreement. This obligation cannot be relieved, evaded or diminished by subcontracting. Should the Contractor(s) elect to subcontract, the Contractor(s) shall continue to have such primary obligation.

3.7 Each Contractor(s) shall give written notice to the Union(s) of any subcontract involving the performance of work covered by this Agreement within either seven (7) days of entering such subcontract or before such subcontractor(s) commences work on the Project, whichever occurs first. Such notice shall specify the name, address and the California State License Board license number of the subcontractor(s).

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3.8 (a) With regard to any Contractor that is independently signed to any Master Agreement, this Community Workforce Agreement shall in no way supersede or prevent the enforcement of any subcontracting clause contained in such Master Agreement, except as specifically set forth in subsection (b) of this Section. Any such subcontracting clause in a Master Agreement shall remain and be fully enforceable between each craft union and its signatory employers, and no provision of this Community Workforce Agreement shall be interpreted and/or applied in any manner that would give this Community Workforce Agreement precedence over subcontracting obligations and restrictions that exist between craft unions and their respective signatory employers under a Master Agreement, except as specifically set forth in subsection (b) of this Section 3.8. To the extent that the provisions of this Agreement are inconsistent with any other provisions contained in a Master Agreement, the provisions of this Agreement shall prevail.

(b) If a craft union (hereafter "Aggrieved Union") believes that an assignment of work on this Project has been made improperly by a contractor or subcontractor, even if that assignment was as a result of another craft union's successful enforcement of the subcontracting clause in its Master Agreement, as permitted by subsection (a) of this Section 3.8, the Aggrieved Union may submit a claim under the jurisdictional resolution process contained in Article 12 of this Community Workforce Agreement, and the decision rendered as part of that process shall be enforceable to require the contractor or subcontractor that made the work assignment to assign that work prospectively to the Aggrieved Union. An award made to a craft union under the subcontracting clause of its Master Agreement, as permitted pursuant to Section 3.8(a) of this Article, shall be valid and fully enforceable by that craft union unless it conflicts with a jurisdictional award made pursuant to this Community Workforce Agreement. If the award made under the Master Agreement conflicts with the jurisdictional award, the award of any damages under the former shall be null and void *ab initio*.

3.10 Each Contractor(s) shall alone be liable and responsible for its own individual acts and conduct and for any breach or alleged breach of this Agreement. Any alleged breach of this Agreement by a Contractor(s) or any dispute between the Union(s) and the Contractor(s) respecting compliance with the terms of this Agreement, shall not affect the rights, liabilities, obligations and duties between the signatory Union(s) and each other Contractor(s), party to this Agreement.

3.11 It is mutually agreed by the parties that any liability of a Union(s) shall be several and not joint. Any alleged breach of this Agreement by a signatory Union(s) shall not affect the rights, liabilities, obligations and duties between the Contractor(s) and the other Union(s) party to this Agreement.

3.12 The Unions agree that this Agreement does not have the effect of creating any joint employment status between or among the City and/or any Contractor or subcontractor.

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3.13 The provisions of this Agreement, including Schedules A's, which are incorporated herein by reference and which are the local Master Agreements of the Signatory Unions having jurisdiction over the work on the Project, shall apply to the work covered by this Agreement, notwithstanding the provisions of any other local, area and/or national agreements which may conflict with or differ from the terms of this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a Schedule A, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a Schedule A and is not covered by this Agreement, the provisions of the Schedule A shall prevail.

ARTICLE 4

WORK STOPPAGES, STRIKES, SYMPATHY STRIKES AND LOCKOUTS

4.1 During the duration of the Projects, the Union(s) and its members, agents, representatives and employees shall not incite, encourage, condone or participate in any strike, walkout, slowdown, sit-down, stay-in, boycott, wobble, sympathy strike, picketing or other work stoppage or handbilling of any nature whatsoever, for any cause whatsoever (including jurisdictional disputes), and it is expressly agreed that any such action is a violation of this Agreement.

4.1.1 Withholding employees for failure of a Contractor(s) to tender trust fund contributions as required in accordance with Article 15 and/or for failure to meet its weekly payroll is not a violation of this Article 4; however, the Union(s) shall give the affected Contractor(s) and the City written notice five (5) business days prior to the withholding of employees when failure to tender trust fund contributions has occurred.

4.1.2 Expiration of Master Agreements. It is specifically agreed that there shall be no strike, sympathy strike, picketing, lockout, slowdown, withholding of work, refusal to work, walk-off, sit-down, stand-in, wobble, boycott or other work stoppage of any kind as a result of the expiration of any local, regional or other applicable labor agreement having application at the Projects and/or failure of the parties to that agreement to reach a new contract. If a Master Agreement expires before the Contractor(s) completes the performance of a construction contract and the Union(s) or Contractor(s) gives notice of demands for a new or modified Master Agreement, the Union(s) agrees that it will not strike or withhold labor from the Contractor(s) on said contract for work covered under this Agreement and the Union(s) and the Contractor(s) agree that the expired collective bargaining agreement shall continue in full force and effect for work covered under this Agreement until a new or modified Master Agreement is reached between the Union(s) and Contractor(s). If the Union(s) and Contractor(s) agree to an interim agreement that will apply until a new Master Agreement is reached, then, at the Contractor(s)' option, the Contractor(s) may work under the terms of the interim agreement until a new or modified Master Agreement is reached between the Union(s) and Contractor(s). If the new or modified Master Agreement reached between the Union(s) and Contractor(s) provides that any terms of compensation of the Master Agreement shall be retroactive, the Contractor(s) agrees to comply with any retroactive terms of the new or modified Master Agreement to its effective

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date which is applicable to employees employed on a project within seven (7) days after its effective date.

4.2 In consideration of the foregoing, the Contractor(s) shall not incite, encourage or participate in any lockout or cause to be locked out any employee covered under the provisions of this Agreement. The term "lockout" does not refer to the discharge, termination or layoff of employees by the Contractor(s) for any reasons in the exercise of its rights as set forth in any provision of this Agreement, nor does "lockout" include the City's decision to terminate or suspend work on the site or any portion thereof for any reason.

4.3 Any employee or employees inciting, encouraging or participating in any strike, slowdown, picketing, sympathy strike or other activity in violation of this Agreement is subject to immediate discharge and the procedure of Article 11, if invoked.

4.4 If the City contends that any Union has violated this Article, it will notify in writing (including email) the Secretary-Treasurer/Business Manager/Senior Executive of the Council and the Senior Executive of the Union, setting forth the facts alleged to violate the Article, prior to instituting the expedited arbitration procedure set forth below. The Council will immediately use his/her best efforts to cause the cessation of any violation of this Article. The leadership of the Union will immediately inform the membership of their obligations under this Article.

4.5 Any party to this Agreement shall institute the following binding arbitration procedure prior to initiating any other action at law or equity when a breach of this Article is alleged to have occurred. In the event a party institutes this procedure, arbitration shall be mandatory.

4.5.1 The party invoking this procedure shall immediately notify Robert Hirsch who the parties agree shall be the permanent Arbitrator under this procedure. Barry Winograd shall serve as the alternate in the event that the permanent Arbitrator is unavailable at any time. If both Arbitrators are unavailable, the City will propose three (3) additional alternate Arbitrators from which the other party in the action will select from those three (3) additional alternates. Notice to the Arbitrator shall be by the most expeditious means available, with notice by facsimile, telegram, email or similar means to the party alleged to be in violation and the involved Contractor(s) and/or Union(s), the Building Trades Council and the City.

4.5.2 Upon receipt of said notice the Arbitrator named above or the alternate shall designate a place for, schedule and hold a hearing within twenty-four (24) hours.

4.5.3 The Arbitrator shall notify the parties by facsimile, telegram, email or similar means of the place and time chosen for the session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an award by the Arbitrator.

4.5.4 The sole issue at the hearing shall be whether or not a violation of this Article has in fact occurred, and the Arbitrator shall have no authority to consider any matter in justification,

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explanation or mitigation of such violation or to award damages, which issue is reserved for court or other arbitration proceedings, if any. The Arbitrator shall determine compliance with this Article and establish the appropriate sum of damages, which shall not be less than One Thousand Dollars (\$1,000) or more than Ten Thousand Dollars (\$10,000) for each shift, for violations of this Article. The award shall be issued in writing within three (3) hours after the close of the hearing and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the award. The Arbitrator shall order cessation of the violation of this Article and other appropriate relief, and such award shall be served on all parties by hand or registered mail upon issuance.

4.5.5 The award shall be final, binding and non-reviewable as to the merits. A judgment of any court of competent jurisdiction shall be entered upon the award, which may be enforced by any such court, upon the filing of this Agreement and all other relevant documents referred to hereinabove in the following manner. Facsimile, telegram or similar notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the Arbitrator's award as issued under Section 4.5.4, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Arbitrator's award shall be served on all parties by hand or by delivery to their last known address or by registered mail.

4.5.6 Any rights created by statute or law governing arbitration or injunction proceedings inconsistent with the above procedure, or which interfere with compliance therewith, are hereby waived by the parties to whom they accrued.

4.5.7 The costs of the arbitration, including the fee and expenses of the Arbitrator, shall be borne equally by the parties.

4.5.8 The procedures contained in Article 4 shall be applicable only to alleged violations of this Article. Discharge or discipline of employees for violation of this Article 4 shall be subject to the grievance and arbitration procedures of Article 9.

4.6 If there is a lockout, strike, sympathy strike, stoppage, slowdown, picketing or action otherwise advising the public that a labor dispute exists or interference with the progress of the Projects, the Parties shall have the right to seek full legal redress in the courts of California, after complying with the emergency arbitration provisions of Article 4.

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ARTICLE 5 **PRE-JOB CONFERENCE**

5.1 A mandatory pre-job conference shall be held after the award of the contract and prior to the commencement of each Construction Contract or subcontract. Such conference shall be attended by a representative each from the participating Contractor(s), including all sub-contractors under contract, and Union(s), the Project Manager or any other City representative deemed appropriate by the City. One of the conference topics shall be discussion of work covered under warranty. All efforts will be made to hold the pre-job conference in sufficient time to ensure all parties the ability to properly raise and resolve any issue that may arise out of such meeting, with a goal that such conferences will be held at least fourteen (14) calendar days before the work commences. All meetings shall be held at Hayward City Hall, 777 B Street, Hayward, California 94541, or with mutual agreement of the parties, the meeting may be held at the offices of the Building Trades Council.

ARTICLE 6 **NO DISCRIMINATION**

6.1 The Contractors and Unions agree not to engage in any form of discrimination on the ground or because of race, color, creed, national origin, ancestry, age, sex, sexual orientation, gender identity, disability or any other basis made illegal by law against any person, or applicant for employment on the Projects.

ARTICLE 7 **UNION SECURITY**

7.1 The Contractors recognize the Union(s) as the sole bargaining representative of all construction persons working within the scope of this Agreement.

7.2 All construction persons who are employed by the Contractor(s) shall, as a condition of employment, on or before the eighth (8th) day of consecutive or cumulative employment on the Projects, be responsible for the payment of the applicable monthly working dues, fees, pension-fund type benefits, and any associated fees uniformly required for union membership in the applicable local union that is signatory to this Agreement, but is not required to join union.

7.3 Authorized representatives of the Unions shall have access to the Projects whenever their respective craft work is being performed on the Project.

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ARTICLE 8 REFERRAL

8.1 Contractor(s) performing construction work on the Projects described in the Agreement shall, in filling craft job requirements, utilize and be bound by the registration facilities and referral systems established or authorized by the Unions signatory hereto ("Job Referral System"). Such Job Referral System will be operated in a non-discriminatory manner and in full compliance with all federal, state, and local laws and regulations, including those which require equal employment opportunities and nondiscrimination.

8.2 The Contractor(s) shall have the right to reject any applicant referred by the Union(s), in accordance with any applicable Master Agreement.

8.3 The Contractor(s) shall have the unqualified right to select and hire directly all supervisors above general foreman it considers necessary and desirable, without such persons being referred by the Union(s).

8.4 In the event that referral facilities maintained by Union(s) are unable to fill the requisition of a Contractor(s) for employees within a forty-eight (48) hour period, weekends and holidays excluded, after such requisition is made by the Contractor(s), the Contractor(s) shall be free to obtain employees from any source ("Alternative Employees"). Upon hiring Alternative Employees, the Contractor(s) shall immediately notify the appropriate Union(s) of the name and address of the Alternative Employees hired. This provision does not affect core employees as defined below.

8.5 Unions shall exert their utmost efforts to recruit sufficient numbers of skilled craft persons, particularly those craft persons residing in Hayward, to fulfill the requirements of the Contractor(s).

8.6 A Sole Operator, as defined in this Agreement under section 1.15, self-performing work on a covered Project shall not be required to request dispatch from the union hall with jurisdiction over the Sole Operator's work. However, if the Sole Operator hires any additional employees subsequent to starting work on a covered Project, the Sole Operator will be treated as the core employee and any subsequent employee(s) will be dispatched from the hiring hall. Before hiring an employee(s) on the Project, the Sole Operator must request permission from the JAC through the Coordinator and provide evidence of compliance with CLSB and Workers Compensation requirements. For purposes of this Agreement, Trucking Sole Operators will be treated as the core employee, but must nevertheless be dispatched from the hiring hall, and will be exempt from trust fund obligations but must pay representational fees. All Sole Operators, including truckers, must sign this Agreement's Letter of Assent prior to starting work on a covered Project.

8.7 In the event that a Contractor has its own core employees, the Contractor may request by name, and the local union will honor, referral of persons who demonstrate the following qualifications:

Exhibit D

- (1) Possess any license and/or certifications required by state or federal law for the Project work to be performed; and
- (2) Have worked a total of at least one thousand (1,000) hours in the construction craft during the prior three (3) years; and
- (3) Were on the Contractor's active payroll for at least sixty (60) days out of the one hundred and eighty (180) calendar days prior to the contract award; and
- (4) Have the ability to perform safely the basic functions of the applicable trade.

8.8 The Union will refer to such Contractor one journeyman employee from the hiring hall out-of-work list for the affected trade or craft, and will then thereafter refer one of such Contractor's "core" employees as a journeyman and shall repeat the process, one and one, until such Contractor's crew requirements are met or until such Contractor(s) has hired no more than five (5) "core" employees, whichever occurs first. Thereafter, all additional employees in the affected trade or craft shall be hired exclusively from the hiring hall out-of-work lists(s). For the duration of the Contractor's work, the ratio shall be maintained and when the Contractor's workforce is reduced, employees shall be reduced in the same ratio of core employees to hiring hall referrals as was applied in the initial hiring. Contractor(s) signatory to a Master Agreement with Union(s) signatory hereto shall be bound to use the hiring hall provisions contained in the relevant collective bargaining agreement of the affected Union(s), and nothing in the referral provisions of this Agreement shall be construed to supersede the local hiring hall provisions of the Master Agreement, as they relate to such Contractor(s). Any exceptions requested to this process must be referred to the JAC for review.

8.9 Subject to the limitations of applicable law, the parties to this Agreement support the development of increased numbers of skilled construction workers who are residents of the City of Hayward, to meet the needs of the Projects and the requirements of the industry generally. To that end, the Unions agree to encourage the referral and utilization, to the extent permitted by law and the hiring hall procedures of the Unions, of qualified Hayward Residents as journeymen and apprentices on the Projects and entrance into such apprenticeship and training programs as may be operated by the signatory Unions consistent with the applicable apprenticeship program's state-approved standards.

ARTICLE 9 **GRIEVANCE PRODEDURE**

9.1 All disputes involving discipline and/or discharge of employees working on the Project shall be resolved through the grievance and arbitration provision contained in the Master Agreement for the craft of the affected employee. For purposes of this Article, such grievance procedure shall be limited to disputes regarding the imposition of discipline or dismissal arising from work covered by the Agreement. Such Contractor shall not impose discipline or dismissal on its construction persons covered

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by this Agreement without just cause. For purposes of this Agreement, just cause shall have the meaning set forth in the Master Agreement of the craft representing the employee(s) involved in the dispute.

ARTICLE 10

JOINT ADMINISTRATIVE COMMITTEE

10.1 The parties to this Agreement shall establish a five (5) person Joint Administrative Committee. This Committee shall be comprised of two (2) representatives selected by the City; two (2) representatives selected by the Unions; and one (1) industry representative mutually agreed to by the parties. Each representative shall designate an alternate who shall serve in his or her absence for any purpose contemplated by this Agreement. A quorum of the Joint Administrative Committee shall consist of three members, comprising at least one representative from the City and one representative from the Building Trades Council.

10.2 The Joint Administrative Committee shall meet as required, but not less than once each quarter, to review the implementation of the Agreement and the progress of the Projects. Any question by any party to the Agreement regarding the meaning, interpretation or application of the provisions of this Agreement shall be referred directly to the Joint Administrative Committee for review and recommendation. The Joint Administrative Committee will also have the responsibility of monitoring the provisions in Article 13 Local Hire and Apprentices.

10.3 If there is a request regarding exemptions per Section 2.2, the meet and confer discussion will occur between the City and Building Trades Representatives. If there is no agreement, the exemption would be presented to City Council for decision.

ARTICLE 11

GRIEVANCE ARBITRATION PROCEDURE

11.1 The parties understand and agree that in the event any dispute arises out of the meaning, interpretation or application of the provisions of this Agreement, the same shall be settled by means of the procedures set out herein. All disputes concerning the interpretation and/or application of this Agreement which do not fall within the Article 4 Work Stoppages, Strikes, Sympathy Strikes, and Lockouts procedure shall be governed by the following grievance and arbitration procedure. No grievance shall be recognized unless the grieving party provides notice in writing to the signatory party with whom it has a dispute within seven (7) calendar days after becoming aware of the dispute, but in no event more than thirty (30) business days after it reasonably should have become aware of the event giving rise to the dispute. The time limits in this Article may be extended by mutual written agreement of the parties.

11.2 Grievances shall be settled according to the following procedures:

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Step 1: Within seven (7) calendar days after the receipt of the written notice of grievance, the necessary parties to the grievance, including but not limited to the Business Representative of the involved Local Union, or the City's authorized representative or his/her designee, or representative of the construction person or the involved Contractor shall confer and attempt to resolve the grievance.

Step 2: In the event that the representatives are unable to resolve the dispute within seven (7) calendar days after its referral to Step 1, either involved party may submit it within three (3) calendar days to a Grievance Committee consisting of one (1) person selected by the City and one (1) person selected by the Council, which shall meet within seven (7) calendar days after such referral (or such longer time as mutually agreed upon by all representatives of the Committee), to confer in an attempt to resolve the grievance. Regardless of which party has initiated the grievance proceeding, prior to the meeting of the Grievance Committee, the Union(s) shall notify its International Union(s) Representative(s), which shall advise both parties if it intends on participating in the meeting. The participation by the International Union(s) Representative in this Step 2 meeting shall not delay the time set herein for the meeting, unless otherwise mutually agreed by the parties. A decision of the Grievance Committee shall be final and binding. If the dispute is not resolved with such time (seven (7) calendar days after its referral or such longer time as mutually agreed upon), it may be referred within seven (7) business days by either party to Step 3.

Step 3: In the event that the representatives are unable to resolve the dispute within seven (7) calendar days after its referral to Step 3, the parties shall choose a mutually agreed-upon arbitrator for final and binding arbitration. If the parties cannot mutually agree on the selection of an arbitrator, the arbitrator shall be selected by the alternate striking method from the following list: William Riker, Barry Winograd, The Honorable Laurence Kay, Robert Hirsch and Robert Clark. The order of striking names from the list of arbitrators shall be determined by a coin toss; the winner of such toss shall decide whether to strike first or second. Such striking shall take place within three (3) calendar days. If a party does not respond within three (3) calendar days, any arbitrator from the list is acceptable.

11.3 The Arbitrator shall arrange for a hearing no later than fourteen (14) calendar days after the matter has been submitted to arbitration. A decision shall be given to the parties within five (5) calendar days after completion of the hearing, unless such time is extended by mutual agreement. A written opinion may be requested by a party from the Arbitrator.

11.4 The decision of the Arbitrator shall be binding by all parties. The Arbitrator shall not have authority to change, amend, add or detract from any of the provisions of the Agreement. The expense

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of the Arbitrator shall be borne equally by both parties, with each party bearing the cost of their own legal counsel.

11.5 In order to encourage the resolution of disputes and grievances at Step 1 and 2 of the Grievance Procedure, the parties agree that such settlements shall not be precedent-setting.

11.6 The time limits specified in any step of the Grievance Procedure set forth in Section 11.2 may be extended by mutual agreement of the parties initiated by the written request of one party to the other, at the appropriate step of the Grievance Procedure. However, failure to process a grievance, or failure to respond in writing within the time limits provided above, without the request for an extension of time, shall be deemed a waiver of such grievance without prejudice, or without precedent to the processing of and/or resolution of like or similar grievances or disputes.

11.7 Where an issue is addressed in this Agreement and a Master Agreement, this Agreement shall prevail. Where an issue is addressed in a Master Agreement and not in this Agreement, the Master Agreement shall control. Grievances between a Union(s) and a Union(s)' signatory contractor involving interpretation or application of the Master Agreement shall be governed by the grievance procedures contained in the Master Agreement.

11.8 Any strike, slowdown, picketing, sympathy strike or other form of work stoppage that arises out of a dispute as to the interpretation of the Agreement shall be subject to the procedures set forth in Article 4.

11.9 Should any of the arbitrators listed in section 11.2 or above no longer work as a labor arbitrator, the City and the Council shall mutually agree to a replacement.

ARTICLE 12 **JURISDICTIONAL DISPUTES**

12.1 The assignment of Covered Work will be solely the responsibility of the Contractor/Employer(s) performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

12.2 All jurisdictional disputes on this Project between or among the Building and Construction Trades Unions and the Contractors, parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department, or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Union parties to this Agreement.

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12.2.1 If a dispute arising under this Article involves the Northern California Carpenters Regional Council or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch, and Thomas Pagan, and the Arbitrator's hearing on the dispute shall be held at the offices of the California State Building and Construction Trades Council in Sacramento, California, within 14 days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

12.3 All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor's assignment shall be adhered to until the dispute is resolved. Individuals violating this Section shall be subject to immediate discharge. Each Employer will conduct a pre-job conference with the Council prior to commencing work. The Project Manager and the City will be advised in advance of all such conferences. The Primary Contractor shall attend all such meetings and the City may participate if it wishes. Pre-job conferences for different Employers may be held together.

ARTICLE 13

LOCAL HIRE AND APPRENTICES

13.1 The parties agree to a goal that Hayward Residents, and especially District Graduates, will perform a minimum of thirty (30%) percent of the hours worked on a craft by craft basis on the Projects (the "Local Hire Goal"). The Contractor shall make good faith efforts to reach the Local Hire Goal through the utilization of the Union's hiring hall procedures. The Unions shall make good faith efforts in their recruiting and training of Hayward Resident workers and in their hiring hall procedures to facilitate the Local Hire Goal on the Projects. The parties shall cooperate to establish or support a pre-apprenticeship/internship program for HUSD graduates. If a Contractor fails to meet the Local Hire Goal or demonstrate a good faith effort, there will be a ten (10%) percent contract retention withheld until the Local Hire Goal is remedied. Acceptable remedies include: commitment to employ Hayward residents on non-City projects or acceptance of Hayward residents as new apprentices.

13.2 A Contractor that has employed a Hayward Resident for up to six (6) months preceding the start of the Project for a minimum of at least one hundred (100) hours per month who has the ability to perform safely the basic functions of the applicable trade may receive credit for fifty (50%) percent of those hours towards the Local Hire Goal. A contractor may also receive credit for fifty (50%) percent of the documented hours performed by Hayward Residents on non-City projects, when such hours are concurrent with the Contractor's work on the Project. The maximum total combined credit that can be applied under this section is half of the Local Hire Goal.

13.3 The Contractor is required to hire one Hayward resident as a New Apprentice for the first 1 million dollars (\$1,000,000) of construction costs with one additional apprentice for every \$5 million dollars (\$5,000,000) thereafter (capped at 2 per craft). A minimum of 50% of the applicable Apprentice hours on any project must be worked by the Hayward New Apprentice. Any modifications to these

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requirements must be agreed to by the JAC. There shall be no more than two New Apprentices for each craft, and the General Contractor shall be entitled to include New Apprentices hired by their subcontractors to meet this requirement. The City will refer the names of District Graduates and/or Hayward Residents to the Union and Contractors, and the Unions agree to cooperate with the Contractor in furnishing apprentices as requested. The hiring, supervision and compensation of apprentices shall be in accordance with the Apprenticeship Programs in the Master Agreements. The Contractor may deploy the Hayward New Apprentice to work on another concurrent project in order to meet the minimum hours, and those hours will be counted towards the total hours of the craft on the City project. The failure of the City to refer names and/or the Unions to provide those apprentices upon request will relieve the Contractor of this First-Period Apprentice hiring responsibility. The Contractor shall make good faith efforts to hire Apprentices for a minimum of six (6) months or 1,000 labor hours.

13.4 The Council shall facilitate and encourage enrollment of least ten (10) Hayward residents or District Graduates into State approved Labor-Management Apprenticeship programs during each year of the agreement term and facilitate placing them on a job site.

13.5 The Contractor or Subcontractor who hires such Hayward Resident First-Period Apprentices shall be credited with two (2) work hours towards the Local Hire Goal, for each hour worked by the Hayward Resident First-Period Apprentices.

13.6 The intent of the apprentice requirement is to employ new apprentices to the fullest extent permissible by state law and the Master Agreements. The failure of the Contractor and its subcontractors to maintain qualified apprentices on the Project will be subject to Division of Apprenticeship Standards' penalties and further penalties as determined by the Joint Administrative Committee. The Contractors, Unions and the Building Trades Council shall use good faith efforts to retain apprentices employed pursuant to this Agreement and advance those apprentices to journeyman status.

13.7 It shall be the responsibility of the Contractor to report and document compliance with this Article. This shall include, but not be limited to, monthly utilization reports showing all work hours by craft, certified weekly payroll records, and any documentation showing dispatch and referral requests.

13.8 The Contractor may request a negotiated compliance plan if compliance with the requirements of this Article is unreasonable or poses difficulty due to safety. In this case the Contractor will make the request in writing for a meeting with the Joint Administrative Committee prior to the commencement of work. The Joint Administrative Committee will then review this request, and if there is consensus, will approve the negotiated compliance plan, that the Contractor will sign off on. This new document will become the new local hiring requirements that the Contractor will have to meet or risk being in non-compliance.

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ARTICLE 14 **MANAGEMENT RIGHTS**

14.1 The Contractor shall retain full and exclusive authority for the management of its operations, including the right to direct its work force in its sole discretion, except as otherwise limited by the terms of this Agreement and/or the Master Agreements. No rules, customs or practices shall be permitted or observed which limit or restrict production, or limit or restrict the working efforts of construction persons except that the lawful manning provisions of the Master Agreements shall be recognized.

ARTICLE 15 **WAGES/BENEFITS**

15.1 The wages, hours and other terms and conditions of employment on the Project shall be governed by the Master Agreement of the respective crafts and shall also comply with applicable general prevailing wages, to the extent such Master Agreement is not inconsistent with this Agreement. Where a subject is covered by the Master Agreement and not covered by this Agreement, the Master Agreement will prevail. When a subject is covered by both the Master Agreement and this Agreement, to the extent there is any inconsistency, this Agreement will prevail.

15.2 All Contractor(s)/Employer(s) agree to pay contributions to the vacation, pension and other form of deferred compensation plan, apprenticeship, worker protection and assistance, and health benefit funds established by the applicable Master Agreement for each hour worked on the Project in the amounts designated in the Master Agreements of the appropriate local Unions.

15.3 By signing this Agreement, the Contractor(s)/Employer(s) adopt and agree to be bound by the written terms of the legally established Trust Agreements, as described in section 9.1, and which may from time to time be amended, specifying the detailed basis on which payments are to be made into, and benefits paid out of, such Trust Funds. The Contractors authorize the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratify and accept the trustees so appointed as if made by the Contractor(s). The Contractor(s) agrees to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) requires such document(s).

15.4 If an employee is discharged or voluntarily terminates, wages due shall be paid in accordance with California State Law.

ARTICLE 16 **MODIFIED MASTER AGREEMENTS**

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16.1 Certain Provisions Shall Not Apply. Provisions negotiated into the new or modified Master Agreements that are less favorable to the Contractor than those uniformly required of employers for construction work normally covered by those agreements or that may be construed to apply exclusively or predominately to work covered by this Agreement shall not apply to work covered by this Agreement. Any disagreement between the parties regarding the application of the provisions of any new or modified collective bargaining agreement to work covered by this Agreement shall be resolved under the dispute and grievance arbitration procedures set forth in Article 11 hereof.

ARTICLE 17 SAVINGS CLAUSE

17.1 The parties agree that in the event any article, provision, clause, sentence or word of this Agreement is determined to be illegal or void as being in contravention of any applicable law by a court of competent jurisdiction, the remainder of the Agreement shall remain in full force and effect. The parties further agree that if any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void by a court of competent jurisdiction, the parties shall substitute, by mutual agreement, in its place and stead, an article, provision, clause, sentence or word which will mitigate the objections to its validity and which will be in accordance with the intent and purpose of the article, provision, clause, sentence or word in question.

17.2 The parties also agree that in the event that a decision of a court of competent jurisdiction materially alters the terms of this Agreement such that the intent of the parties is defeated, then the entire Agreement shall be null and void.

ARTICLE 18 ENTIRE AGREEMENT

18.1 This Agreement, including the attachments hereto, and the Schedule As incorporated by reference, represents the complete understanding of the parties. The provisions of this Agreement shall apply to the work covered by this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a Master Agreement, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a Master Agreement and is not covered by this Agreement, the provisions of the Master Agreement shall prevail.

18.2 The parties agree that this Agreement covers matters affecting wages, hours, and other terms and conditions of employment and that during the term of this Agreement the parties will not be required to negotiate on any further matters affecting these or any other subject not specifically set forth in this Agreement except by mutual agreement of the parties.

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18.3 This Agreement may be executed in counterpart, such that original signatures may appear on separate pages and when bound together all necessary signatures shall constitute an original. Facsimile or PDF signature pages transmitted to other parties to this Agreement shall be deemed the equivalent to original signatures.

ARTICLE 19 **HELMETS TO HARDHATS**

19.1 The parties recognize a desire to facilitate the entry of Veterans who are interested in careers in the building and construction industry. The parties agree to utilize the services of the Center for Military Recruitment, Assessment and Veteran's Employment ("Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

19.2 The Union(s) and Contractor(s) agree to coordinate with the Center to participate in an integrated database of Veterans interested in working on the Projects and of apprenticeship and employment opportunities for the Projects. To the extent permitted by law, the Contractor(s) and Union(s) will give credit to such Veterans for bona fide, provable past experience.

ARTICLE 20 **TERM**

20.1 This Agreement shall be included as a condition of the award of the Construction Contract.

20.2 This Agreement shall continue in full force and effect for a term of three (3) years from the Effective Date and shall be applicable to all Projects until completion that are advertised for bidding during the term.

20.3 This Agreement shall continue in full force and effect until Completion of the Term. The parties may mutually agree to extend and/or amend this Agreement, and will review the Agreement at two years from date of execution for possible extension beyond the initial term. Review of the Agreement may include, but is not necessarily limited to, the following criteria: (1) the impact of the agreement on local jobs and work hours, (2) the administrative costs of implementing the Agreement, and (3) the impact on awarding contracts or subcontracts to City-based businesses as a result of the Agreement.

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ARTICLE 21 COMPLIANCE

21.1 It shall be the responsibility of the Contractor(s) and Union(s) to investigate and monitor compliance with the provisions of this Agreement contained in Article 15. Nothing in this Agreement shall be construed to interfere with or supersede the usual and customary legal remedies available to the Unions and/or employee benefit Trust Funds to collect delinquent Trust Fund contributions from Contractors on the Project.

ARTICLE 22 SUBSTANCE ABUSE PREVENTION

22.1 The use, sale, transfer and/or possession of a controlled substance during the work day is prohibited. Accordingly, the parties agree to adopt the procedures and safeguards for the testing of employees for prohibited or controlled substances set forth in the Uniform Substance Abuse Prevention Policy, attached as Attachment C hereto (the "Policy"). With respect to testing procedures, the parties agree that:

(i) No person referred from a Union hiring hall or any hiring organization shall be allowed on site as an employee until such person has completed and passed any test required under the applicable Policy; and

(ii) A person who is put to work immediately after having passed the tests shall be paid starting at the time the person reported for the test; and

(iii) Where a contractor requests a person to report for purposes of a pre-hire substance abuse test, and does not intend to place the person in an active work position that day, the person shall receive four (4) hours of pay at the regular straight-time hourly rate if the test is negative.

22.2 Requirements of Substance Abuse policies currently contained within a Master Agreement shall supersede the Policy attached as Attachment C and of the General Contractor policy below.

22.3 If the Substance Abuse policy of the General Contractor meets or exceeds the requirements of the policy in Attachment C, the General Contractor may then use their policy.

City of Hayward

By  Date: _____

Alameda County Building & Construction Trades Council, AFL-CIO

By _____ Date _____

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Attest: _____
City Clerk

Approved as to Form and Procedure:



City Attorney

Exhibit D

ARTICLE 21
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City of Hayward

By _____ Date: _____

Alameda County Building & Construction Trades Council, AFL-CIO

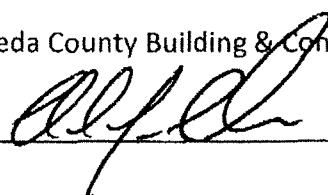
By  _____ Date 7-13-14

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Asbestos Workers, Local 16

By: _____

Auto & Marine Painters, Local 1176

By: _____

Boilermakers, Local 549

By: _____

Bricklayers & Allied Craftsmen, Local 3

By: _____

Carpenters, Local 2236

By: _____

Carpenters, Local 713

By: _____

Carpet & Lino Layers, Local 12

By: _____

Cement Masons, Local 300

By: _____

Electrical Workers, Local 595

By: _____

Elevator Constructors, Local 8

By: _____

Glass Workers, Local 169

By: _____

Insulator Workers, Local 16

By: _____

Ironworkers, Local 378

By: _____

Laborers, Local 67

By: _____

Laborers, Local 304

By: _____

Laborers, Local 886

By: _____

Lathers, Local 68L

By: _____

Millwrights, Local 102

By: _____

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Operating Engineers, Local 3

By: _____

Painters, Local 3

By: _____

Plasters, Local 66

By: _____

Roofers, Local 81

By: _____

Sheet Metal Workers, Local 104

By: _____

Sign Display, Local 510

By: _____

Sprinkler Fitter, Local 483

By: _____

Pile Driver, Local 34

By: _____

Plumbers & Steamfitters, Local 342

By: _____

Teamsters, Local #853

By: _____

U.A. Utility/Landscape, Local 355

By: _____

**District Council #16 Painters
(Local 1176, 12, 169, 3)**

By: _____

**No. CA Carpenters Regional Council
(Local 713, 2236, 68L, 102, 34)**

By: _____

**District Council Iron Workers of CA &
Vicinity Trades *Only Regional***

By: _____

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ATTACHMENT A AGREEMENT TO BE BOUND

The undersigned, as a Contractor or Subcontractor ("Contractor") on a City Project ("Project"), for and in consideration of the award to it of a contract to perform work on said Project, and in further consideration of the mutual promises made in the Community Workforce Agreement ("Agreement"), a copy of which was received and is acknowledged, hereby:

Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made to said Agreement;

Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of said Agreement;

Agrees to secure from any contractor (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, and from any successors, a duly executed Agreement to be bound in form identical to this document;

Contractor agrees that it shall be bound by all applicable trust agreements and plans for the provision of such fringe benefits as accrue to the direct benefit of the construction persons, including Health and Welfare, Pension, Training, Vacation, and/or other direct benefits provided pursuant to the appropriate craft Master Agreement and ratifies and accepts the trustees appointed by the parties to such trust funds, and agrees to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) requires such document(s).

Date: _____

Company Name _____

Name of Prime Contractor or Higher Level Subcontractor:

Name of Project: _____

Signature: _____

Print Name: _____

Title: _____

Contractor's License #: _____

Motor Carrier Permit (CA) #: _____

Exhibit D

ATTACHMENT B

(List of Master Agreements)

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ATTACHMENT C

CITY OF HAYWARD COMMUNITY WORKFORCE AGREEMENT UNIFORM SUBSTANCE ABUSE PREVENTION POLICY

This Uniform Substance Abuse Prevention Policy, hereinafter referred to as "Policy," is adopted by the City of Hayward, the Alameda County Building and Construction Trades Council, AFL-CIO, the Unions that become signatories to the Community Workforce Agreement (collectively referred to as "Unions") and the Contractors who agree to be bound by the City of Hayward Community Workforce Agreement (collectively the "parties").

The parties agree and acknowledge that the United States Government may require differing testing and detection standards than those that are contained in this policy for certain projects that will be constructed under the Community Workforce Agreement (the "CWA"). To the degree that these federal policies differ in substance or procedure (including the use of random testing), the parties acknowledge that the federal policies will prevail where required by law or regulation. Violation of any federal policy will result in the same consequences as a violation of this Policy.

POLICY

The Contractors and the Unions are committed to protecting the health and safety of individual employees, their co-workers, and the public at large from the hazards caused by the misuse of drugs and alcohol on the job. The safety of the public, as well as the safety of fellow employees, dictates that employees not be permitted to perform their duties while under the influence of drugs or alcohol.

This Policy supersedes any policies negotiated for any other work outside of the Project by Contractors and the Unions that might otherwise apply. Nothing in this Policy is intended to supersede or diminish more restrictive controlled substance or alcohol regulations imposed by federal or state agencies upon specific employee groups or categories of employees who are also covered by this Policy. A summary of this Policy will be provided to all dispatched employees. The full Policy will be made available to any Union representative or to Project employees upon request.

The intention of this Policy is to comply with the City of Hayward CWA's requirement to maintain a drug and alcohol free workplace in order to ensure safe and productive working conditions with due regard for the personal privacy interests of Project employees. It is not the intention of the parties that any Contractor intrude on off-duty activities of Project employees away from the Project site unless those activities have a job-related impact. The circumstances permitting controlled substance and alcohol testing in the Policy have been carefully defined and intentionally restricted. The Substance Abuse Prevention Coordinator will retain oversight over Policy implementation and will monitor test procedures for consistency and policy compliance.

In order to implement this Policy, the following agreements have been reached:

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1. No employee may purchase, sell, transfer, furnish, possess, use or be under the influence of illegal drugs or any alcoholic beverage while working on any Project job site in connection with work performed under the CWA, or when using any Contractor vehicle.
2. The proper use of prescription drugs or over-the-counter medication as part of a medical treatment program and consistent with the terms of this Policy is not a violation of this Policy. The improper use of prescription drugs, over-the-counter medication or the use of designer synthetic drugs that alters or affects an individual's motor function or mental capacity is prohibited and is a violation of this Policy. Employees who believe or have been informed that their use of any prescription drug or over-the-counter medication may present a safety risk are to report such use to the Contractor's supervision to ensure the safety of themselves, other employees, and Contractor or Project property or vehicles.
3. Any employee, while employed on the Project, who tests positive for drug or alcohol abuse or who is convicted for selling illegal drugs off the Project will not be permitted to work on the Project and will be subject to discipline up to and including discharge, subject to the provisions of this Policy. Employees engaged in the sale, purchase or use of illegal drugs during the employee's working hours will be subject to immediate termination and removed from the Project and will not be eligible for rehire.
4. Any prospective or dispatched worker who fails the pre-employment testing required pursuant to this Policy will be denied employment and will not be eligible for referral to any Contractor on the Project until a period of not less than sixty (60) calendar days has passed and the applicant has provided a certification of rehabilitation and satisfactory participation in an approved counseling or rehabilitation program, which will be at the employee's expense.
5. Any prospective or dispatched worker/employee who refuses to submit to a properly administered drug or alcohol test will be treated as having tested positive on the test and will be subject to removal from the Project and will not be granted permission for a second drug or alcohol test for a period of ninety (90) days.

NOTICE

1. When calling the Union hiring hall for workers, the Contractor shall advise the Union dispatcher that the Contractor will require any dispatched worker to take a pre-employment drug and alcohol test, and that worker(s) will be subject to further testing in accordance with specified circumstances outlined in this Policy.
2. At the commencement of a Contract, the Contractor shall also provide notice in advance of the first dispatch request either by certified mail, by facsimile transmission or by hand delivery.
3. The Contractor shall provide written notice to each employee, attached hereto as Appendix C, of the major provisions of the drug and alcohol testing policy and its consequences.
4. A Contractor that fails to provide notice to the dispatcher shall be liable for two hours show-up pay for any dispatched worker who refuses to take a pre-employment test, and a dispatched worker's

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refusal to take the test may not be used in any adverse manner against that worker, except that no dispatched worker will be hired without having taken a pre-employment drug test.

TERMS/DEFINITIONS

For purposes of this Policy, the following terms/conditions will apply:

1. **Illegal drugs:**

For the purpose of this Policy, the terms “illegal drugs” or “drugs” refer to those drugs listed in Appendix A, except in those circumstances where they are prescribed by a duly licensed health care provider. Appendix A lists the illegal drugs and alcohol and the threshold levels for which an employee/applicant will be tested. Threshold levels of categories of drugs and alcohol constituting positive test results will be determined using the applicable Substance Abuse and Mental Health Services Administration (“SAMHSA”) (formerly the National Institute of Drug Abuse, or “NIDA”) threshold levels, or U.S. Government thresholds where required, in effect at the time of testing. Appendix A will be updated periodically to reflect the SAMHSA or the U.S. Government threshold changes, subject to mutual agreement of the Parties.

2. **Prescription Drug:**

A drug or medication prescribed by a duly licensed health care provider for current use by the person possessing it that is lawfully available for retail purchase only with a prescription.

3. **Reasonable Cause:**

Reasonable cause to test (which test must be conducted pursuant to this Policy’s Identification and Consent Procedures outlined below) an employee for illegal drugs or alcohol will exist when specific, reliable, objective facts and circumstances are sufficient for a prudent person to believe that the employee more probably than not has used a drug or alcohol as evidenced by work performance, behavior or appearance while on the job site. These indicators will be recognized and accepted symptoms of intoxication or impairment caused by drugs or alcohol, and will be indicators not reasonably explained as resulting from causes other than the use of such controlled substances (such as, but not by way of limitation, fatigue, lack of sleep, side effects of proper use of prescription drugs, reaction to noxious fumes or smoke, etc.) If cause results from an observation, the observation must be confirmed by a second member of the Contractor’s supervision and those Contractor representatives will endeavor to consult with the Contractor’s Safety Representative or a job site management representative, one who must be trained in detection of drug use, and whose training will be documented. The specific behavioral, performance on-the-spot physical indicators of being under the influence of drugs or alcohol

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on the job will be substantiated in writing by the use of an Incident Report Form (attached as Appendix E).

The following may constitute some of the reasonable cause to believe that an employee is under the influence of drugs or alcohol:

- (a) Incoherent, slurred speech;
- (b) Odor of alcohol on breath;
- (c) Staggering gait, disorientation, or loss of balance;
- (d) Red and watery eyes, if not explained by environmental causes;
- (e) Paranoid or bizarre behavior; or
- (f) Unexplained drowsiness.

4. Post-Accident Testing:

A Contractor will require that an employee who is involved in an accident in the course of job duties resulting in serious damage to property or equipment or injury to him/herself or others as defined below may be tested (which test must be conducted pursuant to this Policy's Identification and Consent Procedures outlined below) for drugs or alcohol where the Contractor Safety Representative or designee concludes that:

- (a) The accident may have resulted from human error or could have been avoided by reasonably alert action; and
- (b) The employer's representative reasonably concluded that the employee(s) to be tested caused or contributed to the following circumstances:
 - (i) An OSHA recordable injury, i.e., medical treatment case, restricted work case or lost workday case;
 - (ii) Damage to equipment, vehicles, structures, or guarding resulting in repair costs that in the judgment of the Contractor will exceed \$2,500.00;
 - (iii) Loss of material containment resulting in an environmental spill notification; or
 - (iv) Any incident resulting in job site shutdown or involving a fatality; and
- (c) A basis exists to believe that the employee was under the influence of a drug or alcohol at the time of the accident.

5. Adulterated, Substituted or Diluted Specimens:

This Substance Abuse Prevention Policy adheres to guidelines established in SAMHSA Public Document 035 dated September 28, 1998, for determining the validity of a specimen. This guideline is consistent with the Department of Transportation (DOT) regulations (49 CFR Part 40 and 382) that permit laboratories to conduct additional tests to determine the validity of a specimen.

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An employee/applicant submitting a specimen for which an approved testing laboratory reports the existence of an “adulterant,” “interfering substance” and/or “masking agent” or the sample is identified as a “substituted specimen” will be deemed a violation of the PSA and Policy and will be processed as if the test result were positive. Those employees/applicants for whom the testing laboratory reports an “adulterated,” “interfering substance,” “masking agent” or “substituted” specimen will be prohibited from the Project for not less than ninety (90) calendar days and the employee/applicant shall be required to show certification of rehabilitation of satisfactory participation in a Substance Abuse Prevention Coordinator-approved rehabilitation program, not at the expense of the Contractor or Owner, as a condition of the employee’s return to work at that time.

The guideline issued in PD 035, in the SAMHSA September 28, 1998, memo uses the following reporting protocols:

- (a) Adulterated Specimen: PD 035 includes three definitions for Adulterated:
 - (i) If the nitrite concentration is equal to or greater than 500 mcg/mL.
 - (ii) If the pH is less than or equal to 3, or if it is greater than or equal to 11.
 - (iii) If a foreign substance is present, or if an endogenous substance (one that is normally found in urine) is present at a concentration greater than the normal physiological concentration.
- (b) Substituted Specimen: one that has a creatinine reading of less than or equal to 5mg/dL and a specific gravity less than or equal to 1.001 or greater than or equal to 1.020. These specimens do not exhibit the clinical signs or characteristics associated with normal urine.
- (c) Dilute Test: Protocol covering diluted specimens will follow guidelines established by SAMSHA PD 035 in its memo dated September 28, 1998. Specimens identified by the testing laboratory as dilute will require the employee/applicant to submit to an observed test. Refusal to retest or noncompliance with drug testing procedures will result in the employee/applicant being prohibited from working on the Project for ninety (90) calendar days, and the employee/applicant will be required to successfully complete a Substance Abuse Prevention Coordinator-approved rehabilitation program at his/her own expense as a condition of the employee’s return to work at that time.

A “dilute specimen” is defined as: “one that has creatinine reading less than 20 mg/dL, but greater than 5mg/dL, and a specific gravity less than 1.003 but greater than 1.001.

6. Project:

The Project is defined as any construction activity that is undertaken under the terms of the City of Hayward Community Workforce Agreement.

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IDENTIFICATION AND CONSENT PROCEDURE

1. When a prospective employee or dispatched worker arrives at the job site for potential employment, he/she will be shown and sign a copy of the Pre-Employment Substance Abuse Prevention Testing Consent/Waiver Form attached as Appendix D before taking a pre-employment drug or alcohol screening test. An employee who is working on the Project and has submitted to the pre-employment drug and alcohol test and has tested negative may thereafter be required to submit to drug or alcohol testing only if the Contractor has “reasonable cause” to believe that the employee is under the influence of drugs or alcohol in violation of this Policy or in connection with an accident as set out above in this Policy. The Contractor may order urine (or in the case of alcohol, breathalyzer) testing only.

2. If a management representative (preferably not in the bargaining unit) makes observations of an employee which may constitute reasonable cause for drug or alcohol testing, the supervisor shall immediately take the following actions:
 - A. Inform the employee that he/she may have a Union Representative present, if reasonably available. The employee will be shown the Substance Abuse Prevention Testing Consent/Waiver Form attached as Appendix B.
 - B. Fill out the Incident Report Form, including a statement of the specific facts constituting reasonable cause to believe that the employee is under the influence of drugs or alcohol, and the name of the person(s) making the supporting observations.
 - C. Provide a completed copy of this Incident Report Form to the employee before he/she is required to be tested (and one copy made available to the Union Representative, if present). After being given a copy of the Incident Report Form, the employee will be allowed enough time to read the entire document, to understand the reasons for the test.
 - D. Provide the employee with an opportunity to provide an explanation of his/her condition, including providing evidence (e.g., doctor’s prescription or note, or prescription container) or existing medical treatment or reaction to a prescribed drug. If available, the Union Representative shall be present during such explanation and will be entitled to confer with the employee before the explanation is required.
 - E. If the Management representative(s), after observing the employee, and hearing any explanation, concludes that there is in fact reasonable cause to believe that the employee is under the influence of drugs or alcohol, the employee may be ordered to submit to a drug and/or alcohol test and will be asked to sign the Consent/Waiver Form attached as Appendix B.

3. Failure to follow any of these procedures will result in the elimination of the test results as if no test had been administered; the test results will be destroyed and no discipline shall be imposed against the employee. Refusal of the employee to submit to the test where these procedures have been followed

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will be treated as a positive test and subject the employee to discipline including removal from the Project and discharge.

4. Unless there is reason to believe that the person being tested has previously altered a sample or unless there is agreement in writing, an individual will be allowed to provide the required specimen in the privacy of a stall or partitioned area.

5. A worker initially dispatched to a Project job site where this Policy is in effect will be required to submit to testing for illegal drugs or alcohol as defined in the Policy. The testing of such workers must be conducted in compliance with the "Drug Testing Procedures" described in this Policy, and be required of dispatched workers only on the first day of reporting to the initial job site. The urine drug and alcohol testing of these dispatched workers is the only testing allowed under this Policy, other than for "reasonable cause" or in connection with an accident as set out above in this Policy. Notwithstanding this provision, if a rehabilitation program or drug treatment program determines that periodic testing is appropriate or necessary for the employee who has tested positive under this Policy, then that employee will be subject to future urine drug testing as recommended by the rehabilitation program.

Except as set out in the Notice provision above, a worker initially dispatched to such job site who refuses to submit a urine sample for drug/alcohol testing will not be entitled to show-up pay for that day, and will be denied employment on the Project for a period of ninety (90) calendar days. If a worker who has refused a test returns to the same job site within ninety (90) calendar days, and is denied work, that worker will not be entitled to show-up pay. If a worker initially dispatched to the job site refuses to submit a urine sample or to take a breathalyzer test for drug/alcohol testing, and that worker is denied employment for ninety (90) calendar days this action will not be grievable under the CWA. If the worker tests negative for drugs and alcohol, he/she will not be drug tested again while employed by the Contractor at any job site except for reasonable cause or post-accident as described in this Policy.

6. If the Contractor has reasonable cause to believe an employee is under the influence of drugs or alcohol, or requires a post accident drug or alcohol test, as set forth in this Policy, and the employee refuses to submit to a drug test, the refusal shall be treated as a positive test result and the employee/applicant shall be subject to discipline, including removal from the Project and discharge.

7. The following rules control the pay for dispatched workers tested on the first day of their employment:

- A. A dispatched worker who is put to work immediately after having passed the test shall be paid starting at the time the worker reported for the test(s).
- B. Where a contractor requests a dispatched worker to report for purposes of a pre-hire substance abuse test, and does not intend to place the worker in an active work position

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on that day, the worker shall receive four (4) hours of pay at the regular straight-time hourly rate if the test is negative.

- C. If the dispatched worker is not allowed to work until the results of the drug test are received, and the test results are positive, the dispatched worker is not entitled to any form of pay (including show-up pay).
- D. If the dispatched worker is put to work, that dispatched worker is entitled to pay and benefits under the CWA for all hours worked, regardless of the results of the drug test.
- E. Where a Contractor fails to provide notice, pursuant to this Policy, to the Union hiring hall that the job site is a drug and alcohol testing site, a dispatched worker who refuses to take the pre-employment test will be paid two hours show-up pay, except that no dispatched worker will be hired without having taken a pre-employment drug test.

DRUG TESTING PROCEDURES

1. The testing shall be done at a certified laboratory located in California. The parties retain the right to inspect the laboratory to determine conformity with the standards described in this Policy. The laboratory will only test for alcohol and the illegal drugs listed in the Definition Section of this Policy and Appendix A. All testing will be at the Contractor's expense.

Testing procedures, including controlled substance to be tested, specimen collection, chain of custody and threshold and confirmation test levels shall comport with the Mandatory Guidelines For Federal Workplace Testing Programs established by the U.S. Department of Health and Human Services, as amended and the Federal Motor Carrier Safety Act regulations, where applicable. Controlled substance tests shall be conducted only by laboratories licensed and approved by SAMHSA which comply with the American Occupational Medical Association (AOMA) ethical standards. Controlled substance tests shall be by urinalysis and shall consist of two procedures, a screen test (EMIT or equivalent) and if that is positive, a confirmation test (GC/MS). Alcohol test shall be by breathalyzer. Any test revealing a blood/alcohol level equal to or greater than 0.08 percent, or the established California State standard for non-commercial motor vehicle operations, or when operating a moving vehicle or crane any test revealing a blood/alcohol level equal to or greater than 0.04 percent, or the established California State standard for commercial motor vehicle operations, shall be positive and will be conducted under procedures consistent with California state law.

An employee/applicant presenting himself/herself at a Substance Abuse Prevention Coordinator-approved drug collection site must have a minimum of one piece of government-issued photo identification and may not leave the collection site for any reason – unless authorized by the collection agency – until he/she has fully completed all collection procedures. Failure to follow all collection procedures will result in the employee/applicant being classified as “refusing to test” and

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being prohibited from working on the Project for a minimum of ninety (90) calendar days from the date of the scheduled test.

At the time the urine specimens are collected two (2) separate samples shall be placed in separate sealed containers. One (1) of the samples collected in a separate container shall be kept refrigerated at the site where the sample is given. Upon request, this second sample shall be made available to the employee for testing by a certified laboratory selected by the employee at the employee's expense.

2. The specific required procedure is as follows:
 - A. Urine will be obtained directly in a tamper-resistant urine bottle. Alternatively, the urine specimen may be collected at the employee's option in a wide-mouthed clinic specimen container that must remain in full view of the employee until transferred to, sealed and initialed, in separate tamper-resistant urine bottles.
 - B. Immediately after the specimen is collected, it will be divided into two (2) urine bottles which, in the presence of the employee, will be labeled and then initialed by the employee and witness. If the sample must be collected at a site other than the drug and/or alcohol-testing laboratory, the specimens must then be placed in a transportation container. The container shall be sealed in the employer's presence and the employee must be asked to initial or sign the container. The container will be sent to the designated testing laboratory on that day or the earliest business day by the fastest available method.
 - C. A chain of possession form must be completed by the hospital, laboratory and/or clinic personnel during the specimen collection and attached to and mailed with the specimens.
3. The initial test of all urine specimens will utilize immunoassay techniques. All specimens identified as positive in the initial screen must be confirmed utilizing gas chromatography/mass spectrometry (GC/MS) technique that identifies at least three (3) ions. In order to be considered "positive" for reporting by the laboratory to the employer, both samples must be tested separately in separate batches and must also show positive results on the GC/MS confirmatory test.
4. All positive drug, alcohol or adulterant test results must be reported to a Medical Review Officer (MRO) appointed by the designated laboratory. The MRO shall review the test results and disclosure made by the employee/dispatched worker and shall attempt to interview the employee/dispatched worker to determine if there is any physiological or medical reason why the result should not be deemed positive. If no extenuating reasons exist, the MRO shall designate the test positive. The MRO shall make good faith efforts to contact the employee/dispatched worker, but failing to make contact within two (2) working days, may deem the employee/dispatched worker's result a "lab positive." After the issuance of a "lab positive," the employee/dispatched worker will be barred

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from the Project until the employee/dispatched worker makes contact with the MRO and the MRO sends the Substance Abuse Prevention Coordinator a written confirmation of the negative result.

5. If the testing procedures confirm a positive result, as described above, the employee/dispatched worker and the Substance Abuse Prevention Coordinator will be notified of the results in writing by the MRO, including the specific quantities. If requested by the employee or the Union (within the written consent of the member), the laboratory will provide copies of all laboratory reports, forensic opinions, laboratory work sheets, procedure sheets, acceptance criteria and laboratory procedures.
6. In the event of a positive drug or alcohol test, an automatic confirmation test will be performed on the original specimen by the testing laboratory at no cost to the employee. In addition, the testing laboratory shall preserve a sufficient specimen to permit an independent re-testing at the request of the employee at his/her expense. Re-tests may be conducted by the same or any other approved laboratory. The laboratory shall endeavor to notify the MRO of positive drug, alcohol or adulterant test results within five (5) working days after receipt of the specimen. The employee may request a re-test within five (5) working days from notice of a positive test result by the MRO. Costs of re-tests will be paid in advance by the requesting party.
7. The Substance Abuse Prevention Coordinator shall ensure that all specimens confirmed positive will be retained and placed in properly secured long-term frozen storage for a minimum of one (1) year, and be made available for retest as part of any administrative proceedings.
8. All information from an employee's or dispatched worker's drug and alcohol test is confidential for purposes other than determining whether this Policy has been violated. Disclosure of test results to any other person, agency, or organization is prohibited unless written authorization is obtained from the employee or dispatched worker. The results of a positive drug test shall not be released until the results are confirmed.
9. Every effort will be made to ensure that all employee substance abuse problems will be discussed in private and actions taken will not be made known to anyone other than those directly involved in taking the action, or who are required to be involved in any disciplinary procedure, and those persons will be identified in writing at the time of the procedure.

No laboratory or medical test results will appear in the employee's Personnel File. Information of this nature will be kept in a separate confidential file.

All necessary measures shall be taken to keep the fact and the results of the test confidential.

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CONSEQUENCES FOR VIOLATING THE RULES AND PROVISIONS OF THIS POLICY

1. Prospective or dispatched workers: Dispatched workers who test positive to the pre-employment drug and alcohol test conducted pursuant to this Policy will be denied employment by the Contractor until the test is confirmed to the dispatched worker in writing. Dispatched workers will be informed in writing if they are rejected on the basis of a confirmed positive drug test result. A dispatched worker may utilize the CWA grievance procedure to challenge the validity of a positive test result.

2. Employees: If the initial results of a drug or alcohol test administered by the Contractor show that the employee was under the influence of drugs or alcohol while on duty, the employee will be removed from the Project until the test results have been confirmed by the procedures contained in this Policy.
 - (a) If the final test is negative, the employee will be reinstated with full back pay for lost time.

 - (b) If the initial positive test result is confirmed, the employee will be barred from the Project effective the date and time of the collection of the test specimen. The employee is subject to termination, subject to the provisions of the section below.

 - (c) Discipline imposed for a first positive test for an employee subjected to reasonable-cause testing, or subject to post-accident testing when in fact drugs or alcohol played no role in the accident, and any grievance filed in response thereto, will be held in abeyance pending voluntary participation by the employee in a Substance Abuse Prevention Coordinator-approved treatment program during an unpaid leave of absence.

 - (d) The employee may return to work if work is available after a certificate of either rehabilitation or satisfactory participation in the program. If the program determines that periodic testing is appropriate or necessary, the employee will be subject to future urine drug or alcohol testing, even on a random basis.

 - (e) If the employee successfully completes or participates in such a program or is not disciplined for substance use, possession or being under the influence of drugs or alcohol for twenty-four (24) months following the initial confirmed positive test, the discipline shall be revoked.

 - (f) A second positive test will result in the imposition of discipline, including termination and removal from the Project and the lifting of any suspension regarding discipline imposed for a first test less than twenty-four (24) months preceding the date of the second positive test.

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NOTICE AND CONSENT/WAIVER FORMS

Employees must execute a written consent and waiver to submit to the drug and alcohol tests and for the testing laboratory to release the report of test results to the Contractor. The individual to be tested will sign the form attached as Appendix D at the time of submitting to a pre-employment test and the form attached as Appendix B for any subsequent test. Signing the Content/Waiver Form will not waive any individual rights available to the employee under federal or state law. The employee must also sign at the time of employment the Notice Form, attached as Appendix C, describing the employee's obligations under this Uniform Substance Abuse Prevention Policy.

SUBSTANCE ABUSE PREVENTION COORDINATOR

The City will designate a Substance Abuse Prevention Coordinator from candidates nominated by the parties to the CWA to monitor compliance with this Policy and to provide assistance to Project employees with questions concerning drugs or alcohol test procedures, availability of approved counseling or rehabilitation or any other drug or alcohol matters. All inquiries to the Coordinator will be confidential. The parties are eager to help employees with drug and alcohol problems. The Coordinator will be prepared to assist employees in discussing insurance coverage and locating available counseling, rehabilitation and community resources.

SUPERVISOR TRAINING

The Contractor shall develop and implement a program of training to assist management representatives and stewards in identifying factors which constitute reasonable cause for drug testing, as well as a detailed explanation and emphasis on the terms and conditions of the Policy.

EMPLOYEE VOLUNTARY SELF-HELP PROGRAM

An employee who engages in drug/alcohol abuse is encouraged to participate in an Employee Voluntary Self-Help Program. Employees who seek voluntary assistance for alcohol and/or substance abuse not arising out of or in connection with the occurrence of any testing incident or related disciplinary action may not be disciplined for seeking such assistance. Request by employees for such assistance shall remain confidential and shall not be revealed to other employees or management personnel without the employee's consent. Such Voluntary Self-Help Program will not be at the expense of the Contractor. An Employee Self-Help Program Counselor shall not disclose information on drug/alcohol use received from an employee for any purpose or under any circumstances, unless specifically authorized in writing by the employee.

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The Contractor shall offer an employee affected by alcohol or drug dependency an unpaid medical leave of absence, for the purpose of enrolling and participating in a drug or alcohol rehabilitation program. Any employee who voluntarily submits to such Voluntary Self-Help Program may return to employment on the Project upon successful completion of such a program, or upon a certification of rehabilitation and satisfactory participation in such a program, and provide that the employee passes a drug and alcohol test upon return to the Project and agrees for a period of one (1) year thereafter, to submit to periodic drug and alcohol testing, which shall be conducted in addition to any reasonable cause or post-accident testing otherwise conducted, if considered appropriate or necessary by the rehabilitation program.

The Substance Abuse Prevention Coordinator will work with the signatory Unions to develop an "approved" list of counseling and rehabilitation programs to be used by the employees/dispatched workers who test positive for illegal drugs, alcohol, adulterants or misuse of prescription drugs. The cost of counseling and rehabilitation will not be the responsibility of the Contractor.

GRIEVANCE PROCEDURE

All disputes concerning the interpretation or application of the Policy shall be subject to the grievances procedure established by the CWA. Nothing in the grievance procedure may void this Uniform Substance Abuse Policy from continued utilization on Project work.

SAVINGS CLAUSE

The establishment or operation of this Policy shall not curtail any right of any employee found in any law, rule or regulation. Should any part of the Policy be determined contrary to law, such invalidation of that part or portion of the Policy will not invalidate the remaining portions. In the event of such determination, the parties to the CWA agree to meet promptly to commence negotiations concerning the provision affected by such decision for the purpose of achieving conformity with the requirements of the applicable law and the intent of the parties hereto.

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TERM OF THE POLICY

This Policy constitutes the only agreement in effect between the parties to the CWA concerning drug abuse, prevention and drug testing. No revisions or amendments will be made to this Policy except with the written approval of the parties hereto. This Policy shall become effective for all work covered by the CWA upon the effective date of the CWA and shall remain in effect for the duration of the CWA unless terminated or amended by the mutual consent of the parties hereto.

The parties to the CWA agree to meet on an annual basis to review this Policy, to bring it into compliance with the law, if necessary, and to review other considerations which may arise during the course of the CWA. Changes in this Policy may be made only if mandated by law or agreed upon by the parties.

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APPENDIX A SUBSTANCE ABUSE PREVENTION AND DETECTION THRESHOLD LEVELS

CONTROLLED SUBSTANCE*	SCREENING METHOD	SCREENING LEVEL**	CONFIRMATION METHOD	CONFIRMATION LEVEL
Amphetamines	EMIT	1000 ng/ml	GC/MS	500 ng/ml**
Barbiturates	EMIT	300 ng/ml	GC/MS	200 ng/ml
Benzodiazepines	EMIT	300 ng/ml	GC/MS	300 ng/ml
Cocaine	EMIT	300 ng/ml**	GC/MS	150 ng/ml**
Methadone	EMIT	300 ng/ml	GC/MS	100 ng/ml
Methaqualone	EMIT	300 ng/ml	GC/MS	300 ng/ml
Opiates	EMIT	2000 ng/ml**	GC/MS	2000 ng/ml**
PCP (Phencyclidine)	EMIT	25 ng/ml**	GC/MS	25 ng/ml**
THC (Marijuana)	EMIT	50 ng/ml**	GC/MS	15 ng/ml **
Propoxyphene	EMIT	300 ng/ml	GC/MS	100 ng/ml
Alcohol	EMIT	0.08 or 0.04% as required	GC/MS	0.08 or 0.04% as required

*All controlled substances including their metabolite components.

** SAMHSA specified threshold

*** A sample reported positive contains the indicated drug at or above the cutoff level for that drug. A negative sample either contains no drug or contains a drug below the cutoff level. Testing levels may be changed to meet revised industry standards subject to mutual agreement.

EMIT - Enzyme immunoassay

GC/MS – Gas Chromatography/Mass Spectrometry

Exhibit D

APPENDIX B
EMPLOYEE DRUG TEST
CONSENT/WAIVER FORM

TO: (Name of Contractor/Employer) _____
FOR: (Project Name) _____
Name of Dispatched Worker/Employee: _____
Social Security Number: _____
Home Address: _____
City: _____ State: _____ Zip Code: _____
Home Telephone: _____ Other Phone Numbers: _____

Consent for Testing

I (name) _____ understand that my Employer has determined that there is probable cause to believe that I have been working at the job site under the influence of alcohol or drugs. In response to this, my Employer requires that I provide a urine (or breathalyzer) sample as is allowed under the Project drug testing policy.

These tests will be used to detect the presence of alcohol, marijuana and/or other drugs in my body. I understand that if these drugs are found to be present in my body that I will be subject to discipline including discharge from employment.

I hereby consent and agree to give specimens of my urine or to take the breathalyzer test. **My refusal to provide such a specimen or take such a test will lead to termination of my employment.**

All charges for these tests will be paid for by the Employer and not by me.

Waiver: The results of any test I am required to take may be furnished, in accordance with the terms of this policy, to the Medical Review Officer, the Substance Abuse Prevention Coordinator and my employer. The company may inform the Union that I failed the test only if a grievance is filed in my behalf.

I have read and understood and agree to the above:

Witness Signature

Employee Signature

Date

Date

Exhibit D

APPENDIX C UNIFORM SUBSTANCE ABUSE PREVENTION POLICY NOTICE FORM

The City of Hayward CWA Substance Abuse Prevention Policy requires that:

- Use, possession or the sale of controlled substances at the Project site is prohibited. Employees engaged in the sale, purchase or use of illegal drugs during the employee's working hours will be subject to immediate termination, removed from the Project and not be eligible for rehire.
- Conviction for selling illegal drugs, while employed on this Project, even if off the Project, will cause me to be barred from the Project and will subject me to discipline, including discharge.
- Use of prescribed or over-the-counter medication is permitted if it will not affect work performance.
- If prescribed or over-the-counter medication may cause a safety risk, I must notify my Contractor/Employer prior to using such substances on the job.
- If I refuse to submit to pre-employment screening/testing for controlled substances and alcohol as requested by the Contractor in accordance with the terms of the Policy, I will not be eligible to retake the drug test for ninety (90) calendar days. I understand that nobody will be hired on the Project without taking and passing such a test.
- The presence of an adulterant in my system at or above the defined threshold levels will make me ineligible for employment, or will result in the termination of my employment and ineligibility for reemployment, for at least ninety (90) calendar days.
- I will not be hired if I fail the test because an illegal drug or alcohol is found in my system, and I will not be eligible to be employee for ninety (90) calendar days and unless I have participated successfully in a drug or alcohol rehabilitation program.
- I may be terminated for failing a drug or alcohol test, and I will be required to complete an approved counseling or rehabilitation program and to agree to periodic testing at that program's request in order to return to work.

I sign this acknowledgement voluntarily, with full knowledge and understanding of the City of Hayward CWA Substance Abuse Prevention Program and I agree to be bound by its terms.

(Employee Name)

Print _____

Signature _____

Date _____

Contractor/Company Name

Exhibit D

APPENDIX D
CITY OF HAYWARD CWA
PRE-EMPLOYMENT DRUG TEST
CONSENT/WAIVER FORM

TO: (Name of Contractor/Employer) _____
FOR: (Project Name) _____
Name of Dispatched Worker/Employee: _____
Social Security Number: _____
Home Address: _____
City: _____ State: _____ Zip Code: _____
Home Telephone: _____ Other Phone Numbers: _____

Consent for Testing

I (name) _____ understand that the City of Hayward Project to which I have been dispatched, or for which I am seeking employment, requires pre-employment drug and alcohol testing. The company to which I have been dispatched requires that I take and pass this test prior to commencing employment.

These tests will be used to detect the presence of alcohol, marijuana and/or other drugs in my body. I understand that if these drugs are found to be present in my body that I will be ineligible for employment on the Project and will not be able to take a new drug or alcohol test for ninety (90) days.

I hereby consent and agree to give specimens of my urine. **My refusal to provide such a specimen will prevent me from gaining employment on the Project for ninety (90) days.**

All charges for these tests will be paid for by the Employer and not by me.

Waiver: The results of any test I am required to take may be furnished, in accordance with the terms of this policy, to the Medical Review Officer, the Substance Abuse Prevention Coordinator and my employer. The company may inform the Union that I failed the test only if a grievance is filed in my behalf.

I have read and understood and agree to the above:

Witness Signature

Prospective/Dispatched Worker

Date

Date

Exhibit D

APPENDIX E
INCIDENT REPORT FORM

Employer _____
Employee involved _____
Date of Incident _____ Time of Incident _____
Location of Incident _____
Employee's Job Assignment/Position _____
Has employee been notified of his/her right to Union Representation? _____
Date/Time notified _____
Employee's Initials _____
Witness to incident _____

OBSERVATIONS:

EMPLOYEE'S EXPLANATION:

Action Recommended:

Action Taken:

Signature	Date	Signature	Date
Employee Representative		Union Representative (if present)	
Title		Title	

Date/Time Action taken: _____

SECTION 01 1100 – SUMMARY OF WORK**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SCOPE OF WORK

- A. Abbreviated Written Summary: Briefly and without force and effect upon the Contract Documents, the Work of the Contract can be summarized as follows
1. The project consists of a complex of 9 buildings dedicated to the training of fire fighters in the City of Hayward. The buildings are as follows:
 2. Fire Station #6/Classroom Building (Building 1): Two stories, 20,643 SF including:
 - a. Essential Facility building
 - b. 2-company fire station with 3.5 Apparatus Bays
 - c. Classrooms
 - d. Backup Emergency Operations Center
 - e. Administrative offices
 - f. Vertical circulation, storage, restrooms, and utility support spaces
 - g. Roof-mounted photovoltaic system including inverter(s)
 - h. Fire sprinklers throughout
 - i. Emergency power generator and automatic transfer switch
 - j. Under DSA jurisdiction
 3. Apparatus Building (Building 2): Single story, 8,268 SF including:
 - a. Non-essential services building under DSA jurisdiction
 - b. Steel frame construction
 - c. Vehicle training/storage area in 4 Apparatus Bays. Apparatus parked in this area are retired and no longer in service.
 - d. "Dirty" classroom
 - e. Central Lobby with steel section from the World Trade Center Towers
 - f. Turn out locker rooms, multi-accommodation restrooms with showers
 - g. Workshop
 - h. Utility support spaces
 - i. Fire sprinklers throughout.
 - j. Roof-mounted photovoltaic system including inverter(s)
 4. Hangar Building (Building 3): Single story, 1,512 SF including:
 - a. Non-essential services building
 - b. Steel frame construction
 - c. Open-sided roof shade structure with 1 Apparatus Bay
 - d. Underground fire truck pump test pit
 - e. Apparatus wash-down/maintenance bay with drain(s)
 - f. Non-sprinklered building
 - g. Roof-mounted photovoltaic system including inverter(s)
 5. Storage Building (Building 4): Single story, 1,160 SF including:
 - a. Non-essential services building
 - b. CMU walls with steel roof framing
 - c. Residential-style storage building for Class A combustible materials
 - d. Non-sprinklered building
 6. Burn Building (Building 5): Three stories, 4,732 SF including:
 - a. Non-essential services building
 - b. CMU walls with concrete floor/roof systems

- c. Residential-style Class A burn building
- d. Multi-family space configuration with walk-out basement & accessible attic
- e. Roof-top training space with "cut-able" roof area
- f. Water drainage from each floor level
- g. Walls & floors to be lined with fire liner and fire brick at training scenario locations
- h. Non-sprinklered building
7. Covered Break Area (Building 6): Single story, 1,600 SF including:
 - a. Non-essential services building under DSA jurisdiction.
 - b. Concrete walls with steel roof framing
 - c. Open-sided (3 sides) Covered Break Area.
 - d. Single-occupancy restrooms
 - e. Storage
 - f. Non-sprinklered building
 - g. Roof-mounted photovoltaic system including inverter(s)
8. USAR/BART Training Structure (Building 7): Three stories, 13,715 SF including:
 - a. Non-essential services building
 - b. Concrete columns, beams, and floor systems with CMU in-fill walls
 - c. Confined space, shoring, breaching, and bracing training structure
 - d. Elevated passenger platform with 3-sided glass enclosure and bench
 - e. Elevated light-rail track with functional safety training components (BART train to be Owner-supplied)
 - f. Non-sprinklered building
9. Training Tower (Building 8): Four stories, 11,513 SF including:
 - a. Non-essential services building
 - b. Concrete and CMU walls with concrete floor/roof systems
 - c. Mixed use-style Class B burn building
 - d. Open multi-tenant commercial training space
 - e. Multi-family residential space configuration with enclosed garage and covered carport
 - f. Double-sided central corridor accessing multiple training spaces with moveable partitions
 - g. Roof-top training space with "cut-able" roof area
 - h. Multi-story stair towers, exterior stairs, covered balconies, open balconies, and exterior rappelling platform
 - i. Walls & ceilings to be lined with fire liner and fire brick at training scenario locations
 - j. Water drainage from each floor level
 - k. Specialized emergency exhaust system
 - l. Server/data rooms with interconnected training control system
 - m. LPG piped throughout building to training scenario locations
 - n. Non-sprinklered building
10. Entry Canopy (Building 9): Single story, 1,333 SF including:
 - a. Non-essential services building
 - b. Steel frame construction
 - c. Open-sided roof shade structure over entry gate
 - d. Non-sprinklered building
 - e. Roof-mounted photovoltaic system including inverter(s)
11. The Project is located at 1401 West Winton Avenue, Hayward, CA, as shown on Documents prepared by RossDrulisCusenbery Architecture, dated December 6, 2019.
12. Owner: City of Hayward & Chabot Las Positas Community College District
13. Architect: RossDrulisCusenbery Architecture
14. Owner's Representative: Kitchell CEM
15. College-owned buildings under DSA jurisdiction and City-owned buildings are differentiated and identified on the Drawings.

- 16. Project is designed to comply with a minimum of a LEED Silver Certification Level according to the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) Rating System, as specified in Section 01 8113 "Sustainable Design Requirements."
 - 17. Project will be constructed under a single prime contract
- B. Site demolition Work will be as described in Division 2 and Division 31 and as indicated on Drawings.
- C. City Sole Source Requirements: The Hayward City Council has found and determined that the following item(s) shall be used on this Project based on the purpose(s) indicated. (Public Contract Code section 3400(c).)
- 1. Door Engineering and Manufacturing Bi-fold doors;
 - 2. FireBlast training props;
 - 3. Locution Systems station alerting system;
 - 4. A particular material, product, thing, or service is designated by specific brand or trade name for the following purpose(s):
 - a. In order that a field test or experiment may be made to determine the product's suitability for future use.
 - b. In order to match other products in use on a particular public improvement either completed or in the course of completion.
 - c. In order to obtain a necessary item that is only available from one source.
 - d. In order to respond to an emergency declared by a local agency.

1.3 WORK UNDER OTHER CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.
- B. Concurrent Work by the Owner: The Owner will award separate contract(s) for the following construction operations at the Project site. Those operations will be conducted simultaneously with work under this Contract.
- 1. Furniture Installation: A separate contract will be awarded for the installation of moveable furniture.
 - 2. Radio Equipment Installation: A separate contract will be awarded for the installation of radio equipment including antennae, cabling and radio equipment.
 - 3. Telephone/Data Equipment Installation: A separate contract has been awarded for the installation of telephone/data equipment including telephone/data cabling, telephone/date switches and network equipment.
 - 4. Dispatch Equipment Installation: A separate contract will be awarded for the installation of dispatch equipment including dispatch consoles and cabling.
 - 5. Fireblast Prop Installation: The following identifies equipment and responsibility for installation for each item:

Equipment Description	Fireblast	GC or Other
Manufacture, ship, install and test the live fire trainers defined in this Specification	X	
Propane		
Supply and installation of propane storage tank		X
Supply first stage regulator	X	
Distribution of propane within the burn buildings	X	
Concrete or steel barriers		X
Supply and installation of regulators	X	

Connection from propane stub-up to fire simulator equipment	X	
Concrete or steel barriers		X
Supply and installation of regulators	X	
Electrical		
Provide a service panel to the burn building. The service panel will have adequate electrical power circuits to fulfill the requirements of the system. Power available must be supplied to Fireblast prior to manufacturing. Provide 208/1 Phase, 20 Amp per burn room as a minimum		X
Electrical distribution from the service panel to each electrical connection		X

1.4 CONTRACTOR USE OF PREMISES

- A. Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public.
- B. Coordinate use of premises and access to site with the Owner and Architect.
- C. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
- D. Keep driveways and entrances clear at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize requirements for storage of materials.
- E. Assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site.
- F. Limit use of site for work and storage to areas within the site boundaries unless specific areas are allowed in writing by the Owner.
- G. Move any stored products, under Contractor's control, which interfere with operations of the Landlord, or separate contractor.
- H. If necessary, obtain and pay for the use of additional storage or work areas needed for operations. Unless otherwise agreed upon, on-site storage shall be limited to areas of new construction.
- I. Do not unreasonably encumber space with materials.
- J. Work area must be kept clean and safe at all times.
- K. No propane or similar flammable gas or liquid used in construction is permitted to be stored on the premises. It is to be removed from the premises when not in use during the off hours and weekends.
- L. Repair damage caused by construction operations. Take precautions necessary to protect the building and occupants during the construction period.
- M. Contractors shall submit both home and office numbers to the Owner's Project Manager's office for a minimum of 2 employees in the event they must be contacted during off hours or weekends.

- N. Also refer to other sections, including but not limited to, section 01 5000 "Temporary Facilities and Controls".

1.5 COORDINATION

- A. Coordinate work to assure efficient and orderly sequence of installation of construction elements.
- B. Verify that characteristics of interrelated operation equipment are compatible; coordinate work having interdependent responsibilities for installing, connection to, and placing such equipment in service. Coordinate space requirements and installation of mechanical and electrical work; make runs parallel with lines of building.
- C. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated. Coordinate locations of fixtures and outlets with finish elements.
- D. Coordinate construction schedule and operations with Owner.
- E. Verify all existing conditions prior to bidding and re-verify conditions prior to commencement of any portion of the work. Notify Owner of any discrepancies between the existing conditions and those indicated in the contract documents prior to bidding or commencement of construction activities.
- F. Drawing Coordination: Requirements for materials and products identified on the Drawings are described in detail in the Specifications. One or more of the following are used on the Drawings to identify materials and products:

1.6 FIELD ENGINEERING

- A. Provide project engineering service; establish lines and levels by use of recognized engineering survey practices.
- B. Locate and protect control and reference points.

1.7 REGULATORY REQUIREMENTS AND REFERENCE STANDARDS

- A. Regulatory Requirements: See Section 01 4000
 - 1. Architect has contacted governing authorities and reviewed design requirements of local, state and federal agencies for applicability to Project.
 - 2. Contractor shall be responsible for contacting governing authorities directly for necessary information and decisions bearing upon performance of Work.
- B. Reference Standards: See Section 01 4200
 - 1. For Products specified by association or trade standards, comply with requirements of referenced standard, except when more rigid requirements are specified or are required by applicable codes.
 - 2. Applicable date of each standard is that in effect as of Contract date, except when a specific date is specified.

1.8 SUSTAINABILITY REQUIREMENTS, GENERAL

- A. Resource Efficiency:
 - 1. All products and materials used on the project are to be rapidly renewable and recyclable with the highest recycled content possible.
 - 2. All wood products to be Forest Stewardship Council (FSC) certified.

- B. Energy Conservation:
 - 1. Shading, skylights and overhangs will be optimized to minimize solar gain and promote natural daylighting.
 - 2. Night venting will be utilized throughout the building. An HVAC system will be included for supplemental heating and cooling.
 - 3. Remote refrigeration of all coolers will provide lower operational costs, simplified maintenance, and reduced noise and heat within occupied spaces.
 - 4. Variable speed kitchen hoods will reduce HVAC loads and provide optimal ventilation.
 - 5. The building shall include infrastructure for future solar hot water and photovoltaic systems.

- C. Interior Air Quality:
 - 1. All interior components and finishes are to be free of formaldehyde and other harmful agents, and have low- or no-V.O.C.'s.
 - 2. Provide material safety data sheets (MSDS) for all products that may contain hazardous materials.

1.9 ENVIRONMENTAL PROTECTION AND NOISE CONTROL

- A. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from the project site during the course of the project.
 - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
 - 5. See Section 01 3544.

- C. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion. See Section 01 5639.

- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Owner's Representative not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Owner's Representative's written permission before proceeding with disruptive operations.

1.10 ORDERING OF MATERIALS

- A. Certain materials are considered custom or long-lead items and must be expedited through submittals and ordering. Contractor shall verify delivery for all materials and schedule submittals and orders accordingly.

- B. Contractor shall provide written verification that each custom or long-lead item has been ordered in sufficient time to meet proposed construction schedule.

1.11 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
 - 2. Comply with restrictions to Airport Operations Area (AOA)
 - a. No one shall enter the AOA, no exceptions
 - b. Contractor shall comply with all FAA regulations and best practices

- B. On-Site Work Hours:
The following is a summary of the various hours for contractor’s operation for the project. It is the Contractor’s responsibility to read the details and requirements in each section mentioned in the table. Any deviation from these hours requires written approval of the Owner.

DESCRIPTION	HOURS	DAYS
Contractor’s Normal Working or Normal Inspection Hours	7:30 a.m. to 4:30 p.m.	Weekdays except trade union holidays
Sound Control (Noise level may exceed 6 dba above the ambient noise in residential areas only during the hours shown)	7:00 a.m. to 7:00 p.m.	Daily
	10:00 a.m. to 6:00 p.m.	Sundays and designated legal holidays*
Traffic Control for Lane Closure	8:00 a.m. to 4:00 p.m.	Monday through Friday except designated legal holidays

*Same as the “designated legal holidays” defined in “Maintaining Traffic”

- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Owner’s Representative not less than two days in advance of proposed utility interruptions.
 - 2. Obtain Owner’s Representative written permission before proceeding with utility interruptions.
- D. Nonsmoking Building: Smoking is not permitted within the buildings or within 25 feet (8 m) of entrances, operable windows, or outdoor air intakes.
- E. Controlled Substances: Use of tobacco products and other controlled substances on the Project site is not permitted.

1.12 CERTIFICATE OF SUBSTANTIAL COMPLETION

- A. Certificate of Substantial Completion will be executed for the Work occupied. See Section 01 7700
- B. Prior to Owner occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed.

- C. Obtain partial Certificates of Occupancy from local building officials to allow partial Owner occupancy in the following order:
 - 1. Partial Certificates of Occupancy for each building completed prior to final completion of the project.
 - 2. Final Certificate of Occupancy for completion of the project.

1.13 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the CSI/CSC's "Master Format" numbering system.
 - 1. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 1100

SECTION 01 2513 – PRODUCT SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

1.2 PRODUCTS

- A. ~~"Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock.~~
- B. ~~"Named Products" are items identified by manufacturer's product name, including make or model designation indicated in the manufacturer's product literature.~~
- C. ~~"Materials" are products that are shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.~~
- D. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.3 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming a Single Manufacturer: Where materials and methods are specified by naming one single manufacturer or model number, without stating that equal products will be considered, only the material and method named is approved for incorporation into the Work.
- C. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- D. Products Specified by Naming one or More Manufacturers with a Provision for Substitutions: Submit a request for substitution, during Bidding only, for any manufacturer not named.
- E. Accepted Equivalents/Or Equal: Where materials and methods are specified by name or model number, followed by the words "or equal approved by the Architect", materials and methods proposed by the Contractor to be used in lieu of the named materials and methods shall in all ways be equal or exceed the qualities of the named materials and methods.
 - 1. Where the phrase "or equal," or "or equal as approved by the Architect," occurs in the Contract Documents, do not assume that the materials, equipment or methods will be approved as equal unless the item has been specifically so approved for this Work by the Architect.
- F. The decision of the Architect shall be final.

1.4 SUBSTITUTIONS

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
- B. When the Contractor has the option of selecting between two or more products, the product selected shall be compatible with products previously selected.
- C. Semi-proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
- D. Where products are specified by name, accompanied by the term "or approved equal" comply with provisions herein for substitution submittals to obtain approval for use of an unnamed product.
- E. Descriptive Specification Requirements: Where Specifications describe a product, listing characteristics required, with or without use of a brand name, provide a product that provides the characteristics and otherwise complies with requirements.
- F. Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Contractor after award of the Contract are considered requests for "substitutions." The following are not considered substitutions:
 - 1. Substitutions requested during the bidding period, and accepted prior to award of Contract.
 - 2. Revisions to Contract Documents requested by the Owner or Architect.

3. Specified options of products and construction methods included in Contract Documents.
4. Compliance with governing regulations and orders issued by governing authorities.

G. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor through Construction Manager of approval or rejection of proposed comparable product request within 15 <Insert time> days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Division 1 Section "Submittal Procedures."
 - b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.

H. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

1.5 SUBSTITUTION REQUEST REVIEW

- A. Requests for substitutions, submitted by the Contractor after commencement of construction, will be reviewed at the Architect's standard hourly rate, charged to the Contractor as appropriate to the request.
- B. The Contractor's substitution request will be received and considered by the Architect when one or more of the following conditions are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.
 1. Extensive revisions to Contract Documents are not required.
 2. LEED requirements are not changed or negatively impacted.
 3. Proposed changes are in keeping with the general intent of Contract Documents.
 4. The request is timely, fully documented and properly submitted.
 5. The request is directly related to an "or equal" clause or similar language in the Contract Documents.
 6. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 7. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
 8. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or separate contractors, and similar considerations.
 9. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 10. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.

11. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warranty.

C. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

1.6 SUBSTITUTION SUBMITTALS

A. Pre-bid substitution requests will not be considered. No Substitution request will be accepted or considered by City of Hayward prior to bid.

B. Requests for substitutions will be considered if received within 35 days of the date of the Notice of Award. Requests received more than 35 days after the date of Notice of Award may be considered or rejected at the discretion of the Architect.

C. Submit Substitution Request packages using the form provided and in the specified quantity to be returned to the Contractor plus four (4) copies of each request for substitution for review by the Architect. Substitution Request Form: Use 01 2513A following this Section.

D. Identify the product, or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Document compliance with requirements for substitutions, and the following information, as appropriate:

1. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.

2. Samples, where applicable or requested.

~~3. A side-by-side comparison of significant qualities of the proposed substitution with those specified.~~

~~a. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.~~

~~4-3. All variations of the proposed substitute from the material specified including, but not limited to, principles of operation, materials, or construction finish, thickness or gauge of materials, dimensions, weight, and tolerances.~~

~~4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.~~

5. A list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Contractors that will be necessary to accommodate the proposed substitution.

~~a. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.~~

~~b. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.~~

~~6. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.~~

~~6-7. A statement indicating the substitution's effect on the Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.~~

~~7-8. Cost information, including a proposal of the net change, if any in the Contract Sum.~~

- ~~8-9.~~ Certification that the substitution is equal-to or better in every respect to that required by Contract Documents, and that it will perform adequately in application indicated. Include Contractor's waiver of rights to additional payment or time that may be necessary because of the substitution's failure to perform adequately.
- ~~9-10.~~ Provide all documentation for DSA approval related to the substitution. The may include revised structural backing details.
- ~~10-11.~~ The Contractor waives claim for additional costs and time associated with the proposed product, which may subsequently become apparent.
- ~~11-12.~~ The Contractor shall provide a signed statement that the proposed product is in full compliance with the Contract Documents, and applicable regulatory requirements, requires no changes to specified controls and monitoring systems that may be specified in other Sections, and Certify that the Contractor will be responsible for coordination at no additional expense to the Owner
- ~~12-13.~~ The Contractor shall provide information on availability of maintenance service, repair and source of replacement materials, and provide a sample of Manufacturer's standard form of guarantee or warranty for proposed product.
- a. Increases or decreases in operating, maintenance, repair, replacement, and spare parts costs;

1.7 ARCHITECT'S ACTION

- A. Within ~~one week~~ **7 calendar days** of receipt of the request for substitution, the Architect will request additional information necessary for evaluation. **Within 7 calendar days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 calendar days of receipt of request, or 7 calendar days of receipt of additional information or documentation, whichever is later.** ~~Within 2 weeks of receipt of the request, or one week of receipt of additional information, whichever is later, the Architect will notify the Contractor of acceptance or rejection.~~ If a decision on use of a substitute cannot be made within the time allocated, use the product specified. Acceptance will be in the form of a Change Order.
- B. No consideration will be given to a substitute product unless, in the Architect's judgment, it complies with the following conditions.
1. Substitution Request is complete.
 2. It is equal in quality, performance and serviceability.
 3. Its use does not entail changes in details or related construction.
 4. It is acceptable in regards to design and aesthetic effect.
 5. There is a cost and/or time advantage to the Owner.
- C. Acceptance of a product shall not relieve the Contractor from responsibility for the proper execution of the Work and any other requirements of the Contract Documents.
- D. If a proposed product is not accepted, use the product originally specified or indicated in the Contract Documents. Contractor shall furnish the product specified in the Specifications without any additional compensation or change order.
- E. No products other than those indicated or specified in the Contract
- F. Documents shall be purchased or incorporated in the Work without the Architect's prior written acceptance.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Conditions: The Contractor's substitution request will be received and considered by the Architect when one (1) or more of the following conditions are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.
1. Extensive revisions to Contract Documents are not required.
 2. Proposed changes are in keeping with the general intent of the Contract Documents.
 3. The request is timely, fully documented and properly submitted.
 4. The request is directly related to an "or equal" clause or similar language in the Contract Documents.
 5. The Specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 6. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
 7. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or Separate Contractors, and similar considerations.
 8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 9. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
 10. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provides the required warranty.
- B. No substitutions shall be made until approved, in writing, by the Architect. The burden of proof as to equality of any material, process, or article shall rest with Contractor. The Contractor warrants that if substitutes are approved:
1. The proposed substitute is equal or superior in all respects to that specified, and that such proposed substitute is suitable and fit for the intended purpose and will perform adequately the function and achieve the results called for by the general design and the Contract Documents;
 2. The Contractor provides the same warranties and guarantees for the substitute that would be provided for that specified;
 3. The Contractor shall be fully responsible for the installation of the substitute and any changes in the Work required, either directly or indirectly, because of the acceptance of such substitute, with no increase in Contract Price or Contract Time. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time;
 4. The Contractor shall be responsible for any re-design costs occasioned by Owner's acceptance and/or approval of any substitute; and
 5. The Contractor shall, in the event that a substitute is less costly than that specified, credit the Owner with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit.

- C. In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.
- D. In no event shall the Owner be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.
- E. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents, does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 2513

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**SUBSTITUTION
REQUEST
(After the Bidding Phase)**

Project: Insert project name Substitution Request Number: For the Architect to fill in
 From: Insert your name and company name
 To: Insert name of Architect, Engineer or GC Date: Insert the current date
 A/E Project Number: Fill in if you know the number
 Re: Substitution request Contract For: Insert your contract scope (in general)

Specification Title: Insert spec title from specification book Description: Copy section title from specification
 Section: Copy from spec book Page: insert page Article/Paragraph: insert para

Proposed Substitution: _____
 Manufacturer: _____ Address: _____ Phone: insert plant phone number
 Trade Name: _____ Model No.: _____)
 Installer: insert subs company Address: insert subs address Phone: insert subs phone number
 History: New product 2-5 years old 5-10 years old More than 10 years old

Differences between proposed substitution and specified product: _____

X Point-by-point comparative data attached - REQUIRED BY A/E.

Reason for not providing specified item: _____

Similar Installation:
 Project: List a completed project Architect: Insert name of Architect on completed project
 Address: Insert project address Owner: Insert name of Owner on completed project
 Date Installed: _____

Proposed substitution affects other parts of Work: X No Yes; explain _____

Savings to Owner for accepting substitution: _____ (\$ _____).

Proposed substitution changes Contract Time: No Yes [Add] [Deduct] _____ days.

**SUBSTITUTION
REQUEST
(Continued)**

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____ Insert submitters name, normally project manager for sub

Signed by: _____ Submitter to sign

Firm: _____ InsertSubmitters company name

Address: _____ Insert

Telephone: _____ Insert company phone number

Attachments: _____ List name of attachments

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01330.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by:

Date:

Additional Comments: Contractor Subcontractor Supplier Manufacturer A/E _____

SECTION 01 2600 – CONTRACT MODIFICATION PROCEDURES

PART 1 - General

1.01 SUMMARY

- A. Section includes requirements that supplement other sections of the Contract Documents including, but not limited to, Document 00 72 13 (General Conditions).
- B. Description of procedures for modifying the Contract Documents and determining costs for changes in contract amounts.

1.02 MINOR CHANGES IN THE WORK

- A. City may issue Bulletins (known as Supplemental Instructions) authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on accepted standard form. Supplement Instructions may also be issued for the purpose of clarifying the Contract Documents based on an interpretation reasonably inferable from the Contract Documents. Proceeding with Work according to Supplemental Instructions indicates acceptance with no change to the Contract Sum or Contract Times. Contractor to notify City in writing within seven (7) calendar days of receipt if Contractor believes Bulletin to result in a change to Contract Sum or Contract Times.

1.03 PROCEDURES FOR CONTRACTOR INITIATED CHANGE ORDER

- A. Contractor-Initiated Change Order Request (COR) and Procedures:
 - 1. Contractor may initiate changes by submitting a Change Order Request (“COR”).
 - 2. Whenever Contractor elects or is entitled to submit a COR, Contractor shall prepare and submit to City for consideration a COR using the format included in this Project Manual. All CORs must contain a complete itemized breakdown of costs of credits, deducts and extras; itemizing materials, labor, taxes, Markup and any requested changes to Contract Time. All Subcontractor Work shall be so indicated. Individual entries on the COR form shall include applicable Schedule of Values code, with all amounts determined as provided herein. After receipt of a COR with a detailed breakdown, City will act promptly thereon.
 - 3. All CORs must include the following certification by the Contractor:

“The undersigned Contractor approves the foregoing as to the changes, if any, and the Contract Price specified for each item and as to the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete any additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code Section 12650 et seq. It is understood that the changes herein to the Contract shall only be effective when approved by the Owner.

It is expressly understood that the value of the extra Work or changes expressly includes any and all of the Contractor’s costs and expenses, both direct and indirect, including inefficiencies resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.”

Whether language above is included on the COR form or not, any approval and/or direction provided by the City is based upon these conditions.

4. If City accepts a COR, City will prepare a Change Order for City and Contractor signatures.
 5. If COR is not acceptable to City because it does not agree with Contractor's proposed cost and/or time, City will provide comments thereto. Contractor will then, within seven (7) calendar days (except as otherwise provided herein), submit a revised COR.
 6. When necessity to proceed with a change does not allow City sufficient time to conduct a proper check of a COR (or revised COR), or to draft and execute a Change Order, City may issue a Construction Directive (CD) as provided below.
- B. Contractor-Initiated Request for Information (RFI) Procedures, Requirements and Limitations (also refer to section 01 3131 "Request for Information"):
1. Contractor may submit RFI's for clarifications of Contract Documents, which may result in the Contractor submitting a COR.
 2. Whenever Contractor requires information regarding the Project or City-prepared Contract Documents, or receives a request for such information from a Subcontractor, Contractor may prepare and deliver an RFI to City. Contractor shall use RFI format provided in the project management software, including filling out all required fields (or RFI may be returned as incomplete). Contractor shall not issue an RFI to City solely to clarify Contractor-prepared Construction Documents. Contractor must submit time critical RFIs at least 30 calendar days before scheduled start date of the affected Work activity (or earlier if it impacts start of procurement, or procurement duration, of related materials). Contractor shall reference each RFI to an activity of Progress Schedule and shall note time criticality of the RFI, indicating time within which a response is required. Contractor's failure to reference RFI to an activity on the Progress Schedule and note time criticality on the RFI shall constitute Contractor's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI.
 3. Contractor shall be responsible for its costs to implement and administer RFIs throughout the Contract duration. Regardless of the number of RFIs submitted, Contractor shall not be entitled to additional compensation for the effort required to submit the RFIs. Contractor shall be responsible for City's administrative costs for answering RFIs where the answer could reasonably be found by reviewing the Contract Documents, as determined by City; at City discretion, such costs may be deducted from progress payments or final payment.
 4. City will respond within seven (7) calendar days from receipt of RFI with a written response to Contractor. Contractor shall distribute response to all appropriate Subcontractors.
 5. If Contractor is satisfied with the response and does not request a change in Contract Sum or Contract Time, then the response shall be executed without a change.
 6. If Contractor believes the response is incomplete, Contractor shall issue another RFI (with the same RFI number with the letter "a" indicating it is a follow-up RFI) to City clarifying original RFI. Additionally, City may return RFI requesting additional information should original RFI be inadequate in describing condition.
- C. Time Requirements:
1. If Contractor believes that a City response to an RFI, submittal or other City direction, results in change in Contract Sum or Contract Time, Contractor shall notify City with the issuance

of a preliminary COR within seven (7) calendar days (or sooner if related work falls along, or near, the critical path of the schedule) after receiving City's response or direction, and in no event after starting the disputed work or later than the time allowed under Article 25 of Document 00 7213 (General Conditions). If Contractor also requests a time extension, or has issued a notice of delay or otherwise requests a time extension with a COR, then Contractor shall submit a Time Impact Evaluation (TIE) required herein concurrently with the COR and in no event later than seven (7) calendar days after providing the notice of delay.

2. If Contractor requires more time to accurately identify the required changes to the Contract Sum or Contract Time, Contractor may submit an updated and final COR and TIE within 14 calendar days of submitting the preliminary COR.
3. If City agrees with Contractor's COR and/or TIE, then City will prepare a Change Order for City and Contractor signatures. If City disagrees with Contractor, then Contractor may give notice of potential claim as provided in Article 25 of Document 00 72 13 (General Conditions), and proceed thereunder.
4. Contractor must submit CORs, notices of potential claim or Claims within the required time periods. Any failure to do so waives Contractor's right to submit a COR or file a Claim.

D. Cost Estimate Information:

1. Contractor and subcontractors shall, upon City's request, permit inspection of the original unaltered cost estimates, subcontract agreements, purchase orders relating to the change, and documents substantiating all costs associated with its COR or Claims arising from changes in the Work.

1.04 PROCEDURES FOR CITY INITIATED CHANGE ORDERS

A. City Initiated Construction Directives (CD):

1. A Construction Directive is a written order prepared and issued by the Owner, or the Construction Manager, and signed by the Owner. The Owner, through a Construction Directive, may as provided by law and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions (with or without adjustment to Contract Sum or Contract Time). Contractor will perform the work set forth in the Construction Directive without delay. Any dispute as to the sum of the Construction Directive or impact to the construction schedule shall be resolved pursuant to Section 25 Claims and Disputes herein.
2. The Owner may also issue a Construction Directive in the absence of agreement with the Contractor on whether the ordered work is a change in the Work. The Owner can issue a Construction Directive for the Contractor to perform the disputed work and track the cost on a Force Account (Time and Material) basis as set forth herein.
3. If the Change in or addition to the Work will possibly result in an increase in the Contract Sum, the Owner shall have the right to require the performance thereof on a Lump Sum basis or a Force Account (Time and Material) basis, all as hereinafter more particularly described. The right of the Owner as aforesaid shall apply with respect to each Change in the Work.
4. If at any time City believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, or at any other time, City may issue a CD with

its recommended cost and/or time adjustment (if any). Upon receipt of CD, Contractor shall promptly proceed with the change of Work involved and respond to City within ten (10) calendar days.

5. Contractor's response must be any one of following:
 - a. Return CD signed, thereby accepting City response, including adjustment to time and cost (if any).
 - b. Submit a (revised if applicable) Change Order Request with supporting documentation (if applicable, reference original Change Order Request number followed by letter A, B, etc. for each revision), if City so requests.
 - c. Give notice of intent to submit a claim as described in Article 25 of Document 00 72 13 (General Conditions), and submit its claim as provided therein.
 6. If COR or the CD provides for an adjustment to any Contract Sum, the adjustment shall be based on one of the following methods:
 - a. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
 - b. Contractor to proceed on cost reimbursable (Force Account or Time and Material) basis while negotiating towards a firm price.
 - c. Cost to be determined in a manner agreed.
 7. Construction Directive signed by Contractor indicates the agreement of Contractor therewith, including adjustment in Contract Sum or the method for determining them. Such agreement shall be effective immediately and shall be finalized as a Change Order (or in the event of a time and material directive, once the final value is calculated and accepted).
 8. Where City authorizes CD work on a time and materials basis up to a maximum amount, then Contractor shall promptly advise City in writing upon reaching 75% of such maximum amount, otherwise Contractor shall accept fully the risk of completing the CD work without exceeding such maximum amount.
 9. If Contractor does not respond promptly or disagrees with the method for adjustment (or non-adjustment) in the Contract Sum, the method and the adjustment shall be determined by City on the basis of the Contract Documents and the reasonable expenditures and savings of those performing the Work attributable to the change. If the parties still do not agree on the proper adjustment due to a Construction Directive, Contractor may file a Claim per Article 25 of Document 00 7213 (General Conditions) and/or City may direct the changed work through a unilateral change order. Contractor shall keep and present an itemized accounting in a manner consistent with the SOV, together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this paragraph shall be limited to those provided herein.
 10. Pending final determination of cost to City, Contractor may include related contractual amounts not in dispute in its Applications for Payment. The amount of credit to be allowed by Contractor to City for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by City. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for Markup shall be figured on the basis of net increase, if any, with respect to that change.
- B. City Initiated Change Order (CO) or Request for Proposal (RFP):
1. City may initiate changes in the Work or Contract Time by issuing a Bulletin (known as a Request for Proposal ("RFP") or Change Order ("CO") to Contractor.

2. City may issue an RFP to Contractor. Any RFP will detail all proposed changes in the Work and request a quotation of changes in Contract Sum and Contract Time from Contractor.
3. The Contractor shall not be entitled to any additional compensation for preparing a response to a Price Request, whether ultimately accepted or not.
4. In response to an RFP, Contractor shall furnish a Change Order Request (COR) within seven (7) calendar Days of City's RFP (or sooner if work relates to activities on or near the critical path). Upon approval of COR, City may issue a Change Order or Construction Directive directing Contractor to proceed with extra Work.
5. If the parties do not agree on the price or time for a COR, City may either issue a CD or decide the issue per Article 25 of Document 00 72 13 (General Conditions). Contractor shall perform the changed Work notwithstanding any claims or disagreements of any nature.

1.05 PROCEDURES THAT APPLY TO CONTRACTOR- AND CITY-INITIATED CHANGE ORDERS:

A. Adjustment of Schedules to Reflect Change Orders:

1. Contractor shall revise Schedule of Values and Application for Payment forms to record each executed Change Order with each COR as a separate line item and adjust the Contract Sum as shown thereon prior to the next monthly pay period.
2. Contractor shall revise the Progress Schedules prior to the next monthly pay period, to reflect CO.
3. Contractor shall enter changes in Project Record Documents prior to the next monthly pay period.

B. Required Documentation for Adjustments to Contract Amounts:

1. For all changes and cost adjustments requested, Contractor shall provide documentation of change in Contract Amounts asserted, with sufficient data to allow evaluation of the proposal.
2. In all requests for compensation, cost proposals, estimates, claims and any other calculation of costs made under the Contract Documents, Contractor shall breakout and quantify costs of labor, equipment and materials identified herein, for Contractor and subcontractors of any tier.
3. Contractor shall, on request, provide additional data to support computations for:
 - a. Quantities of products, materials, labor and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Justification for any change in Contract Time (including an acceptable Time Impact Evaluation) and new Progress Schedule showing revision due, if any.
 - d. Credit for deletions from Contract, similarly documented.
4. Contractor shall support each claim or computation for additional cost, with additional information including:
 - a. Origin and date of claim or request for additional compensation.
 - b. Dates and times Work was performed and by whom.
 - c. Time records and wage rates paid.

- d. Invoices and receipts for products, materials, equipment and subcontracts, similarly documented.
 - e. Credit for deletions from Contract, similarly documented.
- C. Responses and Disputes:
- 1. For all responses for which the Contract Documents do not provide a specific time period, recipients shall respond within a reasonable time.
 - 2. For all disputes arising from the procedures herein, Contractor shall follow Article 25 of Document 00 72 13 (General Conditions).

1.06 COST DETERMINATION FOR CHANGES IN CONTRACT AMOUNTS

- A. Calculation of Total Cost of Extra Work:
- 1. Total cost of changed Work, extra Work or of Work omitted shall be the sum of three components defined immediately below as: Component 1 (Direct Cost(s)); Component 2 (Markup); and, Component 3 (bonds and insurance)
 - 2. Cost Component 1: Direct Cost(s) of labor, equipment and materials, is calculated based upon actually incurred (or omitted) labor costs, material costs and equipment rental costs, as defined herein;
 - 3. Cost Component 2: Markup on such actually incurred Direct Costs, is applied in the percentages identified below; and
 - 4. Cost Component 3: Actual additional costs for any additionally required insurance and bonds is calculated without Markup.

1.07 MEASUREMENT OF DIRECT COST OF CONSTRUCTION (COST COMPONENT NO. 1)

- A. Composition of Component 1 (Direct Cost of Construction):
- 1. Component 1 has four subcomponents, also referred to as "LEMS":
 - a. Labor (Component 1A)
 - b. Equipment (Component 1B)
 - c. Materials (Component 1C)
 - d. Subcontractors (Component 1D)
- B. Measurement of Cost of Labor (Component 1A):
- 1. Cost of Labor shall be calculated as: Cost of labor for workers (including forepersons when authorized by City) used in actual and direct performance of the subject work, whether employer is Contractor, Subcontractor or other forces, in the sum of the following:
 - a. Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
 - b. Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages as defined, such as worker's compensation insurance. Such labor surcharge shall not exceed generally accepted standards in the State for labor rates in effect on date upon which extra Work is accomplished.
 - c. Cost of labor shall include no other costs, fees or charges (including insurance other than Workers' Compensation Insurance).

- d. Contractor to provide complete submittal of proposed labor rates for all workers including all tiers of subcontractors (for review and acceptance by the City) prior to the pre-construction meeting.
 2. Labor cost for operators of equipment owned and operated by Contractor or any Subcontractor, shall be no more than rates of such labor established by collective bargaining agreements for type of worker and location of Work, whether or not owner-operator (Contractor or Subcontractor) is actually covered by such an agreement.
 3. Cost of labor shall be recorded and documented in certified payroll records, maintained in the form customary and/or required in the State. Contractor shall provide redacted copies of supporting payroll records in a timely manner if requested by the City.
- C. Measurement of Cost of Equipment (Component 1B):
1. Measurement of Component 1B (Cost of Equipment). Cost of Equipment shall be calculated as: Cost of Equipment used in actual and direct performance of the subject work, whether by Contractor, Subcontractor or other forces. Cost of Equipment shall be calculated as herein described.
 2. For rented equipment, cost will be based on actual rental invoices, appropriate for the use and duration of the work. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by City.
 3. Equipment rental cost for Contractor or Subcontractor-owned equipment, shall be determined by reference to, and not in excess of, the generally accepted standards in the State for equipment rental rates in effect on date upon which extra Work is accomplished. If there is no applicable rate for an item of equipment, then payment shall be made for Contractor- or Subcontractor-owned equipment at rental rate listed in the most recent edition of the CalTrans Standard Schedules and Specifications, and absent a rental rate therein, then the Association of Equipment Distributors (AED) book.
 4. In all cases, rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.
 5. Unless otherwise specified, manufacturer's ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates. Individual pieces of equipment or tools not listed in said publication and having a replacement value of \$1000 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore as payment is accounted for in payment for labor. Rental time will not be allowed while equipment is inoperative due to breakdowns.
 6. For equipment on Site, rental time to be paid for equipment shall be time equipment is in operation on extra Work being performed or on standby as approved by City. The following shall be used in computing rental time of equipment:
 - a. When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.
 - b. When daily rates are listed, less than four hours of operation shall be considered to be ½ Day of operation.
 - c. Rates shall correspond to actual rates paid by Contractor, i.e., if Contractor pays lower weekly or monthly rates, then same shall be charged to City.

7. For equipment that must be brought to Site to be used exclusively on extra Work, cost of transporting equipment to Site and its return to its original location shall be determined as follows:
 - a. City will pay for costs of loading and unloading equipment.
 - b. Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
 - c. Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission or appropriate State Dept. of Transportation.
 - d. City will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
 - e. Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which City directs Contractor to discontinue use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and City legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four hours for zero hours of operation, six hours for four hours of operation and eight hours for eight hours of operation, time being prorated between these parameters. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight less number of hours equipment is inoperative due to breakdowns.
8. Employee vehicles and/or vehicles not specifically required to execute the referenced work are not part of Component 1A, rather, are accounted for within Component 2 (Markup).
9. Equipment costs shall include no other costs, fees or charges.

D. Measurement of Cost of Material (Component 1C):

1. Cost of Material shall be calculated as herein described. Cost of such materials will be cost to purchaser (Contractor, Subcontractor or other forces) from supplier thereof, except as the following are applicable:
2. If cash or trade discount by actual supplier is offered or available to purchaser, it shall be credited to City notwithstanding fact that such discount may not have been taken.
3. For materials salvaged upon completion of Work, salvage value of materials shall be deducted from cost, less discounts, of materials.
4. If cost of a material is, in opinion of City, excessive, then cost of material shall be deemed to be lowest current wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in this Paragraph.
5. Material costs shall include no other costs, fees or charges. A set % value for "consumables" will not be allowed – all such costs shall be accounted for in the itemized breakdown of costs.

E. Measurement of Cost of Subcontractors (Component 1D):

1. Where reimbursed or calculated per the terms of the Contract Documents, change order or Construction Directive, cost of Subcontractors shall be calculated as amounts earned by Subcontractors procured in compliance with the Contract Documents and approved by the City, provided such subcontractor earned amounts meet the following requirements:
 - a. Such amounts are earned under the terms of the Subcontracts and the Work complies with the terms of the Contract Documents;

- b. Such amounts are properly requested, documented and permitted under the terms of the subcontract(s) and the Contract Documents.
- c. Total cost to City of Direct Costs of Construction (labor, equipment, materials) and Markup, conform to contract limitations (i.e., totals paid by City do not exceed the 20% Markup limitation.).

1.08 MEASUREMENT AND PAYMENT OF MARK UP (COST COMPONENT 2)

A. Markup Percentages for Changed Work (Component 2):

1. Markup on Direct Cost of labor, materials for extra work performed by the General Contractor shall be 15% for overhead and profit. Markup on Direct Cost of equipment for extra Work shall be 15%.
2. When extra Work is performed by Subcontractors, total Markup on "Component 1" Direct Costs shall not exceed 15% for overhead and profit. (Contractor and its Subcontractors shall divide the 15% as they may agree, suggested breakdown: 10% to the sub-contractor, 5% to the General Contractor).
3. When extra Work is performed by sub-sub-contractors, total Markup on "Component 1" Direct Costs shall not exceed 20% for overhead and profit, regardless of the number of tiers. (Contractor and its Subcontractors shall divide the 20% as they may agree, suggested breakdown: 10% to sub-sub-contractor, 5% to sub-contractor, 5% to General Contractor.)
4. Under no circumstances shall the total Markup on any extra Work exceed twenty (20) percent, stated as a percent of the Direct Cost of labor, equipment and materials. This limitation shall apply regardless of the actual number of subcontract tiers.
5. On proposals covering both increases and decreases in Contract Sum, Markup shall be allowed on the net increase only as determined above. When the net difference is a deletion, no percentage for Markup shall be allowed, but rather an appropriate percentage deduction shall be issued in the amount of the net difference.

B. Measurement and Payment of Mark Up (Component 2):

1. Mark Up (Component 2) provides **complete** compensation to Contractor for:
 - a. All Contractor profit;
 - b. All Contractor home-office overhead;
 - c. All Contractor assumption of risk assigned to Contractor under the Contract Documents;
 - d. Subject to the qualifications below regarding self-performed work, all General Conditions and General Requirements.
2. Profit. Compensation for profit included within Component 2 (Mark Up), includes without limitation: Fees of all types, nature and description; and profit and margins of all types, nature and description.
3. Home Office Expenses. Compensation for home office expenses included within Component 2 (Mark Up), includes without limitation: Salaries and other compensation of any type of Contractor's personnel (management, administrative and clerical), and all direct and indirect operating, travel, payroll, safety, storage, quality control, maintenance and overhead costs of any nature whatsoever, incurred by Contractor at any location other than the Project specific site office, including without limitation, Contractor's principal or branch offices; insurance premiums other than those for Project specific insurance directed by the City in a change order; all hardware, software, supplies and support personnel necessary or

convenient for Contractor's capture, documentation and maintenance of its costs and cost accounting data and cost accounting and control systems and work progress reporting.

4. **Assumption of Risk.** Compensation for Contractor's assumption of risk under the Contract Documents, included within Component 2 (Mark Up), includes without limitation loss, cost, damage, expense or liability resulting directly or indirectly from any of the following causes ("unallowable costs"), for Contractor and subcontractors of any tier: noncompliance with the Contract Documents, fault or negligence, defective or non-conforming Work, by Contractor or any Subcontractor or Vendor of any tier or anyone directly or indirectly employed by any of them, or for whose acts or omissions any of them are responsible or liable at law or under the Contract Documents; cost overruns of any type; costs in excess of any lump sum, not to exceed amount or GMP; costs resulting from bid or "buy out" errors, unallocated scope, or incomplete transfer of scope or contract terms to subcontractors; any costs incurred by Contractor relating to a Change in the Work without a Change Order or Change Directive in accordance with the Contract Documents; costs for work or materials for which no price is fixed in the Contract Documents, unless it is expressly specified that such work or material is to be paid for as extra work.
5. **General Conditions and Division 1 General Requirements.** Compensation for Contractor's General Conditions and General Requirements Costs included within Component 2 (Mark Up), includes compensation to Contractor for: Contractor's direct costs, without overhead or profit, for salaries and related forms of compensation and employer's costs for labor and personnel costs, of Contractor's employees and subconsultant's employees (if any), while and only to the extent they are performing Work at the Project Site. Personnel and Work compensated by this Component include without limitation: All required Project management responsibilities; all on-site services; monthly reporting and scheduling; routine field inspection of Work; general superintendence; general administration and preparation of cost proposals (CORs), schedule analysis and other supporting documentation as necessary; salaries of project superintendent, project engineers, project managers, safety manager, other manager, timekeeper, and secretaries; all cost estimates and updates thereto; development, validation and updates to the project schedule; surveying; estimating. Compensation for Contractor's General Requirements Costs included within Component 2 (Mark Up), compensates Contractor for its "General Requirements" Costs, including without limitation: all scheduling hardware, software, licenses, equipment, materials and supplies; purchase, lease or rental, build out, procurement, supporting equipment and maintenance of temporary on-Site facilities, Project field and office trailers and other temporary facilities, office equipment and supporting utilities; platforms, fencing, cleanup and jobsite security; temporary roads, parking areas, temporary security or safety fencing and barricades, etc.; all Contractor's motor vehicles used by any Contractor's personnel, and all costs thereof; all health and safety requirements, required by law or City procedures; all surveying; all protection of Work; handling and disposal fees; final cleanup; repair or maintenance; other incidental Work; all items, activities and function similar to any of those described above; all travel, entertainment, lodging, board and the like.
6. Personnel compensated by the Markup Component do not include workers of foreman level or below in the case of self-performed work; rather, such personnel shall be treated as a Direct Cost of Construction. Costs compensated by the Markup component do not include temporary measures specifically required by the changed work, not otherwise required or ongoing in the prosecution of the Work, that commence specifically to support the changed work and conclude with the completion of the changed work. Such costs shall be treated as Direct Costs of Construction. Examples of General Requirements costs that this component may not cover are the following: temporary barricades or fencing of specific areas required specifically for the changed work; cranes required specifically for the changed work; extra security required specifically for the changed work.

1.09 MEASUREMENT AND PAYMENT OF BONDS AND INSURANCE (COST COMPONENT 3)

A. Measurement of Bonds and Insurance (Component 3):

1. Component 3 (Bonds, Insurance) consists of the cost of bonds and insurance (with the exception of workers compensation insurance which is to be included in the labor rate). No additional costs shall be included for Bonds if Change Orders total less than 10% of the original Contract value (original bonds provided are for 110% of the original Contract Value).
2. There is no mark up on Cost Component 3.

1.10 EFFECT OF PAYMENTA. Change Order Compensation is **All Inclusive**.

1. Except as provided expressly below regarding changes that extend the Contract Time, payment of calculated cost of extra work constitutes full and complete compensation for costs or expense arising from the extra Work, and is intended to be all inclusive.
2. Payment for Direct Cost of Construction (Component 1 or LEMS) is intended to be all-inclusive. Any costs or risks not delineated within cost of labor, equipment or materials herein, shall be deemed to be within the costs and risks encompassed by the applicable Markups and unallowable in any separate amount.
3. Payment of Markup (Component 2) is intended to be all-inclusive. Contractor waives claims for any further or different payment of cost and risk items delineated herein, other than the allowable percentage markup on costs set forth in the Contract Documents; such separate, further or different cost or risk items shall be unallowable, waived and liquidated within the allowable percentage markup.
4. Contractor shall recover no other costs or markups on extra work of any type, nature or description.

B. Exception for Changes Extending the Contract Time.

1. Where a change in the Work extends the Contract Time, Contractor may request and recover additional, actual direct costs, provided Contractor can demonstrate such additional costs are (i.) actually incurred performing the Work, (ii.) not compensated by the Markup allowed, and (iii) directly result from the extended Contract Time. Contractor shall make such request and provide such documentation following all required procedures, documentation and time requirements in the Contract Documents, and subject to all contract limitations of liability. Contractor may not seek or recover such costs using formulas (e.g., Eichleay).

C. Limits of Liability / Accord and Satisfaction.

1. The foregoing limits of compensation apply in all cases of claims for changed Work, whether calculating Change Order Requests, Change Orders or CDs, or calculating claims and/or damages of all types, and applies even in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. Contractor may recover no other costs arising out of or connected with the performance of extra Work, of any nature.
2. Under no circumstances may Contractor claim or recover special, incidental or

consequential damages against City, its representatives or agents, whether arising from breach of contract, negligence, strict liability or other tort or legal theory, unless specifically and expressly authorized in the Contract Documents.

3. No change in Work shall be considered a waiver of any other condition of Contract Documents. No claim shall be made for anticipated profit, for loss of profit, for damages, or for extra payment whatever, except as expressly provided for in Contract Documents.
4. **Accord and Satisfaction:** Every Change Order shall constitute a full accord and satisfaction, and release, of all Contractor (and if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay and any other type of claim. Contractor may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change Order but must do so expressly in a writing delivered concurrently with the executed Change Order, and must also submit a Claim for the reserved disputed items pursuant to Article 25 of Document 00 72 13 (General Conditions) no later than thirty (30) calendar days after Contractor's first written notice of its intent to reserve rights. Execution of any Change Order shall constitute Contractor's representation of its agreement with this provision.

1.11 MISCELLANEOUS REQUIREMENTS

A. City-Furnished Materials.

1. City reserves right to furnish materials as it deems advisable, and Contractor shall have no claims for costs and Markup on such materials.

B. Records And Certification.

1. All charges shall be recorded daily and summarized in Change Order Request form attached hereto. Contractor or authorized representative shall complete and sign form each day. Contractor shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; and a list by size type and identification number of equipment and hours operated.
2. City shall have the right to audit all records in possession of Contractor relating to activities covered by Contractor's claims for modification of Contract, including CD Work. This right shall be specifically enforceable, and any failure of Contractor to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to Article 25 of Document 00 72 13 (General Conditions).

- C. **Discounts, Rebates, and Refunds** - For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omission in the Work as provided herein.

- D. **Accounting Records** - With respect to portions of the Work performed by Change Orders and Construction Directives, the Contractor shall keep and maintain cost-accounting records satisfactory to the Owner, which shall be available to the Owner upon request. The Contractor shall allow and shall require its subcontractors to allow access to the Owner at all reasonable times to any books, correspondence, instructions, receipts, vouchers, memoranda, and records of any kind relating thereto, all of which shall be maintained by the

- appropriate parties for a period of at least three (3) years from and after the date the Owner makes payment on account of such change in work. The Contractor authorizes the Owner and shall require its subcontractors to authorize the Owner to check directly with any suppliers of labor and material with respect to, and to obtain, sworn statements and waivers of lien, if the Owner so elects.
- E. Notice Required - If the Contractor desires to make a Claim for an increase in the Contract Price, or any extension in the Contract Time for completion, it shall notify the Owner pursuant to the provisions herein. No Claim shall be considered unless made in accordance with this subparagraph and section 25 of section 00 72 13. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon.
- F. Applicability to Subcontractors - Any requirements under this Article shall be equally applicable to Change Orders or Construction Directives issued to Subcontractors by the Contractor to the extent as required by the Contract Documents.
- G. Alteration to Change Order Language - Contractor shall not alter Change Orders or reserve time in Change Orders. Contractor shall execute finalized Change Orders and proceed under the provisions herein with proper notice.
- H. Failure of Contractor to Execute Change Order - Contractor shall be in default of the Contract if Contractor fails to execute a Change Order when the Contractor agrees with the addition and/or deletion of the Work in that Change Order.
- I. Effect of Contractor's Acceptance of Change Order - By accepting a Change Order, Contractor agrees to the changes, if any, in the Contract Price specified for each item and to the specified extension of time allowed, if any, for completion of the entire Work on account of such Change Order, and agrees to furnish all labor and materials and perform all Work necessary to complete all additional Work specified therein for the price adjustment and within the time specified therein. Contractor shall make no additional claim for adjustment to the Contract Price or time, nor for additional costs or damages, on account of the work referenced in such Change Order. A Change Order duly issued by the Owner and accepted by the Contractor shall constitute a complete accord and satisfaction as to the work, Contract Price, and Contract Time changed thereby. Contractor shall defend and indemnify the Owner, its officers, employees, agents and consultants, if any Subcontractor asserts any claim against the Owner due to a duly issued and accepted Change Order.
- J. Effect on Sureties - All changes authorized by the Contract Documents may be made without notice to, or consent of, the sureties on the Performance and Payment bonds, and shall not reduce their liability on the bonds. The Owner reserves the right to require additional Performance or Payment bonds to secure a Change Order. In this event, the Change Order shall be increased by the actual cost of the bond premium for the additional bond amounts if any. Note that bonds are to be issued for 110% of the value of the original contract value per article 12.2 of section 00 72 13 "General Conditions".
- K. General Provisions Related to Changes - The Contractor shall not be entitled to any amount for indirect costs, damages, or expenses of any nature, including, but not limited to, so-called "impact" or "cumulative" costs, labor inefficiency, wage, material or other escalations beyond the prices upon which the proposal is based and to which the parties have agreed pursuant to the provisions of Section 01 2600, and which the Contractor, its subcontractors or sub-subcontractors or any other person may incur as a result of delay, interferences, suspensions, changes in sequence or the like, for whatever cause, whether reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable, arising from the performance of any and all changes in the Work performed pursuant to this Section 01 2600. It is understood and agreed that the Contractor's sole and exclusive remedy in such event

shall be recovery of his direct costs as compensable hereunder and an extension of the contract Time, but solely in accordance with the provisions of the Contract Documents.

No claim by the Contractor hereunder shall be allowed if asserted after final payment under this Contract. No claim relating to or flowing from a particular Change shall be allowed after execution of the Change Order relating to that change.

If any disputes should arise between the parties with respect to an increase or decrease in the Contract Sum or an expansion or contraction in the Contract Time as a result of a change in the Work, the Contractor shall not suspend performance of a change in the Work or the Work itself unless otherwise so ordered by the Owner in writing.

1.12 ALLOWANCE ADJUSTMENT (IF APPLICABLE)

- A. Base each COR for an allowance cost adjustment on the difference between the actual purchase amount and the allowance, multiplied by the final measurement of work-in-place, with reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections and similar margins.
 - 1. Include installation costs in the purchase amount only where indicated as part of the allowance.
- B. When requested, prepare explanations and documentation to substantiate margins claimed.
- C. The Owner reserves the right to establish the actual quantity of work-in-place by independent quantity survey, measure, or count.
- D. Submit claims for increased costs because of change in scope or nature of the allowance described in contract documents, whether for purchase amount or Contractor's handling, labor, installation, overhead and profit, within 20 days of receipt of change order or construction directive authorizing work to proceed. Claims submitted later than 20 days will be rejected.
- E. Change order cost amount shall not include Contractor's or subcontractor's indirect expense except when clearly demonstrated that the nature or scope of work required was changed from what could have been foreseen from the allowance description and other information in contract documents.
- F. No change to the Contractor's indirect expense is permitted for selection of higher or lower priced materials or systems, of the same scope and nature as originally indicated.

- END OF SECTION -

SECTION 01 2900 – PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Requirements for Schedule of Values.
- B. Initial Application for Payment requirements.
- C. Final Application for Payment requirements.
- D. Waivers of lien.

1.3 SCHEDULE OF VALUES

- A. Coordinate preparation of the Schedule of Values with the Contractor's Construction Schedule.
- B. Correlate line items in the Schedule of Values with other schedules and forms, including:
 - 1. Contractor's Construction Schedule.
 - 2. Application for Payment form.
 - 3. List of subcontractors.
 - 4. List of products.
 - 5. Schedule of submittals.
- C. Submit the Schedule of Values to the Owner at the earliest date, but no later than 10 days after issuance of the Notice to Proceed.
- D. Contractor shall certify that the preliminary schedule of values as submitted to the Owner is accurate and reflects the costs as developed in preparing Contractor's bid. The preliminary schedule of values shall be subject to the Owner's review and approval of the form and content thereof. In the event that the Owner objects to any portion of the preliminary schedule of values, the Owner shall notify the Contractor, in writing of the Owner's objection(s) to the preliminary schedule of values. Within five (5) days of the date of the Owner's written objection(s), Contractor shall submit a revised preliminary schedule of values to the Owner for review and approval. The foregoing procedure for the preparation, review and approval of the preliminary schedule of values shall continue until the Owner has approved the entirety of the preliminary schedule of values.
- E. Once the preliminary schedule of values is approved by the Owner, this shall become the Schedule of Values. The Schedule of Values shall not be thereafter modified or amended by the Contractor without the prior written consent and approval of the Owner, which may be granted or withheld in the sole discretion of the Owner.
- F. The Owner shall have the right at any time to revise the schedule of values if, in the Owner's sole opinion, the schedule of values does not accurately reflect the value of the Work performed.

- G. Format and Content: Use the Project Manual Table of Contents as a guide to establish the format.
- H. Identification: Include the following identification:
1. Project name and location.
 2. Name of the Architect.
 3. Project number.
 4. Contractor's name and address.
 5. Date of submittal.
- I. Arrange the Schedule in tabular form with columns to indicate the following for each item:
1. Generic name.
 2. Related Specification Section.
 3. Name of subcontractor.
 4. Name of manufacturer or fabricator.
 5. Name of supplier.
 6. Change Orders (numbers) that have affected value.
 7. Dollar value.
 8. Percentage of Contract Sum to the nearest one-hundredth percent, adjusted to total 100 percent.
- J. Break Contract Sum down in enough detail to facilitate evaluation of Applications for Payment. Break subcontract amounts down into several line items (to the satisfaction of the Owner). Round amounts off to the nearest dollar; the total shall equal the Contract Sum.
- K. Divide the Schedule of Values into at least the following categories:
- a. Overhead and profit;
 - b. Supervision;
 - c. General conditions;
 - d. Layout;
 - e. Mobilization;
 - f. Baseline Schedule;
 - g. Monthly Schedule Updates;
 - h. Submittals;
 - i. Bonds and insurance;
 - j. Close-out documentation;
 - k. Contract Allowances (if applicable)
 - l. Testing;
 - m. Punch list and acceptance;
 - n. All Specification sections (*by areas defined below*) – in alignment with how work is phased and scheduled)
- L. Also divide the Schedule of Values by each of the following areas:
- a. Site work;
 - b. By building/structure;
 - c. By each floor.
 - d. As required by the Owner to separate areas designated as District- and City-Owned (*note that this means breaking up Building 1 accordingly*)
- M. The preliminary Schedule of Values shall not provide for values any greater than the following percentages of the Contract value:
- a. Mobilization and layout combined to equal not more than 1%;
 - b. Demobilize of not less than 1%;
 - c. Submittals, samples and shop drawings combined to equal not more than 3%;

- d. Bonds and insurance combined to equal not more than 2%.
 - e. Closeout documentation of not less than 5%.
- N. Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision and general conditions costs and profit, as reflected in the Cost Breakdown, shall be paid by the Owner based on percentage of schedule complete, with the disbursement of Progress Payments and the Final Payment.
- O. Temporary facilities and items are not direct cost of Work-in-place may be shown as separate line items or distributed as general overhead expense.
- O. Update and resubmit the schedule when Change Orders change the Contract Sum.
- P. All submittals and schedules must be reviewed and accepted by the Owner before Contractor can receive payment for these items.
- Q. Payment for Material and Equipment Not Yet Incorporated Into the Work:
- 1. No payment shall be made for materials or equipment not yet incorporated into the Work, except as specified elsewhere in the Contract Documents or as may be agreed to by City in its sole discretion. Where Contractor requests payment on the basis of materials and equipment not incorporated in the Work, Contractor must satisfy the following conditions:
 - a. The materials and/or equipment shall be delivered and suitably stored at the Site or at another local location agreed to in writing.
 - b. Full title to the materials and/or equipment shall vest in City at the time of delivery to the Site, warehouse or other storage location. Obtain a negotiable warehouse receipt, endorsed over to City for materials and/or equipment stored in an off-site warehouse. No payment will be made until such endorsed receipts are delivered to City.
 - c. Stockpiled materials and/or equipment shall be available for City inspection, but City shall have no obligation to inspect them and its inspection or failure to inspect shall not relieve Contractor of any obligations under the Contract Documents. Materials and/or equipment shall be segregated and labeled or tagged to identify these specific Contract Documents.
 - d. After delivery of materials and/or equipment, if any inherent or acquired defects are discovered, defective materials and/or equipment shall be removed and replaced with suitable materials and/or equipment at Contractor's expense.
 - e. At Contractor's expense, insure the materials and/or equipment against theft, fire, flood, vandalism, and malicious mischief, as well as any other coverages required under the Contract Documents.
 - 2. Contractor's Application for Payment shall be accompanied by a bill of sale, invoice or other documentation warranting that City has received the materials and equipment free and clear of all liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect City interest therein, all of which must be satisfactory to City. This documentation shall include, but not be limited to, conditional releases of mechanics' liens and stop notices from all those providing materials and equipment as to which the Application for Payment relates, as well as unconditional releases of the same from the same as to the previous Application for Payment for which they have not already been provided. Amounts previously paid for materials and equipment

prior to incorporation into the Work shall be deducted from amounts otherwise due Contractor as they are incorporated.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.
- B. Payment Application Forms: Use approved AIA form or form approved by the Owner.
- C. Application Preparation: Complete every entry, including notarization and execution by person authorized to sign on behalf of the Owner. Incomplete applications will be returned without action.
- D. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
- E. Include amounts of Change Orders executed prior to the last day of the period covered by the application.
- F. Transmittal: Submit executed copies of each application to the Construction Manager within 24 hours; including waivers of lien and similar attachments.
- G. Transmit each copy with a transmittal listing attachments, and recording information related to the application.
- H. Retention:
 - 1. The Owner shall retain 5 percent of such estimated value of the work done as part of security for the fulfillment of the contract by the Contractor. However, at any time after 95 percent of the work has been completed, the Owner, at its discretion, may reduce the total amount being retained from payment pursuant to the above requirements to not less than 125 percent of the estimated value of said work yet to be completed if the Owner finds that satisfactory progress is being made, upon written request from the Contractor, and if the reduction has been approved in writing by the surety on the performance bond and the surety on the payment bond
 - 2. Substitution of Securities - The Owner will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300.
- I. Procedure for Applications for Progress Payments:
 - 1. Draft Application for Progress Payment - Not before the twenty-fifth (25th) day of each calendar month during the progress of the Work, Contractor shall submit to the Owner and the Construction Manager an itemized draft Application for Payment for operations completed in accordance with the Schedule of Values for the current month. This draft application shall include the following or each portion thereof as the Owner and/or the Construction Manager requires:
 - a. The amount paid to the date to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;
 - b. The amount being requested under the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;
 - c. The balance that will be due to each of these entities after the currently requested payment is made;

- d. An Itemized breakdown of work done for the purpose of requesting partial payment;
 - e. The additions to and subtractions from the Contract Price and Contract Time;
 - f. A total of the retentions held.
 - g. Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the Owner may require from time to time;
 - h. The percentage of completion of the Contractor's Work by line item;
 - i. Schedule of Values updated from the preceding Application for Payment;
2. Notwithstanding the fact that this document submitted by Contractor is a draft, the Contractor shall be subject to the False Claims Act set forth under Government Code Section 12650 et seq., for information provided with any draft Application for Progress.
 3. Owner's Approval of draft Application for Payment - Upon receipt of a draft Application for Payment, the Owner shall act in accordance with both of the following:
 - a. Each draft Application for Payment shall be reviewed by the Owner as soon as practicable after receipt for the purpose of determining that the draft Application for Payment is a proper draft Application for Payment.
 - b. Any draft Application for Payment determined not to be a proper draft Application for Payment suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. A draft Application for Payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the draft Application for Payment is not proper. The number of days available to the Owner to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the Owner exceeds this seven-day return requirement.
 - c. A draft Application for Payment shall be considered properly executed if funds are available for payment of the draft Application for Payment, and payment is not delayed due to an audit inquiry by the financial officer of the Owner.
 - d. The Owner's review of the Contractor's draft Application for Payment will be based on the Owner's and the Construction Manager's observations at the Site and the data comprising the draft Application for Payment that the Work has progressed to the point indicated and that, to the best of the Owner's and the Architect's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to:
 - 1) Observation of the Work for general conformance with the Contract Documents,
 - 2) Results of subsequent tests and inspections,
 - 3) Minor deviations from the Contract Documents correctable prior to completion, and
 - 4) Specific qualifications expressed by the Architect.
 - e. Owner's approval of the certified Application for Payment shall be based on Contractor complying with all requirements for a fully complete and valid certified Application for Payment Payment.
 4. The Owner shall pay monthly to the Contractor, while carrying on the work, the balance not retained, as aforesaid, after deducting therefrom all previous payments and all sums to be kept or retained under the provisions of the contract. No monthly estimate or payment shall be required to be made when, in the judgment of the Owner, the work is not proceeding in accordance with the provisions of the contract;
 5. No monthly estimate or payment shall be construed to be an acceptance of any defective work or improper materials.
 6. Partial payments made after the completion date will not constitute a waiver of liquidated damages.

J. Certified Application for Progress Payment:

1. Within five (5) days of the Owner's approval of a draft Application for Progress Payment, Contractor shall submit to the Owner and the Construction Manager an itemized Certified Application for Payment for operations completed in accordance with the Schedule of Values for the month that is part of the Certified Application for Payment. This Certified Application for Payment shall be notarized, if required, and shall include the following or each portion thereof as the Owner and/or the Construction Manager requires:
 - a. A final and complete statement of all the information required in the draft Application for Progress Payment;
 - b. An updated and acceptable construction schedule in conformance with the provisions herein;
 - c. A duly completed and executed conditional waiver and release upon progress payment compliant with Civil Code section 8132 from the Contractor and each subcontractor of any tier and supplier to be paid from the current progress payment;
 - d. A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134 from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payment
 - e. If the Owner has an LCP/CWA in force on this Project and if not previously submitted as required herein, all remaining certified payroll record ("CPR(s)") for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment. As indicated herein, if the Owner has an LCP/CWA in force on this Project, the Owner shall not make any payment to Contractor until:
 - 1) Contractor and/or its Subcontractor(s) provide CPRs acceptable to the Owner, and
 - 2) The Owner is given sufficient time to review and/or audit the CPRs to determine their acceptability. Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the Owner in a timely manner will directly delay the Owner's review and/or audit of the CPRs and Contractor's payment.
 - f. A certification by the Inspector of Record and/or Owner that the Record Drawings and annotated Specifications are current;
 - g. A certification by the Contractor of the following:

"The Contractor warrants title to all Work performed as of the date of this payment application. The Contractor further warrants that all Work performed as of the date of this payment application is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, workers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work, except those of which the Owner has been informed."
 - h. The Contractor shall be subject to the False Claims Act set forth under Government Code Section 12650 et seq., for information provided with any draft Application for Progress Payment.
- K. Payments to Contractor:
1. Within thirty (30) days after approval of the certified Application for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Construction Manager and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in said estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from

such Work, or from the Owner's right to enforce each and every provision of this Contract, and the Owner shall have the right subsequently to correct any error made in any estimate for payment.

2. The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the Owner concerning the Work, or any portion thereof, remains incomplete.
3. If the Owner fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted Application for Payment from the Contractor, the Owner shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

1.5 INITIAL APPLICATION FOR PAYMENT

- A. Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include:
 1. List of all Subcontractors, with names, license numbers, telephone numbers, and Scope of Work; and
 2. List of Contractor's staff assignments, resumes of Contractor's project manager, and if applicable, job site secretary, record documents recorder, and job site superintendent.
 3. Performance and payment bonds.
 4. Schedule of Values.
 5. Contractor's Construction Schedule (preliminary if not final).
 6. Submittal Schedule (preliminary if not final).
 7. Copies of building permits.
 8. Copies of licenses from governing authorities.
 9. Certificates of insurance and insurance policies.
 10. Installation of the Project sign (if required);
 11. Installation of field office;
 12. Installation of temporary facilities and fencing;
 13. Installation of construction camera(s);
 14. Approved Schedule of Values;
 15. Receipt by Architect of all submittals due as of the date of the payment application;
 16. Copies of authorizations and licenses from governing authorities;
 17. Initial progress report;
 18. Surveyor qualifications;
 19. Written acceptance of Owner's survey of rough grading, if applicable;
- B. Schedule of Values must be approved by the Owner before Contractor can rely on it as a basis for payment.

1.6 APPLICATION FOR PAYMENT AT SUBSTANTIAL COMPLETION

- A. Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions. Administrative actions and submittals that precede or coincide with this application include:
 1. Occupancy permits.
 2. Warranties and maintenance agreements.
 3. Test/adjust/balance records.
 4. Maintenance instructions.
 5. Meter readings.
 6. Change-over information related to Owner's occupancy.
 7. Final cleaning.
 8. Application for reduction of retainage, and consent of surety.

1.7 FINAL PAYMENT APPLICATION

- A. Upon approval of the Agreement and Release of Any and All Claims (per section 00 65 19) by the Contractor, or if Contractor approval is not received within ten (10) calendar days of receipt of the Agreement and Release of Any and All Claims, the Owner will recommend that the work is formally accepted under the contract as complete. The Owner will then prepare a final estimate of the total sum due the Contractor based on the Agreement and Release of Any and All Claims, including therein an itemization of said amount, segregated as to contract item quantities, extra work and any other basis for payment, and shall also show therein all deductions made or to be made for prior payments and amounts to be kept or retained under the provisions of the contract.
- B. Upon receipt and approval of a valid and final Application for Payment, the Owner shall thereupon jointly inspect the Work and either accept the Work as complete or notify the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (that, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the Owner will record the Notice of Completion with the County Recorder within 10 days after formal acceptance by the City and, if no mechanic's lien is recorded within thirty (30) days after the recording of the Notice of Completion with the County Recorder, the City will make a final payment of the entire sum due the Contractor based on the Owner's final estimate. Such final payment will be made within ten (10) days after the expiration of the aforementioned thirty (30) day period.
- C. Upon formal acceptance by the City, the Contractor will be relieved of the duty of maintaining and protecting the work as a whole, and he will not be required to perform any further work thereon; and the Contractor shall be relieved of this responsibility for injury to persons or property or damage to the work which occurs after the formal acceptance by the City, except for injuries or damages arising out of latent defects.
- D. Administrative actions and submittals which must precede or coincide with submittal of the final payment application include:
1. Completion of Project closeout requirements.
 2. Completion of items specified for completion after Substantial Completion.
 3. Transmittal of required Project construction records to Owner.
 4. Certified property survey.
 5. Proof that taxes, fees and similar obligations have been paid.
 6. Change of door locks to Owner's access.
 7. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 8. Updated final statement, accounting for final changes to the Contract Sum.
 9. AIA Document G706-1994, "Contractor's Affidavit of Payment of Debts and Claims."
 10. AIA Document G706A-1994, "Contractor's Affidavit of Release of Liens."
 11. AIA Document G707-1994, "Consent of Surety to Final Payment."
 12. Evidence that claims have been settled.
 13. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 14. Final, liquidated damages settlement statement.
- E. Prerequisites for Final Payment - The following conditions must be fulfilled prior to Final Payment:
1. A full and final waiver or release of all Stop Notices in connection with the Work shall be submitted by Contractor, including a release of Stop Notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all Stop Notice rights.

2. A duly completed and executed conditional waiver and release upon final payment compliant with Civil Code section 8136 from the Contractor and each subcontractor of any tier and supplier to be paid from the current progress payment;
3. A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8138 from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payment; and
4. A duly completed and executed Agreement and Release of Any and all Claims, Specification Section 00 65 19; and
5. The Contractor shall have made all corrections to the Work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of Owner required under the Contract Documents.
6. Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.
7. Contractor must have completed all requirements set forth under "Close Out Procedures," Including, without limitation, an approved set of complete "As-built" Record Drawings.
8. Architect shall have issued its written approval that final payment can be made.
9. The Contractor shall have delivered to the Owner all manuals and materials required by the Contract Documents.
10. The Contractor shall have completed final clean up as provided herein.

F. Retention

1. The retention, less any amounts disputed by the Owner or that the Owner has the right to withhold pursuant to provisions herein, shall be paid:
 - a. After approval of the Owner,
 - b. After the satisfaction of the conditions set forth herein, and
 - c. After forty-five (45) days after the recording of the Notice of Completion by Owner.
2. No interest shall be paid on any retention, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the Owner and the Contractor pursuant to Public Contract Code section 22300.

1.8 WAIVERS OF LIEN

- A. With each application, submit waivers of lien from every entity who may file a lien arising out of the Contract, and related to the Work covered by the payment.
- B. Submit partial waivers on each item for amount requested, prior to deduction for retainage, on each item.
- C. When an application shows completion of an item, submit final or full waivers.
- D. Waiver Delays: Submit each application with Contractor's waiver of lien for the period covered by the application.
- E. Submit final Application for Payment with final waivers from every entity involved with performance of Work covered by the application who could be entitled to a lien.
- F. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to Owner.

1.9 NO WAIVER

- A. No payment by Owner hereunder shall be interpreted so as to imply that Owner has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the Owner may enforce each and every provision of this Contract. The Owner may correct or require correction of any error subsequent to any payment.

1.10 WARRANTY OF TITLE

- A. If a lien or a claim based on a stop notice of any nature should at any time be filed against the Work or any Owner property, by any entity that has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by Owner and at Contractor's and Surety's own expense, take any and all action necessary to cause any such lien or a claim based on a stop notice to be released or discharged immediately therefrom.
- B. If the Contractor fails to furnish to the Owner within ten (10) calendar days after demand by the Owner, satisfactory evidence that a lien or a claim based on a stop notice has been so released, discharged, or secured, the Owner may discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by Owner from any sum payable to Contractor under the Contract.

1.11 DECISIONS TO WITHHOLD PAYMENT

A. Reasons to Withhold Payment

The Owner may withhold payment in whole, or in part, to the extent reasonably necessary to protect the Owner if, in the Owner's opinion, the representations to the Owner required herein cannot be made. The Owner may withhold payment, in whole, or in part, to such extent as may be necessary to protect the Owner from loss because of, but not limited to:

1. Defective Work not remedied within **FORTY-EIGHT (48)** hours of written notice to Contractor;
2. Stop Notices or other liens served upon the Owner as a result of the Contract;
3. Liquidated damages assessed against the Contractor;
4. The cost of completion of the Contract if there exists reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the completion date;
5. Damage to the Owner or other contractor(s);
6. Unsatisfactory prosecution of the Work by the Contractor;
7. Failure to store and properly secure materials;
8. Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and samples, Proposed product lists, executed Change Orders, and/or verified reports;
9. Failure of the Contractor to maintain Record Drawings;
10. Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
11. Unauthorized deviations from the Contract Documents;
12. Failure of the Contractor to prosecute the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, and/or completion dates;

13. If the Owner has an LCP/CWA in force on this Project, the failure to provide certified payroll records acceptable to the Owner for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment;
14. Failure to properly pay prevailing wages as defined in Labor Code Section 1720 et seq., failure to comply with any other Labor Code requirements, and/or failure to comply with the Owner's LCP/CWA, if one is in force on this Project;
15. Failure to properly maintain or clean up the Site;
16. Failure to indemnify, defend, or hold harmless the Owner;
17. Any payments due to the Owner, including but not limited to payments for failed tests, utilities changes, or permits;
18. Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents;
19. Contractor is otherwise in breach, default, or in substantial violation of any provision of this Contract.

1.12 REALLOCATION OF WITHHELD AMOUNTS

- A. Owner may, in its discretion, apply any withheld amount to pay outstanding claims or obligations as defined herein. In so doing, Owner shall make such payments on behalf of Contractor. If any payment is so made by Owner, then that amount shall be considered a payment made under Contract by Owner to Contractor and Owner shall not be liable to Contractor for any payment made in good faith. These payments may be made without prior judicial determination of claim or obligation. Owner will render Contractor an accounting of funds disbursed on behalf of Contractor.
- B. If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision thereof, Owner may, after **FORTY-EIGHT (48)** hours written notice to the Contractor and, without prejudice to any other remedy, make good such deficiencies. The Owner shall adjust the total Contract Price by reducing the amount thereof by the cost of making good such deficiencies if Owner deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least one hundred twenty-five percent (125%) of the estimated reasonable value of the nonconforming Work) shall be made therefore.

1.13 PAYMENT AFTER CURE

When Contractor removes the grounds for declining approval, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

1.14 SUBCONTRACTOR PAYMENTS

- A. **Payments to Subcontractors**
No later than seven (7) days after receipt, or pursuant to Business and Professions Code Section 7108.5 and Public Contract Code Section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.
- B. **No Obligation of Owner for Subcontractor Payment**
The Owner shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

C. Joint Checks

Owner shall have the right in its sole discretion, if necessary for the protection of the Owner, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the Owner and a Subcontractor of any tier, any obligation from the Owner to such Subcontractor, or rights in such Subcontractor against the Owner.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 2900

SECTION 01 3100 – PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Coordination.
- B. Project Management Software - PROCORE
- C. Administrative and supervisory personnel.
- D. General installation provisions.
- E. Cleaning and protection.

1.3 COORDINATION

- A. Coordinate activities included in various Sections to assure efficient and orderly installation of each component. Coordinate operations included under different Sections that are dependent on each other for proper installation and operation.
- B. Where installation of one component depends on installation of other components before or after its own installation, schedule activities in the sequence required to obtain the best results.
- C. Where space is limited, coordinate installation of different components to assure maximum accessibility for maintenance, service and repair.
- D. Make provisions to accommodate items scheduled for later installation.
- E. Prepare memoranda for distribution to each party involved outlining required coordination procedures. Include required notices, reports, and attendance at meetings.
- F. Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.
- G. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's Construction Schedule.
 - 2. Preparation of the Schedule of Values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Pre-installation conferences.
 - 7. Project closeout activities.

8. Startup and adjustment of systems.
9. Project closeout activities.

1.4 COORDINATION DRAWINGS

- A. Prepare Coordination Drawings where close coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space necessitates maximum utilization of space for efficient installation of different components.
 1. Content: Project-specific information, drawn accurately to scale. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:
 - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - b. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
 2. Sheet Size: At least 8-1/2 by 11 inches (215 by 279 mm) but no larger than 30 by 42 inches (750 by 1067 mm).
 3. Number of Copies: Submit two (2) opaque copies of each submittal. Architect will return one (1) copy.
 4. Refer to individual Sections for Coordination Drawing requirements for Work in those Sections.
- B. Show relationship of components shown on separate Shop Drawings.
- C. Indicate required installation sequences.
- D. Refer to Division 23 Section "Common Work Results for Mechanical," and Division 26 Section "Common Work Results for Electrical" for requirements for mechanical and electrical installations.

1.5 PROJECT MANAGEMENT SOFTWARE

- A. Software: PROCORE will be the software package utilized to manage the following processes:
 1. Requests for Information
 2. Submittals and substitutions
 3. Change Management Documentation
 4. Daily Report Management
 5. Meeting Notes
 6. Photographic Documentation
 7. Document Management
- B. The Contractor will be required to utilize PROCORE for all of the above processes. The Contractor may, at their option, utilize their own software for their own management purposes, but data must still be entered into the PROCORE web based software. Data entered into other management systems will not be recognized by the project team.

1.6 INSPECTION OF CONDITIONS

- A. The Installer of each component shall inspect the substrate and conditions under which Work is performed. Do not proceed until unsatisfactory conditions have been corrected.

1.7 MANUFACTURER'S INSTRUCTIONS

- A. Comply with manufacturer's installation instructions and recommendations, to the extent that they are more stringent than requirements in Contract Documents.
- B. Inspect material immediately upon delivery and again prior to installation. Reject damaged and defective items.
- C. Provide attachment and connection devices and methods necessary for securing each construction element. Secure each construction element true to line and level. Allow for expansion and building movement.

1.8 VISUAL EFFECTS

- A. Provide uniform joint widths in exposed Work. Arrange joints to obtain the best effect. Refer questionable choices to the Architect for decision.
- B. Recheck measurements and dimensions, before starting installation.
- C. Install each component during weather conditions and project status that will ensure the best results. Isolate each part from incompatible material as necessary to prevent deterioration.
- D. Coordinate temporary enclosures with inspections and tests, to minimize uncovering completed construction for that purpose.

1.9 MOUNTING HEIGHTS

- A. Where mounting heights are not indicated, install components at standard heights for the application indicated. Refer questionable decisions to the Architect.

1.10 CLEANING AND PROTECTION

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- B. Clean and maintain completed construction as often as necessary through the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- C. Limiting Exposures: Supervise operations to ensure that no part of construction, completed or in progress, is subject to harmful or deleterious exposure. Such exposures include:
 - 1. Excessive weathering.
 - 2. Excessively high or low temperatures or humidity.
 - 3. Air contamination or pollution.
 - 4. Water or ice.
 - 5. Chemicals or solvents.
 - 6. Heavy traffic, soiling, staining and corrosion.
 - 7. Rodent and insect infestation.
 - 8. Unusual wear or other misuse.
 - 9. Contact between incompatible materials.
 - 10. Theft or vandalism.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 3100

SECTION 01 3119 – PROJECT MEETINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Pre-construction conference.
- B. Progress meetings.
- C. Project meetings.
- D. Preinstallation meetings.
- E. Coordination meetings.

1.3 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences (with the exception of Preconstruction Conference and Progress “OAC” Meetings – see below) at Project site, unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner, Construction Manager and Architect of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, Construction Manager and Architect, within three (3) working days of the meeting.

1.4 PRE-CONSTRUCTION CONFERENCE

- A. Preconstruction Conference: Schedule a preconstruction conference with Owner before starting construction, at a time convenient to Owner, but no later than five (5) working days after execution of the Agreement. Hold the conference at Project site or another convenient and accessible location. Owner to conduct the meeting to review responsibilities and personnel assignments.
 - 1. Attendees: Authorized representatives of Owner, Construction Manager, Architect, and their consultants; inspectors; Authorities Having Jurisdiction, Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Project Team:
 - 1) Designation of key personnel and their duties (Contractor, Owner, Construction Manager, Architect, Project Inspector)
 - 2) Other team members & roles.

- 3) Project communication procedures
 - b. Schedule:
 - 1) Contractor's Initial Schedule
 - 2) Any required Phasing
 - 3) Procedures for Project Schedule development
 - 4) Procedures for use of Weather Day Allowance
 - 5) Critical work sequencing and long-lead items
 - 6) Utility coordination and related scheduling
 - c. Site Administration:
 - 1) Use of the premises and buildings
 - 2) Work restrictions
 - 3) City's occupancy requirements
 - 4) Responsibility for temporary facilities and controls
 - 5) Construction waste management and recycling
 - 6) Access & parking
 - 7) Office, work, and storage areas
 - 8) Equipment deliveries and priorities
 - 9) Safety & First Aid, IIPP
 - 10) Fire controls
 - 11) Security & FAA
 - 12) Progress cleaning
 - 13) Working hours
 - d. Project Administration:
 - 1) Web-Based Project Management Software
 - 2) Weekly progress meetings
 - 3) Procedures for Daily Construction Reports
 - 4) Procedures for RFIs
 - 5) Procedures for Bulletins
 - 6) Procedures for processing field direction and Change Orders
 - 7) Status of Schedule of Value
 - 8) Procedures for processing Applications for Payment
 - 9) Submittal procedures
 - 10) LEED requirements and procedures
 - e. Permits & Fees:
 - 1) Status of all permits
 - 2) Jurisdictional agency requirements and coordination
 - 3) Scheduling of permit inspections
 - 4) Scheduling of special inspections
 - f. Close-Out:
 - 1) Project Record Documents
 - 2) Training
3. Notes: Construction Manager or Architect/Engineer will record and distribute meeting notes to attendees. Contractor to distribute to subcontractors as required.

1.5 PROGRESS MEETINGS

- A. Progress Meetings (also known as Owner/Architect/Contractor or "OAC" Meetings): Construction Manager will conduct progress meetings at **weekly** intervals. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Owner, Construction Manager, Project Inspector and Architect, each subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. General Contractor's designated Project Manager and Superintendent must attend all Progress Meetings in addition to all other project related meetings.

2. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work. Owner's Consultants may attend meetings at the Owner's discretion and direction.
3. Agenda: Review and correct or approve notes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Project Schedule:
 - 1) Lookahead Schedule review
 - 2) Project Schedule status review (Initial, Baseline or Progress)
 - 3) Critical Path status review
 - 4) Review of Notices since last meeting
 - 5) Off-site fabrication status
 - 6) Utility Coordination & scheduling
 - 7) Upcoming Holidays and Time Off (staffing coverage)
 - 8) General - Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Project Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Site Administration
 - 1) Safety, including hazards and risks
 - 2) Deliveries.
 - 3) Access.
 - 4) Site utilization.
 - 5) Temporary facilities and controls.
 - 6) Work hours.
 - 7) Progress cleaning.
 - c. RFIs
 - 1) Review of Open RFI log
 - 2) Pending RFIs
 - 3) Priority RFIs
 - d. Bulletins
 - 1) Review of Open Bulletin log
 - 2) Pending Bulletins
 - 3) Status – Pricing, Progress
 - e. Submittals.
 - 1) Review of Open Submittal log (In Review, Revise & Resubmit, etc)
 - 2) Pending Submittals
 - 3) Priority Submittals
 - 4) Deferred Submittals
 - 5) LEED Submittals
 - f. Permits
 - 1) DSA & Permit Updates
 - 2) DSA & Permit Inspections (Recent, Pending)
 - 3) Special Inspections (Recent, Pending)
 - g. Quality
 - 1) Pre-install Meetings
 - 2) Mock-ups
 - 3) Status of correction of deficient items.
 - 4) Field observations.
 - 5) Design team visits
 - h. Business Items
 - 1) Pay Applications status
 - i. Change Orders

- 1) Review of Open COR log
- 2) Pending CORs
- 3) Status of Change Orders
- 4) Pending claims and disputes
- j. Close-out
 - 1) Status of Project Record Documents
4. Notes: Construction Manager will conduct the meeting and will record and distribute meeting notes to City, Architect/Engineer and Contractor. Attendees shall have five (5) working days to submit comments or additions to the notes. Notes shall constitute final memorialization of results of meeting.
5. Reporting: Notes of the meeting shall be distributed to each party present and to parties who should have been present.

1.6 PREINSTALLATION CONFERENCES

- A. Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
- B. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Owner, Construction Manager and Architect of scheduled meeting dates.
- C. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 1. The Contract Documents.
 2. Options.
 3. Related RFIs.
 4. Related Change Orders.
 5. Purchases.
 6. Deliveries.
 7. Submittals.
 8. Review of mockups.
 9. Possible conflicts.
 10. Compatibility problems.
 11. Time schedules.
 12. Weather limitations.
 13. Manufacturer's written recommendations.
 14. Warranty requirements.
 15. Compatibility of materials.
 16. Acceptability of substrates.
 17. Temporary facilities and controls.
 18. Space and access limitations.
 19. Regulations of authorities having jurisdiction.
 20. Testing and inspecting requirements.
 21. Installation procedures.
 22. Coordination with other work.
 23. Required performance results.
 24. Protection of adjacent work.
 25. Protection of construction and personnel.
- D. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
- E. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.

1. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

1.7 REPORTING

- A. General: No later than 3 days after each meeting, distribute copies of minutes of the meeting to each party present and to parties who should have been present. Include a summary, in narrative form, of progress since the previous meeting.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 3119

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SECTION 01 3131 – REQUEST FOR INFORMATION**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specifications, apply to this Section.

1.2 SECTION INCLUDES

- A. Procedures to be followed by Contractor upon discovery of any apparent conflicts, omissions, or errors in Contract Documents or upon having any question concerning interpretation.

1.3 PROCEDURES

A. Notification by Contractor:

1. Submit all requests for clarification and additional information in writing via PROCORE using ALL fields available including, but not limited to, those listed below.
2. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
3. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
4. Number RFIs sequentially. Follow RFI number with sequential alphabetical suffix as necessary for each resubmission. For example, the first RFI would be "001". The second RFI would be "002". The first resubmittal of RFI "002" would be "002a".
5. Limit each RFI to one issue on one subject and to no more than five questions, with this subject clearly and accurately noted in the RFI title.
6. Submit RFIs if one of the following conditions occur:
 - a. Contractor discovers an unforeseen condition or circumstance that is not described in the Contract Documents.
 - b. Contractor discovers an apparent conflict or discrepancy between portions of the Contract Documents that appears to be inconsistent or is not reasonably inferred from the intent of the Contract Documents.
 - c. Contractor discovers what appears to be an omission from the Contract Documents that cannot be reasonably inferred from the intent of the Contract Documents.
 - d. RFIs will not be recognized or accepted if, in the opinion of Architect, one of the following conditions exist and may result in the Architect requesting monetary compensation from the Contractor for time spent to review any of the following:
 - 1) Contractor submits the RFI as a request for substitution.
 - 2) Contractor submits the RFI as a submittal.
 - 3) Contractor submits the RFI under the pretense of a Contract Documents discrepancy or omission without thorough review of the Documents.
 - 4) Contractor submits the RFI in a manner that suggests that specific portions of the Contract Documents are assumed to be excluded or by taking an isolated portion of the Contract Documents in part rather than whole.
 - 5) Contractor submits an RFI in an untimely manner without proper coordination and scheduling of work or related trades.

- 6) Contractor submits an RFI that is incomplete (without all required PROCORE fields filled out) or contains numerous errors.
 7. Ask for any clarification or request for information immediately upon discovery. Submit RFIs in a reasonable time frame so as not to affect the project schedule while allowing the full response time described below.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following (using ALL available fields in PROCORE):
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect, City's Project Manager, and Construction Manager.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log (CSI Log Form 13.2B) weekly. Include the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were dropped and not submitted.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date response was received.
 8. Identification of related Change Order Request, Construction Directive, and Bulletin, as appropriate.
- 1.4 RESPONSE TIME
- A. Architect, whose decision will be final and conclusive, shall resolve such questions and issue instructions to Contractor within a reasonable time frame. In most cases, RFIs will receive a response within 7 calendar days. In some cases this time may need to be lengthened for complex issues, or shortened for emergency situations, as mutually agreed by all parties. RFIs received after 1:00 p.m. will be considered as received the following working day.
- B. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
- C. Should Contractor proceed with the work affected before receipt of a response, within the response time described above, any portion of the work which is not done in accordance with Architect's interpretations, clarifications, instructions, or decisions is subject to removal or replacement and Contractor shall be responsible for all resultant losses.

- D. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, they are to notify the Owner in writing within seven (7) calendar days (or sooner if related work falls along, or near, the critical path of the schedule) of receipt of the RFI response. Refer to section 01 2600 "Contract Modification Procedures".
- E. Contractor has no claim for additional compensation or extension of the schedule because of any such additional instructions unless Contractor gives written notice thereof within the time frame as specified above.
- F. Failure to Agree: In the event of failure to agree as to the scope of Contract requirements, Contractor shall follow procedures set forth in the disputes clause.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 3131

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SECTION 01 3200 – CONSTRUCTION PROGRESS DOCUMENTATION**1. – GENERAL****1.01 RELATED DOCUMENTS AND PROVISIONS**

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions;
- B. Special Conditions;
- C. Summary of Work; and
- D. Submittals.

1.02 SECTION INCLUDES

- A. Scheduling of Work under this Contract shall be performed by Contractor in accordance with requirements of this Section.
 - 1. Development of Project Schedule (including Initial, Baseline, and Progress Schedule). Contractor shall employ computerized Critical Path Method (“CPM”) scheduling (“CPM Schedule”).
 - 2. Cost loading (or equivalent) of the schedule shall be:
 - (a) Related to the Project Schedule of Values as approved by the Owner.
 - (b) Represent the intended work plan cash-flow.
 - (c) Another measure to verify the basis for monthly payment requests with validated work-in-place activity progress (although final value will be based on the Schedule of Values).
 - (d) The basis of Earned Value assessment.
 - 3. Submit schedules and reports as specified in the General Conditions.
 - 4. Scheduling best practices identifying technical issues and project float.
- B. Time Impacts including directed scope additions, unexpected critical impacts, inclement weather, and defined liability assignments.
- C. Earned Value Management including schedule health assessment, forecast completion estimation, and schedule efficiency performance indicators.
- D. Monthly Schedule Reporting.

1.03 QUALIFICATIONS

- A. Contractor shall employ experienced scheduling personnel qualified to use the latest version of Primavera P6 Professional or approved equivalent software. Experience level required is set forth below. Contractor may employ such personnel directly or may employ a consultant for this purpose.
1. Project Scheduler qualifications shall be submitted in writing at the Notice of Intent to Award.
 2. The written statement shall identify the individual who will perform CPM scheduling and experience shall be verified by description of construction projects on which individual has successfully applied computerized CPM.
 3. Required level of experience shall include at least two (2) projects of similar nature and scope, with a minimum of five (5) years of verifiable experience. The written statement shall provide contact persons for referenced projects with current telephone and address information.
 4. Project Scheduler with capability of producing schedule reports and diagrams within 24 hours of Owner's request.
- B. City reserves the right to approve or reject Contractor's scheduler or consultant at any time. City reserves the right to refuse replacing of Contractor's scheduler or consultant, if City believes replacement will negatively affect the scheduling of Work under this Contract.

1.04 GENERAL

- A. Project Schedule shall be based on and incorporate milestone and completion dates specified in Contract Documents.
- B. Overall time of completion and time of completion for each milestone shown on Project Schedule shall adhere to times in the Contract, unless an earlier (advanced) time of completion is requested by Contractor and agreed to by City. Any such agreement shall be formalized by a Change Order.
1. City is not required to accept an early completion schedule, i.e., one that shows an earlier completion date than the Contract Time.
 2. Contractor shall not be entitled to extra compensation in event agreement is reached on an earlier completion schedule and Contractor completes its Work, for whatever reason, beyond completion date shown in its early completion schedule but within the Contract Time.
 3. A schedule showing the work completed in less than the Contract Time, and that has been accepted by City, shall be considered to have Project Float. The Project Float is the time between the scheduled completion of the work and the Completion Date. Project Float is a resource available to both City and the Contractor.
- C. Ownership Project Float: Neither the City nor Contractor owns Project Float. The Project owns the Project Float. As such, liability for delay of the Completion Date rests with the party whose actions, last in time, actually cause delay to the Completion Date.

1. Float defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule. Float is not for the exclusive use of or benefit of either the Owner or the Contractor, but its use shall be determined solely by the Owner.
 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 3. For example, if Party A uses some, but not all of the Project Float and Party B later uses remainder of the Project Float as well as additional time beyond the Project Float, Party B shall be liable for the time that represents a delay to the Completion Date.
 4. Party A would not be responsible for the time since it did not consume the entire Project Float and additional Project Float remained; therefore, the Completion Date was unaffected by Party A.
- D. The Project Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. The Contractor is responsible for developing the based on the critical path method (CPM), logical activity duration derivation, using standard scheduling best practices, and logical sequence of execution.
- E. Failure of the Project Schedule to include any element of the Work, or if there are any inaccuracies, will not relieve Contractor from the responsibility of accomplishing the Work in accordance with the Contract. City's acceptance of schedule shall be for its use in monitoring and evaluating job progress, payment requests, and time extension requests and shall not, in any manner, impose a duty of care upon City, or act to relieve Contractor of its responsibility for means and methods of construction.
- F. Recommended scheduling software is the latest version of Primavera P6 or an approved equivalent. Contractor shall transmit contract file to City on USB flash drive or project management system at times requested by City.
- G. Transmit each item under the form approved by City.
1. Identify Project with City Contract number and name of Contractor as well as the data date.
 2. Provide space for Contractor's approval stamp and City's review stamps.
 3. Submittals received from sources other than Contractor will be returned to the Contractor without City's review.

1.05 INITIAL SCHEDULE (90-day)

- A. At the Notice to Proceed, Contractor shall immediately commence development of Initial and Baseline Schedules to ensure compliance with Project Schedule submittal requirements.
- B. Within fourteen (14) calendar days of the Notice to Proceed and before request for first progress payment, the Contractor shall prepare and submit to the Owner an Initial Schedule conforming to, and containing, the milestones required by the Contract Documents.

- C. The Initial Schedule is the basis for the subsequent Baseline Schedule.
- D. Indicate detailed plan for the Work to be completed in first ninety (90) days of the Contract; details of planned mobilization of equipment; sequence of early operations; procurement of materials and equipment. Show Work beyond ninety (90) calendar days in summary form.
- E. Initial Schedule shall be time scaled.
- F. City and Contractor shall meet to review and discuss the Initial Schedule within seven (7) calendar days after it has been submitted to City.
 - 1. City's review and comment on the schedule shall be limited to Contract conformance (with sequencing, coordination, and milestone requirements).
 - 2. Contractor shall make corrections to schedule necessary to comply with Contract requirements and shall adjust schedule to incorporate any missing information requested by City. Contractor shall resubmit Initial Schedule if requested by City.
 - 3. Prescheduling Conference: Conduct conference at Project site to review methods and procedures related to the Preliminary Construction Schedule and Contractor's Construction Schedule, including, but not limited to, the following:
 - (a) Review software limitations and content and format for reports.
 - (b) Verify availability of qualified personnel needed to develop and update schedule.
 - (c) Discuss constraints, including phasing, work stages, area separations, interim milestones, and partial Owner occupancy.
 - (d) Review delivery dates for Owner-furnished products.
 - (e) Review schedule for work of Owner's separate contracts.
 - (f) Review time required for review of submittals and resubmittals.
 - (g) Review requirements for tests and inspections by independent testing and inspecting agencies.
 - (h) Review time required for completion and startup procedures.
 - (i) Review time required for Project closeout and Owner startup procedures, including commissioning activities.
 - (j) Review and finalize list of construction activities to be included in schedule.
 - (k) Review submittal requirements and procedures.
 - (l) Review procedures for updating schedule.

1.06 BASELINE SCHEDULE

- A. Contractor shall, within thirty (30) calendar days from the Notice to Proceed date, submit a detailed proposed Baseline Schedule presenting an orderly and realistic plan for completion of the Work in conformance with requirements as specified herein.
- B. The Baseline Schedule shall include or comply with following requirements:
1. Time scaled and cost-loaded (or equivalent) schedule. The total cost observed in the schedule should be equal to the Contract amount.
 2. No activity on schedule shall have duration longer than fifteen (15) work days, with exception of submittal, approval, fabrication and procurement activities, unless otherwise approved by City.
 - (a) Activity durations shall be total number of actual work days required to perform that activity.
 - (b) It is recommended activity durations are derived using one of the following best practices methods:
 - 1) Analogous
 - 2) Parametric
 - 3) PERT Method
 3. Constraints: Should be limited to 'start on or after' or 'finish on or before'.
 4. Phasing: Arrange list of activities on schedule by phase.
 5. Work under More Than One Contract: Include a separate activity for each contract.
 6. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 7. Products Ordered in Advance: Include a separate activity for each product. Delivery dates indicated stipulate the earliest possible delivery date.
 8. Owner-Furnished Products: Include a separate activity for each product. Delivery dates indicated stipulate the earliest possible delivery date.
 9. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - (a) Submittals.
 - (b) Purchases.
 - (c) Mockups.
 - (d) Fabrication.
 - (e) Sample testing.

- (f) Deliveries.
- (g) Installation.
- (h) Tests and inspections.
- (i) Adjusting.
- (j) Curing.
- (k) Building flush-out.
- (l) Startup and placement into final use and operation.
- (m) Commissioning.

10. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:

- (a) Structural completion.
- (b) Permanent space enclosure.
- (c) Completion of mechanical installation.
- (d) Completion of electrical installation.
- (e) Substantial Completion.

11. Timing of transportation and delivery of WTC beam to be installed in Building 2 Lobby, including moving procedures temporary storage on site, permanent installation and continued protection until Final Completion.

12. City furnished materials and equipment, if any, identified as separate activities.

13. Activities for maintaining Project Record Documents.

14. Dependencies (or relationships) between activities.

- (a) Relationships shall consist of finish-start, finish-finish, and start-start only.
- (b) Open-end activities should be seen on the Notice to Proceed (NTP) and Final Completion milestones only.
- (c) Finish-start relationships with positive lag are not allowed.
- (d) Negative lag is not allowed.

15. Processing/approval of submittals and shop drawings for all material and equipment required per the Contract. Activities that are dependent on submittal acceptance or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates.

- (a) Include time for submittals, re-submittals and reviews by City. Coordinate with accepted schedule for submission of Shop Drawings, samples, and other submittals.
 - (b) Contractor shall be responsible for all impacts resulting from re-submittal of Shop Drawings and submittals.
16. Procurement of major equipment, through receipt and inspection at jobsite, identified as separate activity.
- (a) Include time for fabrication and delivery of manufactured products for the Work.
 - (b) Show dependencies between procurement and construction.
17. Activity description; what Work is to be accomplished avoiding duplicates.
18. The cost-loaded (or equivalent) schedule will provide the cash flow used as the basis for subsequent earned value metric calculation. The total cost of performing each activity shall be total of labor, material, and equipment, as well as overhead and profit of Contractor. Sum of cost for all activities shall equal total Contract value and be correlated with the Schedule of Values.
19. The alternative equivalent to a cost-loaded schedule will be the work-plan cash-flow that is correlated with the approved Schedule of Values. The intent is to identify the monthly cash-flow for the duration of the project.
20. Responsibility code for each activity corresponding to Contractor or Subcontractor responsible for performing the Work.
21. Identify the activities which constitute the controlling operations or critical path. No more than twenty-five (25%) of the activities shall be critical or near critical. Near critical is defined as float in the range of one (1) to (10) days.
22. Twenty (20) working days for developing punch list(s), completion of punch-list items, and final clean-up for the Work or any designated portion thereof. No other activities shall be scheduled during this period.
23. Interface with, and coordinate, the work of other contractors, City, and agencies such as, but not limited to, utility companies.
24. Show detailed Subcontractor Work activities. In addition, furnish copies of Subcontractor schedules upon which the Project Schedule was built.
- (a) Also furnish for each Subcontractor, as determined by City, submitted on Subcontractor letterhead, a statement certifying that Subcontractor concurs with Contractor's Baseline Schedule and that Subcontractor's related schedules have been incorporated, including activity duration, cost and resource loading.
 - (b) Subcontractor schedules shall be independently derived and not a copy of Contractor's schedule.
 - (c) In addition to Contractor's schedule, obtain from electrical, mechanical, and plumbing Subcontractors, and other Subcontractors as re-

quired by City, productivity calculations common to their trades, such as units per person day, feet of pipe per day per person, feet of wiring per day per person, and similar information.

- (d) Furnish schedule for Contractor/Subcontractor schedule meetings which shall be held prior to submission of Baseline Schedule to City. City shall be permitted to attend scheduling meetings as an observer.

- 25. Activity durations shall be in Work days.
- 26. Submit with the schedule a list of anticipated non-Work days, such as weekends and holidays. The Project Schedule shall exclude in its Work day calendar all non-Work days on which Contractor anticipates critical Work will not be performed.
- 27. The anticipated days lost due to weather shall be included as a single Adverse Weather Allowance activity with a duration defined in table below prorated for the length of the project and based on NOAA historical data. The duration shall be in working days and be the predecessor to the Substantial Completion milestone on the critical path. Adverse weather day impacts will be managed as prescribed in section 1.12F.

Month	Adverse Weather Allowance (days)
January	6
February	7
March	7
April	4
May	1
June	0
July	0
August	0
September	0
October	2
November	4
December	7

- C. Baseline Schedule Review Meeting: Contractor shall, within fourteen (14) calendar days from the Notice to Proceed date, meet with City to review the Baseline Schedule submittal.
 - 1. Contractor shall have its Project Manager, Project Superintendent, Project Scheduler, and key Subcontractor representatives, as required by City, in attendance. The meeting will take place over a continuous one (1) day period.
 - 2. City's review will be limited to submittal's conformance to Contract requirements including, but not limited to, coordination requirements. However, review may also include:
 - (a) Clarifications of Contract Requirements.

- (b) Directions to include activities and information missing from submittal.
 - (c) Requests to Contractor to clarify its schedule.
3. Within seven (7) calendar days of the Schedule Review Meeting, Contractor shall respond in writing to all questions and comments expressed by City at the Meeting.

1.07 BASELINE SCHEDULE REVISIONS

- A. Adjustments to Baseline Schedule: Contractor shall have adjusted the Baseline Schedule submittal to address all review comments from Baseline Schedule review meeting and resubmit network diagrams and reports for City's review.
- 1. City, within fourteen (14) calendar days from date that Contractor submitted the revised schedule, will either:
 - (a) Accept schedule as submitted, or
 - (b) Advise Contractor in writing to review any part or parts of schedule which either do not meet Contract requirements or are unsatisfactory for City to monitor Project's progress, resources, and status or evaluate monthly payment request by Contractor.
 - 2. When schedule is accepted, it shall be considered the "Baseline Schedule" which will then be immediately updated to reflect the current status of the work.
 - 3. City reserves right to require Contractor to adjust, add to, or clarify any portion of schedule which may later be discovered to be insufficient for monitoring of Work or approval of partial payment requests. No additional compensation will be provided for such adjustments, additions, or clarifications.
- B. Acceptance of Contractor's schedule by City will be based solely upon schedule's compliance with Contract requirements.
- 1. By way of Contractor assigning activity durations and proposing sequence of Work, Contractor agrees to utilize sufficient and necessary management and other resources to perform work in accordance with the schedule.
 - 2. Upon submittal of schedule update, updated schedule shall be considered "current" Project Schedule.
 - 3. Submission of Contractor's schedule to City shall not relieve Contractor of total responsibility for scheduling, sequencing, and pursuing Work to comply with requirements of Contract Documents, including adverse effects such as delays resulting from ill-timed Work.
- C. Submittal of Baseline Schedule, and subsequent schedule updates, shall be understood to be Contractor's representation that the Schedule meets requirements of Contract Documents and that Work shall be executed in sequence indicated on the schedule.
- D. Contractor shall distribute Baseline Schedule to Subcontractors for review and written acceptance, which shall be noted on Subcontractors' letterheads to Contractor and transmitted to City for the record.

1.08 PROGRESS SCHEDULE (MONTHLY SCHEDULE UPDATE)

- A. Following acceptance of Contractor's Baseline Schedule, Contractor shall monitor progress of Work and adjust schedule on at least a monthly basis to reflect actual progress and any anticipated changes to planned activities.
 - 1. Each schedule update submitted shall be complete, including all information requested for the Baseline Schedule submittal.
 - 2. Each update shall continue to show all Work activities including those already completed. These completed activities shall accurately reflect "as built" information by indicating when activities were actually started and completed. The "as-built" activities shall be reviewed and accepted prior to the update schedule review.
- B. A meeting will be held on approximately the twenty-fifth (25th) of each month to review the schedule update submittal and progress payment application.
 - 1. At this meeting, at a minimum, the following items will be reviewed: Percent (%) complete of each activity; Time Impact Evaluations for Change Orders and Time Extension Request; actual and anticipated activity sequence changes; actual and anticipated duration changes; and actual and anticipated Contractor delays.
 - 2. These meetings are considered a critical component of overall monthly schedule update submittal and Contractor shall have appropriate personnel attend. At a minimum, these meetings shall be attended by Contractor's General Superintendent and Scheduler.
 - 3. Contractor shall plan on the meeting taking no less than four (4) hours.
- C. Within five (5) working days after monthly schedule update meeting, Contractor shall submit the Progress Schedule.
- D. Within five (5) work days of receipt of above noted revised submittals, City will either accept or reject Progress Schedule.
- E. Neither updating, changing or revising of any report, curve, schedule, or narrative submitted to City by Contractor under this Contract, nor City's review or acceptance of any such report, curve, schedule or narrative shall have the effect of amending or modifying in any way the Completion Date or milestone dates or of modifying or limiting in any way Contractor's obligations

1.09 PROGRESS SCHEDULE REVIEW AND REVISIONS

- A. City, within seven (7) days from date that Contractor submitted the schedule update, will either:
 - 1. Accept schedule as submitted, or
 - 2. Advise Contractor in writing to review any part or parts of schedule which either do not meet Contract requirements or are unsatisfactory for City to monitor Project's progress, resources, and status or evaluate monthly payment request by Contractor.

- B. Updating the Project Schedule to reflect actual progress shall not be considered revisions to the Schedule.
- C. To reflect revisions to the Schedule, the Contractor shall provide City with a written narrative with a full description and reasons for each Work activity revised. For revisions affecting the sequence of work, the Contractor shall provide a schedule diagram which compares the original sequence to the revised sequence of work. The Contractor shall provide the written narrative and schedule diagram for revisions two (2) working days in advance of the monthly schedule update meeting.
- D. Schedule revisions shall not be incorporated into any schedule update until the revisions have been reviewed by City. City may request further information and justification for schedule revisions and Contractor shall, within three (3) working days, provide City with a complete written narrative response to City's request.
- E. If the Contractor's revision is still not accepted by City, and the Contractor disagrees with City's position, the Contractor has seven (7) calendar days from receipt of City's letter rejecting the revision to provide a written narrative providing full justification and explanation for the revision. The Contractor's failure to respond in writing within seven (7) calendar days of City's written rejection of a schedule revision shall be contractually interpreted as acceptance of City's position, and the Contractor waives its rights to subsequently dispute or file a claim regarding City's position.
- F. At City's discretion, the Contractor can be required to provide Subcontractor certifications of performance regarding proposed schedule revisions affecting said Subcontractors.

1.10 RECOVERY SCHEDULE

- A. A Recovery Schedule will be submitted when a delay of fourteen (14) calendar days or more to the Final Completion milestone is identified.
- B. The Recovery Schedule is herein defined as the Contractor plan to reconcile current delay days to complete the project on the contract completion date.

1.11 COMPLETION SCHEDULE

- A. If schedule performance, estimated through earned value analysis, is forecasting a trending delay of greater than 21 days over 3 or more months, the Contractor and PMCM will meet to discuss remediation through a Completion Schedule.
- B. The Completion Schedule is herein defined as the Contractor plan to establish a project completion date when the current Final Completion date is deemed no longer achievable. When this happens, the Contractor will submit a schedule to complete that demonstrates a new probable project completion (for example, using cash flow analysis).

1.12 PROJECT DELAYS

A. Time Allowances

- 1. Time is of the essence. Contract Time may only be changed by Change Order, and all time limits stated in the Contract Documents are to mean that time is of the essence.

B. Excusable Delay and Inexcusable Delay Defined

1. In the event the Contractor requests an extension of Contract Time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing Claims and Disputes (Section 25). When requesting time, requests must be submitted with full justification and documentation. If the Contractor fails to submit justification, it waives its right to a time extension at a later date. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work. Any Claim for delay must include the following information as support, without limitation.
 - (a) Changes in the Work ordered by City (“Changes”);
 - (b) Acts or neglect by City, Architect/Engineer, any City Representative, utility owners or other contractors performing other work, not permitted or provided for in the Contract Documents, provided that Contractor has performed its responsibilities under the Contract Documents (including but not limited to pre-bid investigations) (“Acts or Neglect”); or
 - (c) Fires, floods, epidemics, quarantines, abnormal weather conditions beyond the parameters otherwise set forth in this Article, earthquakes, civil or labor disturbances, or acts of God (together, “force majeure events”), provided damages resulting therefrom are not the result of Contractor’s failure to protect the Work as required by Contract Documents (“Force Majeure”).
 - (d) Work delayed which is out of the control of the Contractor may be an Excusable Delay.
2. Excusable Delay. Subject to the provisions on Notice of Delay below, Contract Time may be adjusted in an amount equal to the time lost due to:
 - (a) Changes in the Work ordered by City (“Changes”);
 - (b) Acts or neglect by City, Architect/Engineer, any City Representative, utility owners or other contractors performing other work, not permitted or provided for in the Contract Documents, provided that Contractor has performed its responsibilities under the Contract Documents (including but not limited to pre-bid investigations) (“Acts or Neglect”); or
 - (c) Fires, floods, epidemics, quarantines, abnormal weather conditions beyond the parameters otherwise set forth in this Article, earthquakes, civil or labor disturbances, or acts of God (together, “force majeure events”), provided damages resulting therefrom are not the result of Contractor’s failure to protect the Work as required by Contract Documents (“Force Majeure”).
 - (d) Work delayed which is out of the control of the Contractor may be an Excusable Delay.
3. Inexcusable Delay. Contract Time shall not be extended for any period of time where Contractor (and/or any Subcontractor) is delayed or prevented from completing any part of the Work due to a cause that is within Contractor’s risk or responsibility under the Contract Documents. Delays attributable to or within the control of a Subcontractor, or its subcontractors, or supplier, are deemed delays within the control of Contractor.
 - (a) Work delayed which is in the control of the Contractor is an Inexcusable Delay.
4. Float. Float shall be treated as a Project resource. Contractor shall not be entitled to a time extension for impacts that consume float, but do not impact the critical path.

C. Notice of Delay

1. Within seven (7) calendar days of the beginning of any delay (excepting adverse weather delays), Contractor shall notify City in writing, by submitting a Notice of Delay that shall describe the anticipated delays resulting from the delay event in question. If Contractor requests an extension of time, Contractor shall submit a Time Impact Evaluation (TIE) within 10 calendar days of the Notice of Delay. City will determine all claims and adjustments in the Con-

tract Time. No claim for an adjustment in the Contract Time will be valid and such claim will be waived if not submitted in accordance with the requirements of this subparagraph. In cases of substantial compliance with the seven-day notice requirement here (but not to exceed twenty-one calendar days from the beginning of the delay event), City may in its sole discretion recognize a claim for delay accompanied with the proper TIE, provided Contractor also shows good faith and a manifest lack of prejudice to City from the late notice. Contractor will follow the guidelines set forth in section 1.13 and include description of activities impacted by the delay, including the activity ID.

D. Compensable Time Extensions

1. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Sum in addition to Contract Time only when all of the following conditions are met:
 - (a) The Owner is the sole cause of the delay to the current critical path;
 - (b) The delay is unreasonable under the circumstances involved;
 - (c) The delay was not within the contemplation of Owner and Contractor; and
 - (d) Contractor complies with the claims procedure of the Contract Documents.
 - (e) Excusable delay caused solely by Changes in the Work ordered by City, as provided above, and/or
 - (f) Excusable delay caused solely by Acts or Neglect by City or other person, as provided above.

E. Non-Compensable Time Extensions

1. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Time only, without adjustment in Contract Sum, for
 - (a) Periods of excusable delay caused solely by weather (beyond the adverse weather day allowance shown herein) or Force Majeure events as provided above in this Article, or
 - (b) Periods of concurrent delay, where delay results from two or more causes, one of which is compensable (resulting from Changes or Acts or Neglect as set forth above in this Article), and the other of which is non-compensable or inexcusable, such as: acts or neglect of Contractor, Subcontractors or others for whom Contractor is responsible; other acts, omissions and conditions which would not entitle Contractor to adjustment in Contract Time; adverse weather; and/or actions of Force Majeure as provided above in this Article.

F. Adverse Weather

1. The Contract Adverse Weather Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located. (1.06B, paragraph 19)
2. Contractor shall provide proof that adverse weather actually caused delays to work on the critical path. The proof shall contain the activity ID and name of impacted critical activity. Contractor shall give written notice of intent to claim an adverse weather day within one day of the adverse weather day occurring (see 1.06B.19).
3. In order to qualify as an adverse weather delay with respect to the foregoing parameters: daily rainfall must exceed 0.1 inch at the NOAA station located closest to the Project site, as measured and reported by NOAA. Notwithstanding these allowances, Contractor shall at all times employ all available mitigation measures to enable Work to continue, Contractor shall take reasonable steps to mitigate potential weather delays, such as dewatering the Site, lime treatment, and covering Work and material that could be affected adversely by weather. Failure to do so shall be cause for City to not grant a time extension due to adverse weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.
4. Contractor shall include the foregoing precipitation parameters as a monthly activity in its progress schedule. As Work on the critical path is affected by precipitation, Contractor shall notify City and request that the days be moved to the affected activities. Any adverse weather days remaining shall be considered Project float available to either City or Contractor.
5. Adverse weather delay for precipitation shall be recognized for the actual period of time Contractor proves it was delayed by precipitation exceeding the specified parameters. For example, and not by way of limitation, if precipitation exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be recognized; and conversely, if Contractor proves to City's satisfaction that precipitation exceeding the specified parameters causes delay to Contractor for a period longer than the number of precipitation days incurred (e.g., if it rains or snows during grading work), then Contractor shall be entitled to a time extension equal to the actual period of such delay. Note: Time extension is mitigated in the weather day allowance activity (see section 1.06B.19),
6. During unfavorable weather, wet ground, or other unsuitable construction conditions, Contractor shall employ best practices to protect the Work, manage the construction site and rainwater during inclement weather. Persons performing the Work shall examine surfaces to receive their Work and shall report in writing to Contractor, with copy to City representative and the Architect conditions detrimental to the Work. Failure to examine and report discrepancies makes the Contractor responsible, at no increase in Contract Sum, for correction, City may require. Commencement of Work constitutes acceptance of surface.

G. Liquidated Damages

1. Time is of the essence. Execution of Contract Documents by Contractor shall constitute its acknowledgement that City will actually sustain damages in the form of Contract administration expenses (such as Project management and consultant expenses) in the amount fixed in the Contract Documents for each

and every Day during which completion of Work required is delayed beyond expiration of time fixed for completion plus extensions of time allowed pursuant to provisions hereof.

2. Contractor and City agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of such actual damages incurred by City because of a delay in completion of all or any part of the Work. Contractor and City agree that specified measures of liquidated damages shall be presumed to be the amount of such damages actually sustained by City, and that because of the nature of the Project, it would be impracticable or extremely difficult to fix the actual damages.
3. Liquidated damages for delay shall cover administrative, overhead, interest on bonds, and general loss of public use damages suffered by City as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from City (for example, delay claims of other contractors, subcontractors, tenants, or other third-parties), and defense costs thereof. City may deduct from any money due or to become due to Contractor subsequent to time for completion of entire Work and extensions of time allowed pursuant to provisions hereof, a sum representing then-accrued liquidated damages.
4. Contractor shall not be charged for liquidated damages because of any delays in completion of Work on the critical path which are not the fault or negligence of Contractor or its Subcontractors, including acts of God as defined in Public Contract Code Section 7105, acts of enemy, epidemics, and quarantine restrictions. Contractor shall, within ten (10) days of beginning of any delay, notify Owner in writing of causes of delay including documentation and facts explaining the delay. Owner shall review the facts and extent of any delay and shall grant extension(s) of time for completing Work when, in its judgment, the findings of fact justify an extension. Extension(s) of time shall apply only to that portion of Work affected by delay and shall not apply to other portions of Work not so affected. An extension of time may only be granted if Contractor has timely submitted the notice and supporting documentation required by this section, Section 25 and the Construction Schedule as required herein.
5. Refer to section 00 3113 "Preliminary Construction Schedule" for more details.

1.13 TIME IMPACT EVALUATION ("TIE") FOR CHANGE ORDERS, AND OTHER DELAYS

A. Owner Directed Added Work

1. When Contractor is directed to proceed with changed Work, the Contractor shall prepare and submit within seven (7) calendar days from the Notice to Proceed a TIE which includes both a written narrative and a delay fragnet integrated into the contemporaneous schedule depicting how the changed Work affects other schedule activities. The schedule diagram shall show how the Contractor proposes to incorporate the changed Work in the schedule and how it impacts the current schedule-update critical path. The Contractor is also responsible for requesting time extensions based on the TIE's impact on the critical path. The diagram must be tied to the main sequence of schedule activities to enable City to evaluate the impact of changed Work to the scheduled critical path.

2. Contractor shall be responsible for all costs associated with the preparation of TIEs, and the process of incorporating them into the current schedule update.
3. Once agreement has been reached on a TIE, the Contract Time will be adjusted accordingly (via Change Order Request and Change Order). If agreement is not reached on a TIE, the Contract Time may be extended in an amount City allows, and the Contractor may submit a claim for additional time claimed by contractor.

B. Contract Added Work Claim

1. If the schedule final completion date is extended due to added work scope, the Contractor is required to provide a time and cost impact within fourteen (14) calendar days and prior to proceeding with added work, unless approved by Owner.
2. If the Contractor believes critical work has been delayed due to circumstances beyond their control, a TIE shall be submitted as described above.
3. The TIE will be reviewed with fourteen (14) calendar days and assessed as excusable / compensable, excusable / non-compensable, or non-excusable / non-compensable.
4. Delay Fragnet
 - (a) The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.
 - (b) Specific logical ties to the Contract Schedule for the proposed changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay. (A portion of any delay of seven (7) days or more must be provided.)
 - (c) A revised Construction Schedule must be submitted showing the delay and impact on the Final Completion date.

1.14 TIME EXTENSIONS

- A. The Contractor is responsible for requesting time extensions for time impacts that, in the opinion of the Contractor, impact the critical path of the current Progress Schedule update. Notice of time impacts shall be given in accord with the General Conditions.
- B. Where an event for which City is responsible impacts the projected Final Completion date, the Contractor shall provide a written mitigation plan, including a schedule diagram, which explains how (e.g., increase crew size, overtime, etc.) the impact can be mitigated. The Contractor shall also include a detailed cost breakdown of the labor, equipment, and material the Contractor would expend to mitigate City-caused time impact. The Contractor shall submit its mitigation plan to City within fourteen (14) calendar days from the date of discovery of the impact. The Contractor is responsible for the cost to prepare the mitigation plan.
- C. Failure to request time, provide A, or provide the required mitigation plan will result in Contractor waiving its right to a time extension and cost to mitigate the delay.

- D. No time will be granted under this Contract for cumulative effect of changes.
- E. City will not be obligated to consider any time extension request unless the Contractor complies with the requirements of Contract Documents.
- F. Failure of the Contractor to perform in accordance with the current schedule update shall not be excused by submittal of time extension requests.
- G. If the Contractor does not submit a TIE within the required seven (7) calendar days for any issue, it is mutually agreed that the Contractor does not require a time extension for said issue.
- H. To avoid possible delay risks, the Contractor is aware that governmental agencies, including, without limitation, the City of Hayward, gas companies, electrical utility companies, water districts, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Accordingly, Contractor shall include in its schedule and bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Thus, Contractor is not entitled to make a claim for damages or delays arising from the required review of Contractor's drawings by third parties.

1.15 SCHEDULE REPORTS

- A. Submit the following reports with the Baseline Schedule and each monthly update.
- B. Required Reports:
 - 1. Two activity listing reports: one sorted by activity number and one by total Project Float. These reports shall also include each activity's early/late and actual start and finish dates, original and remaining duration, Project Float, responsibility code, and the logic relationship of activities.
 - 2. Report showing the longest critical path.
 - 3. Cost report sorted by activity number including each activity's associated cost, percentage of Work accomplished, earned value- to date, previous payments, and amount earned for current update period.
 - 4. Schedule plots presenting time-scaled network diagram showing activities and their relationships with the controlling operations or critical path clearly highlighted.
 - 5. Upon request, the Contractor may be required to submit a Planned versus Actual labor histogram calculated by early start.
 - 6. 3-week look-ahead schedule. The 3-week look ahead shall be derived from the update schedule with referenced correlating activities.
 - 7. Actual dates achieved on activities for the past period. This report should be submitted to the City prior to the overall update submittal for field verification.
 - 8. Schedule update narrative describing items such as current critical path, issues, schedule revisions, and other.
 - 9. All reports noted above shall be clearly dated (including data date) and titled.

C. Other Reports:

In addition to above reports, City may request, from month to month, any of the following reports.

1. Activities by early start.
2. Activities by late start.
3. Activities grouped by Subcontractors or selected trades.

D. Furnish City with report files on media as described previously in this document.

1.16 PROGRESS SCHEDULE NARRATIVE

A. In addition to report submittal requirements for Project Schedule identified in the previous Section, Contractor shall provide a monthly project status report (i.e., written narrative report) to be submitted in conjunction with each schedule as specified herein. Status reporting shall be in form specified below.

B. Contractor shall prepare monthly written narrative reports of status of Project for submission to City. Written status reports shall include:

1. Status of major Project components (percent (%) complete, amount of time ahead or behind schedule) and an explanation of how Project will be brought back on schedule if delays have occurred.
2. Progress made on critical activities indicated on Project Schedule.
3. Explanations for any lack of work on critical path activities planned to be performed during last month.
4. Explanations for any schedule changes, including changes to logic or to activity durations.
5. List of critical activities scheduled to be performed next month.
6. Status of major material and equipment procurement.
7. Any delays encountered during reporting period.
8. Contractor may include any other information pertinent to status of Project. Contractor shall include additional status information requested by City at no additional cost.
9. Status reports, and the information contained therein, shall not be construed as claims, notice of claims, notice of delay, or requests for changes or compensation.

1.17 LOOKAHEAD SCHEDULE REPORT

By the end of the business day on the day prior to the Weekly Progress Meeting, the Contractor shall provide a time-scaled three (3) week Look-ahead Schedule that is based on, and correlated by activity number to, the current accepted schedule (i.e., Initial, Baseline or Progress Schedule). Look-ahead Schedule shall reflect ALL schedule activities that were

planned to take place during this period based on the current schedule. Schedule shall include at least the following: area/building, activity ID, activity description, responsible contractor/subcontractor, as well as planned start date, duration and completion date. Activities noted to be on the critical path per the current schedule shall be highlighted accordingly. Contractor may include multiple activities that relate to a single activity ID if this provides clarity to sequencing, etc.

1.18 DAILY CONSTRUCTION REPORTS

On a daily basis (prior to the end-of-business on the day of the work being reported), Contractor shall submit via the Project Management Software a Daily Construction Report to City for each workday, including weekends and holidays. Contractor shall develop the Daily Construction Reports on a computer-generated database capable of sorting daily Work, manpower, and man-hours by Contractor, Subcontractor, area, sub-area, and Change Order Work. Obtain City's written approval of Daily Construction Report data base format prior to implementation. Include in report:

- A. Project name and Project number.
- B. Contractor's name and address.
- C. Weather, temperature, and any unusual site conditions. Contractor shall note on this report any Notices issued that day relating to these conditions.
- D. Brief description and location of the day's scheduled activities and any special problems and accidents, including Work of Subcontractors. Descriptions shall be referenced to scheduled activities and include all related schedule activity IDs (as well as CORs, CDs, etc).
- E. Worker quantities for its own Work force and for Subcontractors of any tier.
- F. Equipment, other than hand tools, utilized by Contractor and Subcontractors.
- G. Material deliveries.
- H. High and low temperatures and general weather conditions.
- I. Accidents.
- J. Meetings and significant decisions.
- K. Unusual events (refer to special reports).
- L. Stoppages, delays, shortages, and losses.
- M. Meter readings and similar recordings.
- N. Emergency procedures.
- O. Orders and requests of authorities having jurisdiction.
- P. Change Orders received and implemented.
- Q. Construction Change Directives received and implemented.

- R. Services connected and disconnected.
- S. Equipment or system tests and startups.
- T. Partial Completions and occupancies.
- U. Updates to any and all Activity IDs projected to have activity based on the current accepted Project Schedule.

2. - PRODUCTS Not Used.

3. - EXECUTION Not Used.

- END OF SECTION -

SECTION 01 32-19 - SUBMITTAL SCHEDULES / DAILY REPORTS / FIELD REPORTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Submittals Schedule.
 - 2. Daily construction reports.
 - 3. Field condition reports.
- B. See Section 01 2900 "Payment Procedures" for submitting the Schedule of Values.
- C. See Section 01 3233 "Photographic Documentation" for submitting construction photographs.

1.2 SUBMITTALS

- A. Submittals Schedule: Submit electronic version of schedule (PDF and source file). Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor.
 - 5. Description of the Work covered.
 - 6. Scheduled date for Architect's final release or acceptance.
- B. Daily Construction Reports: Submit PDF copy to PROCORE on a daily basis by end of business the same day.
- C. Field Condition Reports: Submit PDF copy of report at time of discovery of differing conditions.

1.3 COORDINATION

- A. Coordinate preparation and processing of reports with performance of construction activities and with scheduling and reporting of separate contractors.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, re-submittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. List of subcontractors and quantity of workforce for each at Project site (including for General Contractor).
 2. Ongoing tasks, with ALL Activity IDs aligning with project schedule activity.
 3. Equipment at Project site.
 4. Material deliveries.
 5. High and low temperatures and general weather conditions.
 6. Accidents.
 7. Stoppages, delays, shortages, and losses.
 8. Meter readings and similar recordings.
 9. Orders and requests of authorities having jurisdiction.
 10. Services connected and disconnected.
 11. Equipment or system tests and startups.
- B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a request for interpretation on CSI Form 13.2A or as a Request for Information, as appropriate. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 3219

SECTION 01 3233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section describes the requirements for furnishing photographs depicting work progress.

1.2 DESCRIPTION

- A. Furnish photographs of the site construction throughout the progress of the Work.
- B. Take additional photographs on cutoff date for each Application for Payment to document extent of all work complete.
- C. Take additional photographs of specific items as requested by the Construction Manager, Owner, Architect or Inspector.
- D. In addition, take photographs at beginning and completion of the following elements:
 - 1. Site clearing.
 - 2. Excavation
 - 3. Utility Trenching
 - 4. Foundations
 - 5. Structural Framing
 - 6. Steel Erections
 - 7. Enclosure of Building
 - a. Interior
 - b. Exterior
 - 8. Landscaping
 - 9. Final Completion.

1.3 ELECTRONIC FILES

- A. Deliver pictures on CDs, indexed and in chronological order, to Construction Manager as part of Record Documents Catalog.
- B. All photos to be in a JPEG format.
- C. Upload photos on a weekly basis to the project management software organized in folders separated by date. Upload photos related to each Application for Payment under a separate folder.
- D. Make photos available to Owner at any time in electronic format.

1.4 TECHNIQUE

- A. Factual presentation, with correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 3233

SECTION 01 3234 – VIDEO PAN-TILT-ZOOM (PTZ) CELLULAR CONSTRUCTION CAMERA

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section describes the requirements for furnishing video camera system for capturing work progress.

1.2 DESCRIPTION

- A. Furnish on demand live video stream of the site construction throughout the progress of the Work.
- B. Provide professional grade 2-Megapixel camera system providing on demand live video streaming for real-time access at 1080p over a cellular network with storage and remote customer access to stored still images. All hardware, software, and time-lapse movie production services to be provided by a proven construction camera system vendor.

1.3 VENDOR

- A. Basis-of-Design Product: The design for the video camera system is based on the vendor identified below. Subject to compliance with requirements, provide the named product or a comparable product by the following:
 - 1. Basis-of-Design:
OxBlue Corporation
1777 Ellsworth Industrial Blvd NW
Atlanta, GA 30318
Zac Davis
(404) 400-7606
www.OxBlue.com

1.4 TIME-LAPSE MOVIE TECHNOLOGY & SERVICES

- A. Automatically Generated Time-Lapse Movies
 - 1. System shall automatically generate up-to-date high-definition time-lapse movies throughout the duration of the project. Automatically generated time-lapse movies shall be available for download at any time. The online system shall intelligently select frames in order to produce time-lapse movies of an appropriate duration for viewing on the Web, typically 30-60 seconds.
- B. User Created Custom Time-Lapse Movies
 - 1. System shall allow users with appropriate permissions to create custom time-lapse movies at any time during the project. Users shall be able to control start and end dates, filter daily images by time, and specify time-lapse movie duration.
- C. Professionally Produced Time-Lapse Movies:
 - 1. At the completion of the project the System Vendor shall create a professionally produced time-lapse movie of the project. As part of the service, the time-lapse movie shall be prepared based on the Owner's instructions for resolution, duration, date range, time range, and audio.

PART 2 - PRODUCTS

2.1 COMPONENTS

- A. Camera
 - 1. Sapphire PTZ
 - 2. Resolution: 2 Megapixel (1920X1080)
 - 3. Pan: 360°
 - 4. Tilt: 180°
 - 5. 30x Optical zoom
 - 6. Progressive scan CMOS 1/2.8" image sensor
 - 7. Lens: 4.3-129 mm, F1.6-4.7, autofocus, auto-iris
 - 8. 100 preset positions
- B. Video
 - 1. Live HD video streaming
 - 2. Current weather detection
 - 3. C. Aspect ratio of video 16:9 (widescreen)
 - 4. Stream profile: H.264
 - 5. 1280x720 recording resolution
 - 6. 1080p streaming resolution
 - 7. Dynamically sized viewing window
- C. Data Connectivity and Storage
 - 1. Cellular data services provided by the System Vendor
 - 2. Onboard Memory: Up to 4 Week Video Storage. Resolution can be adjusted but will impact storage time.
 - 3. C. Remote Storage: Archive a still image approximately every 10 minutes.
- D. Power Connection
 - 1. 120 / 240 VAC (optional 12 VDC version for compatible OxBlue solar power station available)
- E. Dimensions and Weight
 - 1. Camera Dimensions: 8.56" L (21.7 cm) X 7.38" W (18.75 cm) X 7.38" H (18.75 cm)
 - 2. Mount Dimensions: 10.81" L (27.46 cm) X 7.38" W (18.75 cm) X 7.38" H (18.75 cm)
 - 3. Weight: 5.5 lb. (2.5 kg) installed
- F. Mount
 - 1. Pole mount provided by the System Vendor or General Contractor
 - 2. Optional mounts available
- G. Operating Environment and Controls
 - 1. -40 to 140°F (-40 to 60°C)
 - 2. 120 / 240 VAC units come standard with blower, and defroster; 12 VDC units come standard with blower.
- H. Video Controls
 - 1. Snap shot function
 - 2. 8 button directional input
 - 3. Home button
- I. Software
 - 1. Responsive software interface for use on computer, tablet and mobile screens
 - 2. Display Owner or Project logo on desktop software interface

3. Dashboard display of all cameras
 4. Camera search capability
 5. Visual calendar showing actual photos from each day of the project
 6. Access to each individual photo archived
 7. Ability to schedule the automated delivery of images & time-lapses to users via email
 8. Display weather data with each image
 9. Ability to compare images from two cameras or two specific times simultaneously
 10. Ability to overlay and compare images from different times
 11. Interactive map showing project location
 12. Provide iPhone/iPad app and Android app
- J. Hosting and Website Integration
1. Provide links to thumbnails of most recent image
 2. Provide API access for use in software and website integration
- K. Data Security and Infrastructure
1. Multiple access options shall be available, including publicly available links, username authentication, IP restrictions, and HTTPS communication protocols
 2. Actual access method used shall be specified by the Owner
 3. C. Data shall be stored on redundant servers owned and managed by the System Vendor
 4. Optional time delay feature for time-lapse videos and images on websites
- L. Solar Power Station for Camera (Optional)
1. Turnkey system designed specifically for use with the camera
 2. 5-day minimum solar autonomy based on lowest monthly average solar hours for the region
 3. C. Charge control with digital display meter showing system status
 4. 1-yr minimum system warranty with up to 25-yr solar module warranty
 5. Domestic freight included in solar power station cost
- 2.2 CLOSEOUT SUBMITTAL
- A. Submit all digital still images without alteration, manipulation, editing, or modifications using image-editing software.
- B. Submit a professionally produced high-definition time-lapse movie of the project. Editing shall include image stabilization, color correction, removal of inclement weather footage, and removal of images outside the desired daily time range to be determined by the Owner.
- C. All images and time-lapse footage shall be the property of the Owner.
- 2.3 WARRANTY
- A. Manufacturer Warranty: Manufacturer agrees to repair or replace components of system that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
- B. Warranty Period: Video PTZ Camera shall have a three-year hardware warranty.

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 3234

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SECTION 01 3300 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 RELATED SECTIONS

- A. Section 01 2900 –Payment Procedures: Submitting Applications for Payment and the Schedule of Values.
- B. Section 01 3100 - Project Management and Coordination: Submitting and distributing meeting and conference minutes and for submitting Coordination Drawings.
- C. Section 01 3200 - Construction Progress Documentation: Submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule.
- D. Section 01 4000 - Quality Requirements: Submitting test and inspection reports.
- E. Section 01 4339 – Mock-ups.
- F. Section 01 43 49 – Delegated Design: Requirements for deferred submittals to DSA.
- G. Section 01 7823 - Operation and Maintenance Data for submitting operation and maintenance manuals.
- H. Section 017700 - Closeout Procedures for submitting warranties.
- I. Section 01 7839 - Project Record Documents for submitting Record Drawings, Record Specifications, and Record Product Data.
- J. Section 01 7900 - Demonstration and Training for submitting videotapes of demonstration of equipment and training of Owner's personnel.
- K. Section 01 8113 “Sustainable Design Requirements” for LEED submittals.
 - 1. LEED submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated LEED requirements.
 - 2. Refer to individual Sections for LEED submittal requirements for Work in those Sections.
- L. Divisions 2 through 48 Sections for specific requirements for submittals in those Sections.

1.4 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's, City's Project Manager's, and Construction Manager's responsive action.
- B. Informational Submittals: Written information that does not require Architect's, City's Project Manager's, and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements.

1.5 DISTRIBUTION OF SCHEDULES

- A. Distribute copies of the Submittal Schedule to the Architect, Owner, Construction Manager, subcontractors, and other parties required to comply with scheduled dates. Post copies in the temporary field office. When revisions are made, distribute to the same parties and post in the same locations.
- B. Updating: Revise Schedule after each meeting or activity, where revisions have been made. Issue the updated Schedules concurrently with report of each meeting.

1.6 SUBMITTAL PROCEDURES

- A. Architect's Digital Data Files: At Contractor's written request, electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
 - 1. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - 2. Digital Drawing Software Program: The Contract Drawings are available in REVIT 2017.
 - 3. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Architect.
 - 4. The following digital data files will be furnished for each appropriate discipline:
 - a. Floor plans.
 - b. Reflected ceiling plans.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Owner, Construction Manager and Architect reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" and "Submittal Schedules, Daily and Field Reports" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow **15 business days** for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 15 business days for review of each resubmittal.
 4. Sequential Review: Where sequential review of submittals by Architect, Owner's consultants, Owner, or other parties is indicated, allow 15 business days for initial review of each submittal.
 5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Owner's consultants, allow 10 business days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-06 1000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-06 1000.01.A).
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of City's Project Manager
 - e. Name of Construction Manager.
 - f. Name of Contractor.
 - g. Name of firm or entity that prepared submittal.
 - h. Names of subcontractor, manufacturer, and supplier.
 - i. Category and type of submittal.
 - j. Submittal purpose and description.
 - k. Specification Section number and title.
 - l. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - m. Drawing number and detail references, as appropriate.
 - n. Location(s) where product is to be installed, as appropriate.
 - o. Related physical samples submitted directly.
 - p. Indication of full or partial submittal.
 - q. Transmittal number, numbered consecutively.
 - r. Submittal and transmittal distribution record.
 - s. Other necessary identification.
 - t. Remarks.
 5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.

- d. Product name.
 - F. Options: Identify options requiring selection by Architect.
 - G. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
 - H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked "Approved as Noted."
 - I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
 - J. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.
- 1.7 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES
- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:
 - 1. After receipt of signed release form, Autodesk Revit (in lieu of Cad) files will be made available at completion of DSA approval in the Architect's working formats without modifications.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. Post electronic submittals as PDF electronic files directly to PROCORE.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.

2.2 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections. Submit one electronic copy unless specified otherwise.
 - 1. Each submittal must contain the DSA application number.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.

3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operation and maintenance manuals.
 - k. Compliance with specified referenced standards.
 - l. Testing by recognized testing agency.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
 4. Submit Product Data before or concurrent with Samples.
 5. Number of Copies: If not electronic submittals, submit three copies of Product Data, unless otherwise indicated. Architect, through Construction Manager, will return two copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shop work manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Design calculations.
 - j. Compliance with specified standards.
 - k. Notation of coordination requirements.
 - l. Notation of dimensions established by field measurement.
 - m. Relationship to adjoining construction clearly indicated.
 - n. Seal and signature of professional engineer if specified.
 - o. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 40 inches (750 by 1000 mm).
 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file.
 - b. Provide hard copy of reviewed submittal for record document purposes if required by the Owner.
- D. Samples: Submit physical Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Submit a copy of the transmittal in PROCORE, along with photos of all related samples.

3. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of appropriate Specification Section.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, through Construction Manager, will return submittal with options selected.
 6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Owner/Construction Manager and Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
1. Name, address, and telephone number of the entity performing subcontract or supplying products.
 2. Number and title of related Specification Section(s) covered by subcontract.
 3. Drawing number and detail references, as appropriate, covered by subcontract.
- F. LEED Submittals: Comply with requirements specified in Section 01 8113 "Sustainable Design Requirements."
1. Submit LEED submittals in the following format:
 - a. PDF electronic file.

2.3 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.

1. Number of Copies: If not electronic submittals, submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.
 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 3. Test and Inspection Reports: Comply with requirements specified in Division 1 Section "Quality Requirements."
 4. Contractor's statement that the Submittal complies with the Construction Documents.
- B. Coordination Drawings: Comply with requirements specified in Division 1 Section "Project Management and Coordination."
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- D. Sustainability Submittals: Comply with requirements specified in Section 01 8113 Sustainable Design Requirements.
- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- K. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- L. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
1. Name of evaluation organization.
 2. Date of evaluation.
 3. Time period when report is in effect.
 4. Product and manufacturers' names.

5. Description of product.
 6. Test procedures and results.
 7. Limitations of use.
- M. Schedule of Tests and Inspections: Comply with requirements specified in Division 1 Section "Quality Requirements."
- N. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- O. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- P. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- Q. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- R. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."
- S. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
1. Preparation of substrates.
 2. Required substrate tolerances.
 3. Sequence of installation or erection.
 4. Required installation tolerances.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- T. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement of whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.

- U. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Architect.
 - 1. Architect will not review submittals that include MSDSs and will return the entire submittal for resubmittal.

2.4 DELEGATED DESIGN SUBMITTALS

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file and three copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

2.5 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:
 - 1. After receipt of signed release form, Autodesk Revit (in lieu of Cad) files will be made available at completion of DSA approval in the Architect's working formats without modifications.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect, Owner and Construction Manager.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER'S ACTION

- A. General: Architect and Construction Manager will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect and Construction Manager will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:

1. "No Exceptions Taken": Submittal has been reviewed only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Contractor is responsible for compliance with the requirements of the plans and specifications. Review of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for dimensions to be confirmed and correlated at the job site, information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction, coordination of the work of all trades and for performing all work in a safe and satisfactory manner. No comments have been recorded and no resubmittal is required.
 2. "Revise as Noted, Distribute Record Copy" Submittal has been reviewed in accordance with the above. When the Contractor has made the corrections noted in the review comments, the submittal will be considered to have the same status as if it had been marked "Reviewed". No resubmittal is required and no action resubmittal shall be made. However the Contractor, Agency or Architect may request that a record copy be submitted as an Informational Submittal for any of the concerned parties.
 3. "Revise as Noted, Resubmit": The Contractor shall revise the submittal based on the review comments provided and shall resubmit the entire submittal until a mark of 'Reviewed' or 'Reviewed, Make Corrections Noted, No Resubmittal Required' is obtained.
 4. "Rejected, Resubmit": The submittal does not comply with the Contract Documents. Resubmit in conformance with the Contract Documents.
- C. Informational Submittals: Architect and Construction Manager will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect and Construction Manager will forward each submittal to appropriate party.
- D. Partial or incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 01 3300

DISCLAIMER FOR USE OF ELECTRONIC CAD FILES

The recipient understands and agrees that the information contained in the attached electronic file(s) is the internal working information of RossDrulisCusenbery Architecture. Such internal working information is not intended as a finished product, and may contain erroneous, extraneous or incomplete information. All information contained in said electronic file(s) is subject to change without notice.

Said information is furnished at the request of recipient for his sole convenience, and the recipient agrees to assume all responsibilities and risks of its use. The latest hardcopy print produced by RossDrulisCusenbery Architecture is the final instrument of RossDrulisCusenbery Architecture' professional services and takes precedence over the electronic version.

The recipient further understands and agrees that the internal working information contained in the electronic file is the property of RossDrulisCusenbery Architecture. Said internal information shall not be used by the recipient on any other project, nor released to any other party without the consent of RossDrulisCusenbery Architecture. The use of said electronic file(s) constitutes the recipient's acceptance of these terms.

Per your request I'm forwarding you in Revit 2018 the

Hayward Fire Station #6 Fire Training Center
Hayward, CA
RossDrulisCusenbery Architecture Project No. 201 6039

In accordance with the Contract in Project Close-Out, these drawings are *"based on information provided by the Contractor which the Architect shall be entitled to rely upon for accuracy without Architect's verification in the field or otherwise"*.

If you have any questions please call 707.996.8448.
Thank you,

RossDrulisCusenbery Architecture

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SECTION 01 3544 – STORM WATER POLLUTION PREVENTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The work of this section consists of implementing measures to prevent Storm Water Pollution during construction activities, in accordance with Federal, State, and local regulations, and in accordance with the Storm Water Pollution Prevention Plan (SWPPP) to be prepared for this project.

1.2 SUBMITTALS

- A. Submit Storm Water Pollution Prevention Plan to Owner after contract award and before the preconstruction conference.
- B. Plans showing proposed arrangements and methods for control of erosion, sedimentation, and pollutant conveyance in storm water resulting from construction activities. Show that the Storm water Pollution Prevention Plan satisfies all State NPDES permit requirements.
- C. Provide sufficient information for evaluation of the following:
 - 1. Erosion protection measures and products.
 - 2. Drainage management strategies.
 - 3. Surface restoration.
- D. Submit schedules for inspection and monitoring of all storm water pollution prevention measures.
- E. Submit manufacturer's product information and installation recommendations for silt fence, filter fabric and erosion control blanket, straw bales, and any other materials proposed for use on this project.

1.3 QUALITY ASSURANCE

- A. Before commencing construction activities, such as grading, excavation or filling in any part of the site, Contractor shall plan for temporary structures to guide runoff away from the work area and to capture eroded material before it reaches natural water courses. The measures shall be in accordance with reviewed and approved storm water pollution prevention plans.
- B. Arrange construction activities to minimize erosion to the maximum practical extent. Clearing, excavation, and grading shall be limited to those areas of the project site necessary for construction. Minimize the area exposed and unprotected.
- C. Clearly mark and delineate the limits of work activities. Do not allow equipment to operate outside the limits of work or to disturb existing vegetation. Complete excavation and grading during the dry season to the maximum extent possible.

1.4 REGULATORY REQUIREMENTS

- A. Apply and obtain all required permits in a timely fashion, as there may be significant lead time in obtaining permits from the local NPDES Permitting Agency.

B. Implement the requirements of the National Pollutant Discharge Elimination System (NPDES) for erosion control due to storm water runoff during construction.

1. This project lies within the boundaries of the San Francisco Bay Region (2) Regional Water Quality Control Board (RWQCB).

2. The State Water Resources Control Board (SWRCB) has issued a statewide general permit entitled "Order No. 99 08 DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity" that regulates discharges of storm water and non storm water from construction activities disturbing one acre or more of soil in a common plan of development. Sampling and analysis requirements as specified in SWRCB Resolution No. 2001 46 are added to the statewide general permit. Copies of the statewide permit and modifications thereto are available for review from the SWRCB, Storm Water Permit Unit, 1001 "I" Street, P.O. Box 1977, Sacramento, California 95812 1977, Telephone: (916) 341 5254 and may also be obtained at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/

3. This project shall conform to the permit and modifications thereto. The Contractor shall maintain copies of the permit at the project site and shall make it available during construction.

4. The Contractor shall know and comply with provisions of Federal, State, and local regulations and requirements that govern the Contractor's operations and storm water and non storm water discharges from the project site and areas of disturbance outside the project limits during construction.

5. The Contractor shall notify the Owner immediately upon request from the regulatory agencies to enter, inspect, sample, monitor, or otherwise access the project site or the Contractor's records pertaining to water pollution control work. The Contractor and the Department shall provide copies of correspondence, notices of violation, enforcement actions, or proposed fines by regulatory agencies to the requesting regulatory agency.

6. The Contractor shall perform all data entry and updates throughout the project (as a Data Submitter in the on-line Storm Water Multiple Application and Report Tracking System (SMARTS) for all sampling and analysis required for the assigned project Risk Level in accordance with the statewide Construction General Permit for Stormwater.

B-C. Notice of Intent (NOI)

1. The Contractor shall file a Notice of Intent (NOI), implement the accepted SWPPP during construction and, upon completion of the construction, file a Notice of Termination (NOT), all as described in the following requirements. Implement all good housekeeping practices, inspections and record keeping.

2. Provide a Draft SWPPP for the project which includes the following information and forms:

- a. Site description.
- b. Expected sequencing of operations and construction schedule.
- c. Weather monitoring procedure.
- d. Descriptions and details of erosion controls, including dust control.
- e. Erosion control plans.
- f. Controls for other potential onsite storm water pollutants.
- g. Applicable specifications.
- h. Maintenance and inspection procedures and forms.

- i. Description of potential non-storm water discharges at site.
 - j. Notice of Intent (NOI) form.
 - k. Notice of Termination (NOT) form.
 - l. Contractor and subcontractor Certification forms.
 - m. Other record keeping forms and procedures.
 - n. Good housekeeping practices and procedures, including vehicle wash-down areas, protection of equipment storage and maintenance areas, and sweeping of roadways related to hauling activities.
3. The Contractor and Owner will jointly review the draft SWPPP and agree to any needed revisions. The Contractor will then accept and sign the revised SWPPP. When the SWPPP is accepted, it will be the document in force on the project. The accepted SWPPP will describe and ensure implementation of the practices which will be used to reduce the pollutants in storm water discharges to assure compliance with the terms and conditions of the EPA permit. Place the SWPPP and all updates in a three-ring binder so that completed inspection forms and other records may be inserted. The Contractor shall maintain a current copy of the SWPPP and all associated records and forms at the jobsite throughout the duration of the project. The SWPPP shall be available for public inspection.
 4. Implement the SWPPP as required throughout the construction period and maintain all erosion control elements in proper working order. Do not perform clearing and grubbing or earthwork until the SWPPP has been implemented. Prior to construction, the Contractor and all subcontractors shall sign certifications (included in the SWPPP) that they understand the requirements of the NPDES permit. All subcontractors shall comply with the requirements of the NPDES under the supervision of the Contractor. The contractor shall designate the erosion control supervisor who will be responsible for implementing the SWPPP. The erosion control supervisor shall be familiar with the SWPPP procedures and practices and shall ensure that emergency procedures and the SWPPP are updated as needed and available for inspection. The SWPPP (including inspection forms) and all data used to complete the NOI shall be provided to the Owner at the completion of the project.
 5. Inspections and Revisions to Plan:
 - a. The Contractor will perform a weekly inspection of the site. The inspection shall include disturbed areas that have not been finally stabilized, areas used for storage of materials, locations where vehicles enter or exit the site, and all erosion and sediment controls that are included in the Plan. Inspections shall be documented on forms provided in the Plan. The inspection forms shall be retained onsite in the Plan notebook throughout the construction period.
 - b. It may be necessary to revise the Plan during construction to make necessary improvements or revisions or to respond to unforeseen conditions noted during construction or site inspections. For that purpose, the Plan shall specify the mechanism whereby revisions may be proposed by the Contractor or the Landlord and incorporated into the Plan, including review and acceptance of minor changes. The Contractor and the Landlord will jointly accept and sign each revision to the Plan before implementation. Accepted modifications will be implemented within 7 calendar days following the date of the inspection when deficiencies or necessary corrections are first noted.
 - c. Temporary erosion and pollution control measures shall be used to correct conditions that develop during construction that were not foreseen during design, that are needed prior to installation of permanent control features, or that are needed temporarily to control erosion that developed during normal construction practices but are not associated with permanent control features on the project.
 - d. Provide additional temporary erosion and pollution controls made necessary by Contractor's errors or negligence at no additional cost to the Owner.
 - e. Maintain erosion and sediment control features until final acceptance of project.

~~C-D.~~ Notice of Termination (NOT)

1. Upon final acceptance, the Contractor shall file a NOT.

1.5 PROJECT CONDITIONS

- A. The Contractor shall maintain records of work performed on the sediment control structures.
- B. The Contractor shall not remove any erosion or sediment control measure without prior permission from the Owner.
- C. The Contractor shall obtain approval from the Owner prior to making changes to erosion control plans.

1.6 SEQUENCE OF CONSTRUCTION

- A. The Contractor shall be responsible for arranging and conducting an Erosion and Sediment Control meeting/briefing to inform all parties scheduled to be on-site during the project of the measures to be implemented for proper erosion and sediment control (may be included as part of the preconstruction meeting).
 1. Installation of silt fences, storm drain protection, and all other forms of erosion and sediment control shall not begin until after this meeting has occurred.
- B. The Contractor shall notify the Owner in writing and by telephone of the following events:
 1. The required erosion and sediment control meeting/briefing.
 2. Following installation of required sediment control structures.
 3. Prior to removal of or modification to sediment control structures.
 4. Prior to removal of all sediment control structures.
- C. Silt fences, storm drain protection, and all other forms of erosion and sediment control shall be installed, inspected, and accepted by the Contractor before beginning any utility excavation.
- D. Temporary silt fences shall be installed around any stockpiles and/or excavated material that cannot be backfilled during the same day in which it was excavated. Temporary silt fences shall also be placed immediately downstream of any utility trench that has not been backfilled at the end of the working day. Temporary silt fences shall be installed prior to leaving the work site for the day.
- E. Silt fences and storm drain protection shall be inspected by the Contractor weekly. Repairs to these devices shall be completed prior to leaving the work site for the day.
- F. The Contractor shall prevent the deposition of materials onto paved areas. The Contractor shall inspect the paved areas for deposited materials weekly and remove the materials immediately.
- G. Silt fences shall be removed with permission of the Landlord within 20 working days after final acceptance of the project and/or after the establishment of permanent stabilization of all excavations and fill areas.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. Before the work begins, sufficient equipment shall be available on the site to assure that the operation and adequacy of the erosion control plans can be continuously maintained.

2.2 EROSION CONTROL MEASURES

- A. Erosion control measures shall consist of silt fencing or equivalent (eg. Wattles, etc.), barrier protectors, straw bales, temporary soil retention blankets, excelsior drainage filters, sediment traps and berms.
- B. Berms and excelsior drainage filters shall be used to form sediment traps and to control run-on and run-off into other areas, including creeks, streams, marshes, access roads, well areas, and the staging areas.
- C. Erosion control measures shall be used to contain only direct precipitation in the construction zone. The contained water shall be allowed to percolate into the ground or drain slowly through the drainage filter sediment traps.
- D. Earthen sediment traps or holding ponds shall not be used unless accepted by the Owner.

PART 3 - EXECUTION

3.1 GENERAL DESCRIPTION

- A. Furnish, install, maintain, and operate necessary control measures and other equipment necessary to prevent erosion to the maximum extent practical, including implementation of Best Management Practices (BMPs).
 - 1. Temporary measures shall be to Contractor's own design and Contractor shall be solely responsible for risks related to the management of erosion control during construction.
- B. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operations that will disturb the natural erosion protection.
- C. Schedule work to expose areas subject to erosion for the shortest possible time, and preserve natural vegetation to the greatest extent practicable. Temporary storage and construction buildings shall be located, and construction traffic routed, to minimize erosion. Temporary fast-growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.

3.2 METHODS

- A. Construct berms to reduce runoff velocity as well as direct surface runoff around and away from all fuel containment, storage, and borrow areas.
- B. Divert surface runoff around and away from cut and fill slopes by constructing berms or ditches at the base of disturbed slopes. Provide conveyance for the runoff in temporary pipes or protected channels to temporary sediment traps.
- C. Place drainage filters around all catch basins to create sediment traps to control run-off from the construction area.

- D. Excess water used for dust control shall be contained within the demolition areas by the erosion control measures.

3.3 MAINTENANCE OF TEMPORARY FACILITIES

- A. Inspect erosion and sediment control structures weekly. Ensure erosion and sediment control structures remain effective throughout excavation and grading operations. Relocate structures as necessary.
- B. Inspect control structures after each significant rainfall. Promptly repair breaches which occur.
- C. The Contractor shall remove entrapped sediment from behind excelsior drainage filter after each storm.

3.4 DISPOSAL OF SEDIMENT FROM STORM WATER POLLUTION CONTROL STRUCTURES

- A. Sediment excavated from temporary sediment control structures shall be disposed on the site with general fill, or with topsoil. Sediment shall be allowed to dry out as required before reuse.
- B. Contractor shall place the sediment removed from traps and other structures where it will not enter a storm drain or watercourse and where it will not immediately reenter the basin.

3.5 REMOVAL OF TEMPORARY STORM WATER POLLUTION CONTROL MEASURES

- A. All temporary control measures shall be removed with permission of the Owner within 20 working days after final acceptance of the Project or once grading is completed and slopes have stabilized.

END OF SECTION 01 3544

SECTION 01 4000 – QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Administrative and procedural requirements for quality assurance and quality control services.
- B. Testing and Inspection Service: As required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Contractor's quality control.
- D. Progress cleaning.
- E. Pre-construction conferences.
- F. Repair and protection of ongoing construction.

1.3 RELATED SECTIONS

- A. Divisions 2 through 48 Sections for specific test and inspection requirements.

1.4 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

- D. Mockups: Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.
- E. Laboratory Mockups: Full-size, physical assemblies that are constructed at testing facility to verify performance characteristics.
- F. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- G. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- H. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- I. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- J. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
- K. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to Tradespeople of the corresponding generic name.
- L. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction. See specific specification sections for additional experience requirements.

1.5 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement as defined in the General Conditions. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.6 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

1.7 SUBMITTALS

- A. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.
- B. Qualification Data: For entities and agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience.
1. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.8 INSPECTION AND TESTING AGENCY SUBMITTALS

- A. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
1. Specification Section number and title.
 2. Description of test and inspection.
 3. Identification of applicable standards.
 4. Identification of test and inspection methods.
 5. Number of tests and inspections required.
 6. Time schedule or time span for tests and inspections.
 7. Entity responsible for performing tests and inspections.
 8. Requirements for obtaining samples.
 9. Unique characteristics of each quality control service.
- B. Submit a certified written report of each inspection, test or similar service, to the Architect, unless the Contractor is responsible for the service. If the Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
- C. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
1. Date of issue.
 2. Project title and number.
 3. Name, address and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.

5. Names of individuals making the inspection or test.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete inspection or test data.
9. Test and inspection results and an interpretation of test results.
10. Ambient conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and re-inspecting.

1.9 QUALITY ASSURANCE

- A. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- D. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.
- E. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- F. Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.
 1. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State of California.
- G. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E548, and that specializes in types of tests and inspections to be performed.
- H. Provide inspection and testing services as required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance, nor are they intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Documents requirements.

1.10 QUALITY CONTROL SERVICES AND RESPONSIBILITIES

- A. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities.
- B. Owner Responsibilities: Where quality control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- C. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
 - 1. Testing agency will notify Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 2. Testing agency will submit a certified written report of each test, inspection, and similar quality control service to Architect with copy to Contractor and to authorities having jurisdiction.
 - 3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 - 4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 5. Testing agency will retest and re-inspect corrected work.
- D. Contractor Responsibilities: Unless otherwise indicated, provide quality control services specified and required by authorities having jurisdiction.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality control services.
 - 2. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 - 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 4. Where quality control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality control service.
 - 5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- E. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field-curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.

- F. **Manufacturer's Field Services:** Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- G. **Coordination:** Coordinate sequence of activities to accommodate required quality-assurance and quality control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.11 TESTING AND INSPECTION AGENCY SERVICES

- A. Provide inspections, tests and similar quality control services, except where they are specifically indicated to be the Owner's responsibility. Include costs for these services in the Contract Sum.
- B. Where the Owner has engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless otherwise agreed in writing with the Owner.
- C. **Testing Agency Responsibilities:** Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality control service through Contractor.
 - 4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
 - 5. Do not perform any duties of Contractor.
- D. **Retesting/Re-inspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality control services, including retesting and re-inspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
 - 1. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.

1.12 CONTRACTOR'S QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, fabrication, and installation, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise fabrication and installation.
- E. Perform work by persons qualified to fabricate and install materials of specified quality.

- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.13 PRE-CONSTRUCTION CONFERENCES

- A. Convene a pre-construction conference after execution of the Agreement and prior to commencement of construction activities. Review responsibilities and personnel assignments.
- B. Attendees: The Owner, Architect, the Contractor and his superintendent, subcontractors, suppliers, manufacturers, and other concerned parties shall be represented by persons authorized to conclude matters relating to the Work.
- C. Agenda: Discuss significant items that could affect progress, including the tentative construction schedule, critical sequencing, use of the premises, procedures for processing Change Orders and equipment deliveries.
- D. Review progress of other activities and preparations for the activity under consideration at each conference, including time schedules, manufacturers' recommendations, weather limitations, substrate acceptability, compatibility problems and inspection and testing requirements.
- E. Use conferences to assure accurate coordination among trades where appearance of intersecting materials is critical. Follow agendas laid out in individual Sections.
- F. Record significant discussions, agreements and disagreements of each conference, along with the approved schedule. Distribute the meeting record to everyone concerned, promptly, including the Owner and Architect.
- G. Do not proceed if the conference cannot be successfully concluded. Initiate necessary actions to resolve impediments and reconvene the conference at the earliest feasible date.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect.
 - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's and Construction Manager's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
- B. Protect construction exposed by or for quality control service activities, and protect repaired construction.
- C. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
- D. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

3.3 PROGRESS CLEANING

- A. Preconstruction Conference: Conduct a meeting at the site prior to commencement of all construction activities to establish required procedures for maintaining a clean site that meets the Owner's requirements. Conference shall be attended by Contractor, Owner, Architect, and Contractor's superintendent.
 - 1. Review intended progress cleaning procedures and schedule.
 - 2. Establish intervals required by Owner for progress cleaning to take place and meetings to review effectiveness of progress cleaning.
 - 3. Establish the need for identification badges for construction and cleaning personnel.
 - 4. Discuss security procedures required by Owner.
 - 5. Review reporting procedures for any violations of established and agreed upon procedures.
- B. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- C. Site: Maintain Project site free of waste materials and debris.
- D. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- E. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

- F. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- G. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- H. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
 - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- I. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- J. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- K. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- L. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

END OF SECTION 01 4000

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SECTION 01 4100 – REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 REQUIREMENTS AND DESCRIPTION OF THE WORK

- A. This section specifies codes, laws, rules and regulations applicable to the project.
- B. Nothing in these Contract Documents shall be construed to permit work not conforming to the latest edition of the aforementioned codes, laws, rules and regulations.

1.3 CODES, LAWS, RULES AND REGULATIONS

- A. All work shall meet or exceed the applicable requirements of the latest editions of the following codes formally adopted by the City of Hayward, including all adopted amendments, ordinances, and supplements:
 - 1. California Building Code (CBC)
 - 2. California Fire Code (CFC)
 - 3. California Plumbing Code (CPC)
 - 4. California Mechanical Code (CMC)
 - 5. California Electrical Code (CEC)
 - 6. Title 8, California Administrative Code
 - 7. Title 24, California Administrative Code
- B. All applicable federal, state and local laws, and the rules and regulations of governing utility districts and the various other authorities have jurisdiction over the construction and completion of the project, including the latest rules and regulations of the State Fire Marshal, CAL/OSHA and the State Safety Orders, and the California Labor Code, shall apply to the contract throughout, and they shall be deemed to be included in the contract the same as though printed in these Specifications.
- C. Contractor shall furnish, without extra charge, any additional labor and/or materials when required by the compliance with the codes, laws, rules and regulations, though the work is not mentioned in these Specifications or shown on the Drawings.
- D. When Specifications or Drawings call for materials or construction of a higher quality or larger size than required by governing codes, laws, rules and regulations, the provisions of the Specifications or Drawings shall take precedence.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 4100

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SECTION 01 4200 - REFERENCES

PART 1 - GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

AA	Aluminum Association, Inc. (The)
AAADM	American Association of Automatic Door Manufacturers
AABC	Associated Air Balance Council
AAMA	American Architectural Manufacturers Association
AASHTO	American Association of State Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists (The)
ABAA	Air Barrier Association of America
ABMA	American Bearing Manufacturers Association
ACI	ACI International (American Concrete Institute)
ACPA	American Concrete Pipe Association
AEIC	Association of Edison Illuminating Companies, Inc. (The)
AF&PA	American Forest & Paper Association
AGA	American Gas Association
AGC	Associated General Contractors of America (The)
AHA	American Hardboard Association (Now part of CPA)
AHAM	Association of Home Appliance Manufacturers
AI	Asphalt Institute
AIA	American Institute of Architects (The)
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALCA	Associated Landscape Contractors of America (Now PLANET - Professional Landcare Network)
ALSC	American Lumber Standard Committee, Incorporated
AMCA	Air Movement and Control Association International, Inc.
ANSI	American National Standards Institute
AOSA	Association of Official Seed Analysts, Inc.
APA	Architectural Precast Association
APA	APA - The Engineered Wood Association
APA EWS	APA - The Engineered Wood Association; Engineered Wood Systems
API	American Petroleum Institute
ARI	Air-Conditioning & Refrigeration Institute
ARMA	Asphalt Roofing Manufacturers Association
ASCE	American Society of Civil Engineers
ASCE/SEI	American Society of Civil Engineers/Structural Engineering Institute (See ASCE)
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASME	ASME International
ASSE	American Society of Sanitary Engineering
ASTM	ASTM International (American Society for Testing and Materials International)
AWCI	AWCI International (Association of the Wall and Ceiling Industry International)
AWCMA	American Window Covering Manufacturers Association (Now WCSC)
AWI	Architectural Woodwork Institute
AWPA	American Wood-Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers Association

BIA	Brick Industry Association (The)
BICSI	BICSI
BIFMA	BIFMA International (Business and Institutional Furniture Manufacturer's Association International)
BISSC	Baking Industry Sanitation Standards Committee
CCC	Carpet Cushion Council
CDA	Copper Development Association
CEA	Canadian Electricity Association
CFFA	Chemical Fabrics & Film Association, Inc.
CGA	Compressed Gas Association
CIMA	Cellulose Insulation Manufacturers Association
CISCA	Ceilings & Interior Systems Construction Association
CISPI	Cast Iron Soil Pipe Institute
CLFMI	Chain Link Fence Manufacturers Institute
CRRC	Cool Roof Rating Council
CPA	Composite Panel Association
CPPA	Corrugated Polyethylene Pipe Association
CRI	Carpet & Rug Institute (The)
CRSI	Concrete Reinforcing Steel Institute
CSA	Canadian Standards Association
CSA	CSA International (Formerly: IAS - International Approval Services)
CSI	Cast Stone Institute
CSI	Construction Specifications Institute (The)
CSSB	Cedar Shake & Shingle Bureau
CTI	Cooling Technology Institute (Formerly: Cooling Tower Institute)
DHI	Door and Hardware Institute
EIA	Electronic Industries Alliance
EIMA	EIFS Industry Members Association
EJCDC	Engineers Joint Contract Documents Committee
EJMA	Expansion Joint Manufacturers Association, Inc.
ESD	ESD Association
FIBA	Federation Internationale de Basketball (The International Basketball Federation)
FIVB	Federation Internationale de Volleyball (The International Volleyball Federation)
FM Approvals	FM Approvals
FM Global	FM Global (Formerly: FMG - FM Global)
FMRC	Factory Mutual Research (Now FM Global)
FRSA	Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc.
FSA	Fluid Sealing Association
FSC	Forest Stewardship Council
GA	Gypsum Association
GANA	Glass Association of North America
GRI	(Now GSI)
GS	Green Seal
GSI	Geosynthetic Institute
HI	Hydraulic Institute
HI	Hydronics Institute
HMMA	Hollow Metal Manufacturers Association (Part of NAAMM)
HPVA	Hardwood Plywood & Veneer Association
HPW	H. P. White Laboratory, Inc.

IAS	International Approval Services (Now CSA International)
IBF	International Badminton Federation
ICEA	Insulated Cable Engineers Association, Inc.
ICRI	International Concrete Repair Institute, Inc.
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The)
IESNA	Illuminating Engineering Society of North America
IEST	Institute of Environmental Sciences and Technology
IGCC	Insulating Glass Certification Council
IGMA	Insulating Glass Manufacturers Alliance
ILI	Indiana Limestone Institute of America, Inc.
ISO	International Organization for Standardization
ISSFA	International Solid Surface Fabricators Association
ITS	Intertek Testing Service NA
ITU	International Telecommunication Union
KCMA	Kitchen Cabinet Manufacturers Association
LMA	Laminating Materials Association (Now part of CPA)
LPI	Lightning Protection Institute
MBMA	Metal Building Manufacturers Association
MFMA	Maple Flooring Manufacturers Association, Inc.
MFMA	Metal Framing Manufacturers Association, Inc.
MH	Material Handling
MHIA	Material Handling Industry of America
MIA	Marble Institute of America
MPI	Master Painters Institute
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc.
NAAMM	National Association of Architectural Metal Manufacturers
NACE	NACE International (National Association of Corrosion Engineers International)
NADCA	National Air Duct Cleaners Association
NAGWS	National Association for Girls and Women in Sport
NAIMA	North American Insulation Manufacturers Association
NBGQA	National Building Granite Quarries Association, Inc.
NCAA	National Collegiate Athletic Association (The)
NCMA	National Concrete Masonry Association
NCPI	National Clay Pipe Institute
NCTA	National Cable & Telecommunications Association
NEBB	National Environmental Balancing Bureau
NECA	National Electrical Contractors Association
NeLMA	Northeastern Lumber Manufacturers' Association
NEMA	National Electrical Manufacturers Association
NETA	InterNational Electrical Testing Association
NFHS	National Federation of State High School Associations
NFPA	NFPA (National Fire Protection Association)
NFRC	National Fenestration Rating Council
NGA	National Glass Association
NHLA	National Hardwood Lumber Association
NLGA	National Lumber Grades Authority
NOFMA	NOFMA: The Wood Flooring Manufacturers Association (Formerly: National Oak Flooring Manufacturers Association)
NRCA	National Roofing Contractors Association
NRMCA	National Ready Mixed Concrete Association
NSF	NSF International

	(National Sanitation Foundation International)
NSSGA	National Stone, Sand & Gravel Association
NTMA	National Terrazzo & Mosaic Association, Inc. (The)
NTRMA	National Tile Roofing Manufacturers Association (Now TRI)
NWWDA	National Wood Window and Door Association (Now WDMA)
OPL	Omega Point Laboratories, Inc. (Now ITS)
PCI	Precast/Prestressed Concrete Institute
PDCA	Painting & Decorating Contractors of America
PDI	Plumbing & Drainage Institute
PGI	PVC Geomembrane Institute
PLANET	Professional Landcare Network (Formerly: ACLA - Associated Landscape Contractors of America)
PTI	Post-Tensioning Institute
RCSC	Research Council on Structural Connections
RFCI	Resilient Floor Covering Institute
RIS	Redwood Inspection Service
SAE	SAE International
SDI	Steel Deck Institute
SDI	Steel Door Institute
SEFA	Scientific Equipment and Furniture Association
SEI/ASCE	Structural Engineering Institute/American Society of Civil Engineers (See ASCE)
SGCC	Safety Glazing Certification Council
SIA	Security Industry Association
SIGMA	Sealed Insulating Glass Manufacturers Association (Now IGMA)
SJI	Steel Joist Institute
SMA	Screen Manufacturers Association
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SMPTE	Society of Motion Picture and Television Engineers
SPFA	Spray Polyurethane Foam Alliance (Formerly: SPI/SPFD - The Society of the Plastics Industry, Inc.; Spray Polyurethane Foam Division)
SPIB	Southern Pine Inspection Bureau (The)
SPRI	Single Ply Roofing Industry
SSINA	Specialty Steel Industry of North America
SSPC	SSPC: The Society for Protective Coatings
STI	Steel Tank Institute
SWI	Steel Window Institute
SWRI	Sealant, Waterproofing, & Restoration Institute
TCA	Tile Council of America, Inc.
TIA/EIA	Telecommunications Industry Association/Electronic Industries Alliance
TMS	The Masonry Society
TPI	Truss Plate Institute, Inc.
TPI	Turfgrass Producers International
TRI	Tile Roofing Institute
UL	Underwriters Laboratories Inc.
UNI	Uni-Bell PVC Pipe Association
USAV	USA Volleyball
USGBC	U.S. Green Building Council
USITT	United States Institute for Theatre Technology, Inc.
WASTEC	Waste Equipment Technology Association
WCLIB	West Coast Lumber Inspection Bureau

WCMA	Window Covering Manufacturers Association (Now WCSC)
WCSC	Window Covering Safety Council (Formerly: WCMA - Window Covering Manufacturers Association)
WDMA	Window & Door Manufacturers Association (Formerly: NWWDA - National Wood Window and Door Association)
WI	Woodwork Institute (Formerly: WIC - Woodwork Institute of California)
WIC	Woodwork Institute of California (Now WI)
WMMPA	Wood Moulding & Millwork Producers Association
WSRCA	Western States Roofing Contractors Association
WWPA	Western Wood Products Association

- B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

BOCA	BOCA International, Inc. (See ICC)
IAPMO	International Association of Plumbing and Mechanical Officials
ICBO	International Conference of Building Officials (See ICC)
ICBO ES	ICBO Evaluation Service, Inc. (See ICC-ES)
ICC	International Code Council
ICC-ES	ICC Evaluation Service, Inc.
SBCCI	Southern Building Code Congress International, Inc. (See ICC)
UBC	Uniform Building Code (See ICC)

- C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

CE	Army Corps of Engineers
CPSC	Consumer Product Safety Commission
DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FDA	Food and Drug Administration
GSA	General Services Administration
HUD	Department of Housing and Urban Development
LBL	Lawrence Berkeley National Laboratory
NCHRP	National Cooperative Highway Research Program (See TRB)
NIST	National Institute of Standards and Technology
OSHA	Occupational Safety & Health Administration
PBS	Public Building Service (See GSA)
PHS	Office of Public Health and Science
RUS	Rural Utilities Service

	(See USDA)
SD	State Department
TRB	Transportation Research Board
USDA	Department of Agriculture
USPS	Postal Service

- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list.

ADAAG	Americans with Disabilities Act (ADA) Architectural Barriers Act (ABA)
CFR	Code of Federal Regulations
DOD	Department of Defense Military Specifications and Standards
DSCC	Defense Supply Center Columbus (See FS)
FED-STD	Federal Standard (See FS)
FS	Federal Specification
FTMS	Federal Test Method Standard (See FS)
MIL	(See MILSPEC)
MIL-STD	(See MILSPEC)
MILSPEC	Military Specification and Standards
UFAS	Uniform Federal Accessibility Standards

- E. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

CBHF	State of California, Department of Consumer Affairs Bureau of Home Furnishings and Thermal Insulation
CCR	California Code of Regulations
CPUC	California Public Utilities Commission
TFS	Texas Forest Service Forest Resource Development

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 4200

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SECTION 01 4216 – DEFINITIONS**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. Basic Contract definitions are included in the Conditions of the Contract.
- B. Acceptable: Contractor is obligated to provide and install one of the named products. Manufacturers with products having equivalent characteristics may be considered provided deviations are minor and design concept expressed in the Contract Documents is not changed, as judged by the Design Professional. A substitution request is necessary for use of any other manufacturer or products other than what is named.
- C. Approve, Approved: Where used in conjunction with the Architect's action on the Contractor's submittals, applications, and requests, is limited to the Architect's duties and responsibilities as stated in the Conditions of the Contract.
- D. Accepted Equivalent: Where used in conjunction with the Architect's action on the Contractor's submittals and substitution requests, is as stated in the Conditions of the Contract for Architect's responsibilities and duties as the Design Professional.
- E. Basis of Design: Where specified these Specifications shall be interpreted to require the named Basis-of-Design product or acceptable comparable product where additional manufacturers are listed. If no other manufacturers are listed, the Specification shall be interpreted to mean 'no known equal'. Substitutions will be handled and processed in accordance with Section 01 2513 "Product Substitution Procedures".
- F. Directed: Terms such as directed, requested, authorized, selected, approved, required, and permitted mean directed by the Architect, requested by the Architect, and similar phrases.
- G. Experienced: When used with the term Installer, means having a minimum of five previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of the authority having jurisdiction.
- H. Furnish: Means supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- I. Indicated: Refers to graphic representations, notes or schedules on the Drawings, or other Paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as shown, noted, scheduled, and specified are used, it is to help the reader locate the reference.
- J. Install: Describes operations at Project site including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

- K. **Installer:** An Installer is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
- L. **Project Site:** Is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- M. **Provide:** Means to furnish and install, complete and ready for the intended use.
- N. **Regulations:** Includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- O. **Testing Laboratories:** A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.3 INDUSTRY STANDARDS

- A. **Applicability of Standards:** Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. **Publication Dates:** Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. **Copies of Standards:** Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.
- D. **Overlapping and Conflicting Requirements:** Where compliance with 2 or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes 2 different or conflicting minimums or levels of quality, the most stringent requirement (which is generally recognized to be also the most costly is intended and will be enforced, unless specifically detailed language written into the contract documents (not by way of reference to an industry standard) clearly indicates that the less stringent requirement is to be fulfilled.
 - 1. Refer apparently equal-but-different requirements, and uncertainties as to which of 2 levels of quality is the more stringent, to the Owner for a decision before proceeding.
 - 1. **Contractor's Option:** Except for overlapping or conflicting requirements, where more than one set of requirements are specified for a particular unit of work, the option is intended to be the Contractors' regardless of whether specifically indicated as such in the text.

1.4 GOVERNING DICTIONARY

- A. The definitions of the words used in these Specifications, which are not defined in the Section, the General Conditions, or in referenced standards, are as given in "Webster's Third New International Dictionary", The Definitive Merriam-Webster Unabridged Dictionary of the English Language.

1.5 ABBREVIATIONS AND NAMES

- A. Where acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.
- B. Trades; Names: Except as otherwise indicated, the use of trade titles such as "carpentry" in specification text, implies neither that the work must be performed by an accredited or unionized tradesman or the corresponding generic name (such as a carpenter), nor that the specified requirements apply exclusively to work by tradesmen of that corresponding generic name.

1.6 SPECIFICATION FORMAT AND LANGUAGE

- A. These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's 50-Division format and MASTERFORMAT 201 2 numbering system.
- B. Language used in the Specifications and other Contract Documents is abbreviated. Words that are implied, but not stated shall be interpolated as the sense requires. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the context of the Contract Documents so indicates.
- C. Imperative language is used generally. Requirements expressed in the imperative mood are to be performed by the Contractor. The indicative mood is employed on occasion when such sentence structure is necessary to convey the intended meaning in a more accurate or understandable format. (The imperative and indicative moods of sentence structure are defined in CSI's Manual of Practice.)
- D. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
- E. Streamlining: Employs the colon as a symbol for the words "shall be", "shall have", "shall conform with", "shall meet the requirements of", or "shall comply with".
- F. A colon is also used to set off a paragraph title or heading from the text that follows. This is the case when a grammatically complete sentence follows a heading and a colon. It is also used as a punctuation mark in a sentence to direct attention to matter that follows. This is not streamlining.

1.7 INTERPRETATIONS

- A. In order to reduce the length of these Specifications, certain phrases are written without objects and shall be interpreted as described below.

- B. As indicated: Whenever "as indicated" is specified in these Specifications, it shall be understood to read "as indicated on the Drawings".
- C. As required: Whenever "as required" is specified in these Specifications, it shall be understood to read "as required for a complete and finished installation" or "as required for a complete and finished, operable installation".
- D. As specified: Whenever "as specified" is specified in these Specifications, it shall be understood to read "as specified herein" or "as specified in these Specifications".

1.8 STANDARD OF QUALITY

- A. Where one certain kind, type, brand or manufacturer of material is named in these Specifications, it shall be regarded as the required minimum standard of quality. Submit requested substitutions in accordance with Section 01 2513.

1.9 SUBMITTALS

- A. It shall be understood that the various submittals required by the individual specifications sections are to be submitted to the Architect for review and approval as specified in the General Conditions.
- B. Unless "no substitute" is specified, these Specifications shall be interpreted to include the words "or approved equal" after every product specified by manufacturer's brand name or model number. Substitutions will be handled and processed in accordance with Section 01 2513.
- C. Basis of Design: Where specified these Specifications shall be interpreted to require the named Basis-of-Design product or comparable product where additional manufacturers are listed. If no other manufacturers are listed, the Specification shall be interpreted to mean 'no known equal'. Substitutions will be handled and processed in accordance with Section 01 2513.

1.10 PERMITS, LICENSES, AND CERTIFICATES

- A. For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 4216

SECTION 01 4339 – MOCK-UPS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Mock-up requirements.

1.3 RELATED SECTIONS

- A. Section 01 4000 – Quality Requirements: Quality assurance requirements.
- B. Divisions 2 through 35 Sections for specific mock-up requirements.

1.4 DEFINITIONS

- A. Mockups: Full-size, physical example assemblies to illustrate finishes and materials. Mockups are used to verify selections made under Sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Accepted mockups establish the standard by which the Work will be judged.

1.5 PRECONSTRUCTION TESTING

- A. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Contractor responsibilities include the following:
 - a. Provide test mockups representative of proposed products and construction.
 - b. Submit test mockups in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Provide sizes and configurations of test mockups to adequately demonstrate capability of products to comply with performance requirements.
 - d. Build site-assembled test mockups when required in individual specification Sections, using installers who will perform same tasks for Project.
 - e. When testing is complete, remove test mockups; do not reuse products on Project.

1.6 QUALITY ASSURANCE

- A. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect or Construction Manager.
 - 2. Notify Architect, City's Project Manager, and Construction Manager seven days in advance of dates and times when mockups will be constructed.
 - 3. Demonstrate the proposed range of aesthetic effects, fabrication, and installation.

- B. Obtain Architect's, City's Project Manager's, and Construction Manager's approval of mockups before starting work, fabrication, or construction.
- C. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals, and finishes.
- D. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
- E. Demolish and remove mockups when directed, unless otherwise indicated.
- F. Where mock-up is specified in individual Sections to be removed, clear area after mock-up has been accepted by Architect, City's Project Manager, and Construction Manager.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – ~~NOT USED~~

3.1 SITE BUILT, OUT-OF-SEQUENCE, FREE-STANDING EXTERIOR WALL MOCKUP

- A. Provide a site built exterior wall mockup including the following:
 - 1. Purpose: The exterior wall mockup shall be constructed on site and reviewed by the Owner and Architect for the purpose of establishing the acceptable quality of the exterior finish systems and for conducting water infiltration testing by a testing service provided by the Owner.
 - 2. Mockup Scope: The exterior wall mockup shall simulate the exterior finish systems as described on the Drawings and including:
 - a. Concrete panels including embedded items.
 - b. Decorative painted aluminum plate "Portal" frame.
 - c. Complete roofing system.
 - d. Sheet metal flashings, fasciae, and roof drainage systems.
 - e. Associated wall framing, sheathing, waterproofing and weather barriers as well as waterproofing and weather barrier details.
 - f. Aluminum windows.
 - 3. Contractor is responsible for all required supporting structure for construction of mockup.
 - 4. Size: As indicated on Drawings.
 - 5. No work on the represented on the mockup shall proceed prior before approval of that portion of mockup by Architect and Owner.
 - 6. Related Sections:
 - a. Section 01 4000.
 - b. Section 03 1000.
 - c. Section 03 3000.
 - d. Section 03 3500.
 - e. Section 07 4113.
 - f. Section 07 6000.
 - g. Section 08 5113.
 - 7. See Section 01 40 00.

END OF SECTION 01 4339

SECTION 01 4349 – DELEGATED DESIGN**PART 1 - GENERAL**

1.1 SUMMARY

- A. For certain components of the Work of the Contract the Contractor is required to provide professional engineering design and obtain necessary approval of regulatory agencies. The Contractor shall be responsible for the design, calculations, submittals, and permits, for these Delegated Design components. The Contractor is responsible to submit all Delegated Design documents required for approval by regulatory agencies for each Delegated Design item.
- B. Architect's Review of Submittals: For compliance with design intent and shall neither lessen nor shift the responsibility from the Contractor, or their lower tier contractor, to the Owner or the Architect. The Owner shall not be responsible to neither pay for costs nor damages due to failure by the Contractor to coordinate delegated design work with the work of the Project.
- C. Follow the requirements of the Authority Having Jurisdiction over the Work current at the time of submission. The Contractor is responsible to coordinate and submit all material required by the AHJ, so review and processing of submittals and permits will not adversely affect the construction schedule. Each Delegated Design item requiring review by the AHJ must be provided by the Contractor and all fees and costs associated therewith shall be the Contractor's responsibility at no additional cost to the Owner.
- D. Components of the Work to which delegated design requirements apply: As required in individual technical Sections of the specifications.

1.2 DEFINITIONS

- A. Delegated Design Work: Design services and certifications provided by a Professional and or Structural Engineer registered in California related to systems, materials or equipment required for the Work to satisfy design and performance criteria established by the Contract Documents. Delegated Design does not include professional services the Contractor needs to fulfill their responsibilities under the Contract including but not limited to construction means, methods and sequence.
- B. Seal: Certification that delegated design plans, computations and specifications were designed and prepared under the direct supervision of the Architect or Engineer whose name appears thereon.

1.3 DESIGN REQUIREMENTS

- A. As required in individual technical Sections of the specifications.

1.4 SUBMITTALS

- A. Document compliance with design and performance requirements. Provide calculations, details, fabrication and assembly information, and demonstrate coordination with supporting work and other components to be integrated into Delegated Design Assemblies. Submittals required to be prepared under the control of the Delegated Design Engineer shall bear the professional stamped and signature of the responsible design professional.

- B. Submittals not stamped and signed by the Delegated Design Engineer, incomplete submittals, and submittals that have not been reviewed by the Contractor will be rejected.
- C. Delegated Design Summary Sheet: List entities to whom the Contractor has appointed Delegated Design responsibilities and the registered engineers' name and contact information.
- D. Delegated Design Documents: Prepared under the direct supervision and control of the Delegated Design Engineer for the subject work, who shall stamp and sign drawings, calculations and other documentation as required. Provide all documentation necessary for complete and concise documentation for the Delegated Design work. Show all members, dimensions, connections, materials used. Indicate how the component or assembly is attached to the main structure, reactions associated with those connections.
 - 1. Shop drawings and erection drawings are not acceptable as Delegated Design drawings.
- E. Two sets of calculations including criteria, design assumptions, substantiating computations and such additional data sufficient to show the correctness of the documentation and compliance with the applicable codes and regulations.

1.5 DELEGATED DESIGN SCHEDULE

- A. The above performance and design criteria applies to, but not limited to Work of the following:
 - 1. Section 05 5000 – Metal Fabrications
 - 2. Section 05 5113 – Metal Pan Stairs
 - 3. Section 05 5136 – Metal Cat Walks
 - 4. Section 08 4113 – Aluminum-Framed Entrances and Storefronts.
 - 5. Section 08 4413 – Glazed Aluminum Curtain Walls.
 - 6. Section 10 7500 – Flagpoles.
 - 7. Seismic Restraint for Mechanical Equipment
 - 8. Supporting Devices
 - 9. Seismic Restraint for Electrical Equipment

1.6 QUALITY ASSURANCE

- A. Delegated Design Submittals: Approved by Regulatory Authorities and the Architect prior to starting fabrication of the work regardless of whether a building permit has been previously issued.
- B. Where the Contractor is required to provide services of a licensed design professional the Contract Documents will establish design and performance criteria the work must satisfy.
- C. Except for field quality assurance testing specified to be performed by the Owner, provide laboratory and field tests to establish performance characteristics of Delegated Design work at no additional Cost to the Owner.

1.7 CONTRACTOR'S RESPONSIBILITY

- A. Contractor acknowledges that it shall be responsible for the design, method of construction, coordination and integration with other trades to achieve the architectural design intent of the Contract Documents, of those portions of the design-build work including sizing, sequence, placement, details of construction.
- B. Contractor guarantees the following:

1. Design-build work shall be constructed in compliance with building codes and ordinances in effect and shall be fit and proper for its intended use.
 2. Where relevant, design and method of construction of the design-build work shall not incorporate or employ the use of any product, process, or technique which may be protected by common law or statutory patent, copyright or trade secret rights unless Contractor or subcontractor shall be the lawful owner or licensee of same.
- C. Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, and expenses resulting from breach or failure by Contractor to perform fully any of the foregoing obligations and specifically agrees to indemnify and hold Owner harmless from any and all claims of the Contractor's employees, agents, subcontractors, suppliers or third parties and to make good any damages to Work, and attorney's fees and costs of additional work by Owner's Architect resulting from inadequacies of the design, techniques or methods of construction of the design-build Work.
- D. The design and the drawing and specifications for the technique and method of construction of the design-build Work shall be prepared and shall result in work which is fit to perform its intended use.
- E. Provide design-build plans, specifications, and calculations that are prepared, stamped and signed by qualified, registered, licensed engineers authorized to practice their professions under the laws of the State of California. The plans, specifications, and calculations shall be acceptable to the Architect and the Division of the State Architect (DSA).
- F. Contractor's construction schedule shall allow for Division of State Architect's (DSA) review and approval time. No schedule delay claims shall be allowed due to DSA review and approval process.
- G. Prior to commencement of the design-build Work at the Project Site, Contractor shall provide the Owner with copies of the current insurance policies covering errors and omissions of persons designing the design-build work with maximum deductibles and limits per occurrence as mutually agreed by the Owner and Contractor, together with an endorsement providing for 30 days' notice to Owner prior to cancellation or material reduction in coverage.
- 1.8 COORDINATION WITH ARCHITECTURAL DESIGN INTENT
- A. General: Provide coordination drawings prior to commencement of the Work. Any work begun before approved by the Architect, and found to be non-compliant with the architectural design intent, shall be replaced by the Contractor at no additional cost to the Owner.
- B. Ceilings:
1. Coordinate the work of all trades involved to ensure clearances for fixtures, ducts, piping, ceiling suspension systems and other above-ceiling work as necessary to maintain finished ceiling heights.
 2. Paint all exposed items at ceilings. Paint air grilles to match adjacent ceiling finish.
 3. Locate light fixtures, sprinkler heads, and diffuser grilles in the center of the ceiling panels.
- C. Areas Where Structure Is Exposed:
1. Install sprinkler lines, ductwork, conduit, plumbing, and process piping, lighting, and all other overhead items at regular intervals, parallel to and/or perpendicular with building column grid lines.

2. Align all hangers, wires, braces, struts, chains, junction boxes, etc., in any given line aligned with one another, and install in the same fashion, for a neat and uniform appearance.
- D. Review exposed layouts with Architect's and other trades in the field prior to commencing work. Layouts which have not been reviewed will be subject to change at no additional expense to the Owner, if found unsatisfactory. Areas subject to review include but are not necessarily limited to exposed structure areas.
- E. Do not locate sprinkler lines, ductwork, conduit access panels, cleanouts, plumbing, process piping, and emergency lighting (including speakers and strobes) in and/or through special feature areas and finishes, including walls and ceilings, except as otherwise specifically indicated on the Drawings.
1. Engineering design and construction shall be by alternative route and not necessarily direct route method.
 2. Special feature areas include:
 - a. Reception, Foyer, and Lobby areas.
 - b. Special finish areas include walls, ceilings, and floors finished with wood, metal, stone.
- F. Building construction Type is indicated on the Project Data Drawing. Designated areas shall be constructed of fire resistive construction and design-build work shall incorporate this requirement into their design.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 4349

SECTION 01 4523 – TESTING AND INSPECTING SERVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Testing and Inspection Service: As required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 RELATED SECTIONS

- A. Divisions 2 through 48 Sections for specific test and inspection requirements.

1.4 DEFINITIONS

- A. Quality Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Architect.
- B. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.5 INSPECTION AND TESTING AGENCY SUBMITTALS

- A. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Description of test and inspection.
 - 3. Identification of applicable standards.
 - 4. Identification of test and inspection methods.
 - 5. Number of tests and inspections required.
 - 6. Time schedule or time span for tests and inspections.
 - 7. Entity responsible for performing tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality control service.

- B. Submit a certified written report of each inspection, test or similar service, to the Architect, in triplicate, unless the Contractor is responsible for the service. If the Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
 - 1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.

- C. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making the inspection or test.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete inspection or test data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Ambient conditions at time of sample taking and testing and inspecting.
 - 11. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on retesting and re-inspecting.

1.6 QUALITY ASSURANCE

- A. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.

- B. Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.
 - 1. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State of California.

- C. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E548, and that specializes in types of tests and inspections to be performed.

- D. Provide inspection and testing services as required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance, nor are they intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Documents requirements.

1.7 QUALITY CONTROL SERVICES AND RESPONSIBILITIES

- A. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities.

- B. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
1. Testing agency will notify Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 2. Testing agency will submit a certified written report of each test, inspection, and similar quality control service to Architect with copy to Contractor and to authorities having jurisdiction.
 3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 5. Testing agency will retest and re-inspect corrected work.
- C. Contractor Responsibilities: Unless otherwise indicated, provide quality control services specified and required by authorities having jurisdiction.
1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality control services.
 2. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 4. Where quality control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality control service.
 5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- D. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field-curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- E. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- F. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.8 TESTING AND INSPECTION AGENCY SERVICES

- A. Provide inspections, tests and similar quality control services, except where they are specifically indicated to be the Owner's responsibility. Include costs for these services in the Contract Sum.
- B. Where the Owner has engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless otherwise agreed in writing with the Owner.
- C. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality control service through Contractor.
 - 4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
 - 5. Do not perform any duties of Contractor.
- D. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality control services, including retesting and re-inspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
 - 1. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 4523

SECTION 01 5000 – TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Temporary services and facilities, including utilities.
- B. Construction and support facilities.
- C. Security and protection.

1.3 RELATED SECTIONS

- A. Section 01 3300 – Submittal Procedures: Procedures for submitting copies of implementation and termination schedule and utility reports.
- B. Section 32 1200 – Flexible Paving: Construction and maintenance of asphalt paving for temporary roads and paved areas.
- C. See Divisions 02 through 49 Sections for temporary heat, ventilation, and humidity requirements for products in those Sections.

1.4 USE CHARGES

- A. General: Cost or use charges for temporary facilities are not chargeable to Owner, Construction Manager or Architect and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:
 - 1. Owner's construction forces and vendors.
 - 2. Occupants of Project.
 - 3. Construction Manager
 - 4. Project Inspector
 - 5. Architect.
 - 6. Testing agencies.
 - 7. Personnel of authorities having jurisdiction.
- B. Sewer Service: Pay sewer service use charges for sewer usage, by all parties engaged in construction, at Project site.
- C. Water Service: Water from Owner's existing water system is available for use by Contractor with metering and payment of use charges by the Contractor to the City. Contractor is responsible for coordination of this activity with the City of Hayward Public Works Department. Contractor shall review available sources of water prior to providing a bid for this project (i.e., fire hydrant).
- D. Electric Power Service: Owner's existing electrical system has been disconnected and removed and is not available for use. Contractor to provide connections and extensions of

services as required for construction operations and to power the office trailers. Contractor will be responsible to coordinate and make arrangements with PG&E to provide temporary power to the construction site. Contractor will be responsible for all costs associated with the installation of temporary power and any and all use charges for the duration of the contract.

- E. Temporary Fencing: Contractor to provide and maintain screened temporary fencing at the perimeter of the project site (and elsewhere as required) with adequate protection provide to pedestrians and the public outside of the project site. If there is any exposure to falling objects outside of the project site then the Contractor must provide a covered walkway. Temporary fencing to be revised as necessary to accommodate any project phasing.

1.5 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.6 GENERAL

- A. Provide facilities ready for use. Maintain, expand and modify as needed. Remove when no longer needed, or replaced by permanent facilities.

1.7 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel, Owner, Project Inspector and Construction Managers.
- B. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire prevention program.

1.8 REGULATIONS

- A. Comply with OSHA and applicable laws and regulations.

1.9 QUALITY ASSURANCE

- A. Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities".
- B. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared by AGC and ASC.
- C. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- D. Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

- E. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.10 SITE CONDITIONS

- A. Temporary Utilities: At earliest feasible time, when acceptable to Owner, change over from use of temporary service to use of permanent service.
 - 1. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:
 - 1. Keep temporary services and facilities clean and neat.
 - 2. Relocate temporary services and facilities as required by progress of the Work.
 - 3. Operate in a safe and efficient manner. Take necessary fire prevention measures.
 - 4. Do not overload, or permit facilities to interfere with progress.
 - 5. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Architect. Provide materials suitable for use intended.
- B. Pavement: Comply with local industry standards and Section 32 1200 for temporary and permanent paving.
- C. Temporary Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.76-mm-) thick, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top rails.
 - 1. Fencing to be provided equipped for entrance of utility trucks (16-foot gates) and man gates for easy access. Galvanized Steel posts will be required to be driven into the ground for support and stability. **It is extremely important that the Contractor make sure the fencing is secure at ALL TIMES to prevent access to the airfield.**

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Field Offices: Provide and maintain for the duration of the Work a temporary office on site for use by the Contractor and a separate onsite trailer for use by the Owner, Construction Manager, Project Inspector and the Architect.
 - 1. Owner's Representative. This office shall be a self-contained construction trailer, minimum size 12' X 60', and shall be set up with an office at each end, an area for plans and an area for meetings/conferences. Each office will include a desk (minimum size of 30" X 60"), a rolling office chair (chosen by the CM and Project Inspector) and two (2) guest chairs. The conference area furnishings will include

another desk and office chair, a table of sufficient size to accommodate a minimum of twelve people, 16 folding chairs, a plan table, shelves for binders, three (3) lockable 4 drawer filing cabinets. The conference area shall also include two trashcans, water cooler (with bottled water service for entirety of project), fire extinguisher, smoke detector, and a complete set of unmarked Contract Documents for the Owner's Representative's use.

2. Office shall be ADA-accessible (including required access ramps).
 3. The office shall also be equipped with a scanner/copier/printer with feeder tray and a dedicated data line (also with wireless option) that print sizes up to 11x17 with outside maintenance service plan, printer copier speed to be confirmed with construction manager.
 4. Two (2) dedicated parking spaces will be provided for use by the Construction Manager's staff and one (1) dedicated space for the Project Inspector.
 5. Offices shall be provided with a door and lock with security bar and a window with a minimum size of 4 feet x 3 feet and security screen. Provide and maintain an electric heater and air conditioning along with adequate electric lighting for each office.
 6. Provide portable water services.
 7. Provide microwave and refrigerator for trailer staff.
- C. Office Supplies: The Contractor shall initially supply the field office of the Owner's Representative with (2) cases of 8-1/2 x 11 paper, (1) case of 11 x 17 paper, (1) box post-it notes, (1) box white-out tape, (1) stapler with staples, (1) box assorted binder clips, (1) box paperclips, (1) box of pens, (1) box of pencils, Printer/Copier Toner or Ink, (2) surge protectors, (1) 24' extension cord, . Supplies shall be restocked monthly on an as-needed basis.
- D. Network Setup: The network shall have the following requirements:
1. The internet connection shall have at a minimum a 20-Meg upload / 20-Meg download speed. This should be accomplished via a hard-wired connection.
 - a. Wired network connections must be provided at
 - 1) The Offices, Planroom/Conference Room, and the Printer/Scanner.
 - b. Reasonable access to power for the equipment must be provided.
 - c. Offices shall also be equipped with secure wireless internet capabilities to allow for onsite uses access to email and the internet.
 2. If it is necessary to "piggyback" off of an existing hard-wired line, the line provided to the Owner's Representative shall be an unfiltered line, with no limitations set by the main line holder, such as access restrictions or DNS port blocking.
 3. In the cases where a hard-wired connection is not available, the wireless connection provided must meet the same speed needs of 20-Meg upload / 20-Meg download. It shall also be of sufficient bandwidth to meet the needs of the staff.
 4. In the case of sites where the internet speeds do not meet the above requirements, a local storage device must be provided for the location to save the project data. The local storage device will be connected to the Kitchell network, and backed up during non-business hours to the Kitchell network server.

2.3 EQUIPMENT

- A. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.
1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 2. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction and clean HVAC system as required in Section 01 7700 "Closeout Procedures."
- C. Self-Contained Toilet Units: Single-occupant units of chemical, aerated recirculation, or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material. Contractor to provide ADA-accessible units if and as required.
- D. Drinking-Water Fixtures: Containerized, tap-dispenser, bottled-water drinking-water units, including paper cup supply.
1. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45 to 55 deg F (7.2 to 12.7 deg C).

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- C. Ensure that supervisory personnel are present when work begins and during its progress.
- D. Prohibit smoking by personnel performing work on or near project site.

3.3 TEMPORARY UTILITY INSTALLATION

- A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where utility company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.
1. Arrange with utility company and Owner, for time when service can be interrupted, if necessary, to make connections for temporary services.

2. Provide adequate capacity at each stage of construction. Before temporary utility is available, provide trucked-in services.
 3. Obtain easements to bring temporary utilities to Project site where Owner's easements cannot be used for that purpose.
- B. Where connections are made to existing services, provide separate metering and reimburse Owner for cost of utilities used.
- C. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
 2. If sewers are not available or cannot be used, provide drainage ditches, dry wells, stabilization ponds, and similar facilities.
 3. If neither sewers nor drainage facilities can be lawfully used for discharge of effluent, provide containers to remove and dispose of effluent off-site in a lawful manner.
- D. Existing Drains: Prior to the start of work or any cleaning operations, test drains and other water removal systems to ensure that drains and systems are functioning properly. Notify Owner immediately of drains or systems that are stopped or blocked. Do not begin Work of this Section until the drains are in working order.
1. Provide a method to prevent solids including stone or mortar residue from entering the drains or drain lines. Clean out drains and drain lines that become blocked or filled by sand or any other solids because of work performed under this Contract.
 2. Protect storm drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.
- 3.4 TEMPORARY WATER SERVICE
- A. Arrange with utility service company and Owner, provide and maintain suitable quality water service required for construction operations.
- B. Install water service and distribution piping of sizes and pressures adequate for construction where existing service is not adequate or not available. Sterilize water piping prior to use.
- C. Locate outlets with threaded connections so that water is available through hoses. Provide 3/4" heavy-duty, rubber hoses 100 ft. long with shut-off nozzle at each outlet.
- D. Pay all costs for installation, maintenance and removal, and service charges for water used.
- 3.5 TEMPORARY SANITARY FACILITIES
- A. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
1. Disposable Supplies: Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Maintain adequate supply. Provide covered waste containers for disposal of used material.
 2. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Contractor to provide ADA-accessible units if and as required.
 3. Drinking-Water Facilities: Provide bottled-water, drinking-water units.
 - a. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45 to 55 deg F (7.2 to 12.7 deg C).
 4. Toilets: Use of newly installed toilet facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

3.6 VENTILATION AND HUMIDITY CONTROL

- A. Provide temporary heat for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity.
- B. Select equipment that will not have a harmful effect on completed installations; heating units shall have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel used.
- C. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.
- D. Coordinate ventilation requirements to produce the ambient condition required and minimize energy consumption.
- E. Heating Facilities: Provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control. Use of gasoline-burning space heaters, open flame, or salamander type units is prohibited.

3.7 TEMPORARY ELECTRIC POWER SERVICE

- A. Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics where existing service is not adequate or not available. Include meters, transformers, overload protected disconnects, automatic ground-fault interrupters and main distribution switch gear. Install service underground.
 - 1. Install temporary electric power service overhead unless otherwise indicated.
 - 2. Connect temporary service to local available power supply as defined by the local power provider.
- B. Power Distribution System: Install wiring overhead, and raise vertically where least exposed to damage.

3.8 TEMPORARY LIGHTING

- A. Provide temporary lighting with local switching to fulfill security requirements and provide illumination for construction operations and traffic conditions. Lighting shall achieve a minimum lighting level of 2 watt/sq ft.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Install exterior-yard site lighting that will provide adequate illumination for construction operations, traffic conditions, and signage visibility when the Work is being performed.
- B. Lamps and Light Fixtures: Provide general service incandescent lamps in guard cages where exposed to breakage. Provide exterior fixtures where exposed to moisture.

3.9 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible according to ASTM E136. Comply with NFPA 241.
 - 2. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

- B. Locate field offices, storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access and in an area that does not interfere with ongoing construction activities. Field office and sanitary facilities are to be ADA-accessible if and as required.
- C. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- D. Storage and Fabrication Sheds: Install sheds, equipped to accommodate materials and equipment involved. Sheds may be open shelters or fully enclosed spaces within the Project Site.
- E. Construct and maintain temporary roads and paved areas adequate to support loads and to withstand exposure to traffic during construction period. Locate temporary roads and paved areas in same location as permanent roads and paved areas. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
 - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Division 31.
 - 3. Recondition base after temporary use, including removing contaminated material, regrading, proof-rolling, compacting, and testing.
 - 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course.
- F. Temporary Use of Planned Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
- G. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- H. Parking: Contractor is to provide temporary parking for construction personnel within confines of the designated construction site. If parking within the designated construction site becomes unavailable due to number of Trades, Subcontractors and Vendors, Contractor shall be responsible for coordinating with the City of Hayward for parking requirements, locations, permits, shuttle services, etc.
- I. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- J. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
 - 1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 - 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 - 3. Maintain and touch up signs so they are legible at all times.

- K. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 01 7300 "Execution Requirements:" as well as the rest of the Contract Documents.
- L. Temporary Elevator Use: Obtain permission for use of elevators from City's Project Manager. Provide complete protection of installed elevators allowed to be used for construction activities.
- M. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished, permanent stairs with protective covering of plywood or similar material so finishes will be undamaged at time of acceptance.

3.10 TEMPORARY ENCLOSURES

- A. Construction for Dust Control: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces; maximum Flame Spread Rating of 75 in accordance with ASTM E84.
- B. Site Enclosure Fence: Before construction operations begin, install enclosure fence with lockable entrance gates. Locate where indicated, or enclose entire Project site or portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering site except by entrance gates.
 - 1. Set fence posts in concrete bases.
 - 2. Provide gates in sizes and at locations necessary to accommodate delivery vehicles and other construction operations.
 - 3. Maintain security by limiting number of keys and restricting distribution to authorized personnel.
- C. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, provide insulated temporary enclosures. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
 - 2. Vertical Openings: Close openings of 25 sq. ft. (2.3 sq. m) or less with plywood or similar materials.
 - 3. Horizontal Openings: Close openings in floor or roof decks and horizontal surfaces with load-bearing, wood-framed construction.
 - 4. Install tarpaulins securely using fire-retardant-treated wood framing and other materials.
- D. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
 - 1. Construct dustproof, floor-to-ceiling partitions of not less than nominal 4-inch (100-mm) studs, 2 layers of 3-mil (0.07-mm) polyethylene sheets, inside and outside temporary enclosure. Cover floor with 2 layers of 3-mil (0.07-mm) polyethylene sheets, extending sheets 18 inches (460 mm) up the side walls. Overlap and tape full length of joints. Cover floor with 3/4-inch (19-mm) fire-retardant plywood.
- E. Protect persons, motor vehicles, surrounding surfaces of building being spray-finished, building site, plants, and surrounding buildings from harm or damage resulting from applications of exterior finishes.

- F. Do not apply finishes to surfaces during winds of sufficient force to spread finishes to unprotected surfaces of adjacent existing construction.

3.11 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Tree and Plant Protection: Comply with requirements specified in Section 01_5639 "Temporary Tree and Plant Protection."
 - 1. Protect landscape work adjacent to or within work areas as follows:
 - a. Provide barriers to protect tree trunks.
 - b. Bind spreading shrubs.
 - c. Use coverings that allow plants to breathe and remove coverings at the end of each day. Do not cover plant material with a waterproof membrane for more than 8 hours at a time.
 - d. Set scaffolding and ladder legs away from plants.
- B. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting. **Contractor to comply with all related FAA requirements.**
- D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

3.12 BULLETIN BOARD

- A. Provide a weatherproof bulletin board, at least 36" wide by 30" high, adjacent to or mounted on the Contractor's project office. If adjacent to the office, the bulletin board must be securely mounted on not less than two posts. Both bulletin board and posts must be painted or have approved factory finish. The bulletin board must be easily accessible at all times and must contain wage rates, equal opportunity notice, and other items required to be posted.
- B. Maintain bulletin board in good condition throughout the life of the Project. The bulletin board must remain the property of the Contractor and upon completion of the project must be removed from the site.

3.13 TEMPORARY FIRE PROTECTION

- A. Except for use of permanent fire protection as soon as available, do not change from use of temporary security and protection facilities to permanent facilities until Substantial Completion.
- B. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.

1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Provide fire extinguishers, installed on walls on mounting brackets, visible and accessible from space being served, with sign mounted above.
 - a. Field Offices: Class A stored-pressure water-type extinguishers.
 - b. Other Locations: Class ABC dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for exposures.
 - c. Locate fire extinguishers where convenient and effective for their intended purpose; provide not less than one extinguisher on each floor at or near each usable stairwell.
- C. Develop and supervise an overall fire-prevention and first-aid fire-protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
- D. Provide temporary standpipes and hoses for fire protection. Provide hoses for fire protection of sufficient length to reach construction areas. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.
- E. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
- F. Store combustible materials in containers in fire-safe locations.
- G. Permanent Fire Protection: At earliest feasible date in each area of Project, complete installation of permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.

3.14 PROTECTION OF TEMPORARY FACILITIES

- A. Project Identification and Temporary Signs: Prepare Project identification and other signs in sizes indicated. Install signs where indicated to inform public and persons seeking entrance to Project. Do not permit installation of unauthorized signs.
1. Engage an experienced sign painter to apply graphics for Project identification signs. Comply with details indicated.
 2. Prepare temporary signs to provide directional information to construction personnel and visitors.
 3. Construct signs of exterior-type Grade B-B high-density concrete form overlay plywood in sizes and thicknesses indicated. Support on posts or framing of preservative-treated wood or steel.
 4. Paint sign panel and applied graphics with exterior-grade alkyd gloss enamel over exterior primer.

3.15 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.
1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.

2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
 3. Indicate methods to be used to avoid trapping water in finished work.
- B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
1. Protect porous materials from water damage.
 2. Protect stored and installed material from flowing or standing water.
 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 4. Remove standing water from decks.
 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 2. Keep interior spaces reasonably clean and protected from water damage.
 3. Periodically collect and remove waste containing cellulose or other organic matter.
 4. Discard or replace water-damaged material.
 5. Do not install material that is wet.
 6. Discard and replace stored or installed material that begins to grow mold.
 7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.
- D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
 3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
 - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for [48] hours are considered defective and require replacing.
 - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for [48] hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
 - c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within [48] hours.
- 3.16 PROGRESS CLEANING
- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
 - B. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
 - C. Remove waste materials, debris, and rubbish from site weekly and dispose off-site.

3.17 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
 - 2. Maintain markers for underground pipelines. Protect from damage during excavation operations.
- C. Temporary Facility Changeover: Except for using permanent fire protection as soon as available, do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are the property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
 - 3. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Section 01 7700.

3.18 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
- C. Provide protective coverings at walls, projections, jambs, and sills of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon polyaspartic flooring surfaces until recommended by manufacturer. If traffic or activity is necessary, obtain recommendations for protection from manufacturer.
- F. Where finished openings or surfaces are damaged due to lack of adequate protection, repair and refinish damaged openings or surfaces at no additional cost to Owner.

- G. At Substantial Completion, renovate permanent facilities used during the construction period, including but not limited to:
1. Replace air filters and clean inside of ductwork and housings.
 2. Replace worn parts and parts subject to unusual operating conditions.
 3. Replace burned out lamps.

END OF SECTION 01 5000

SECTION 01 5526 – TRAFFIC CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Section covers requirements for traffic control during construction of the Project.
 - 1. Submittals
 - 2. Signs, Signals, and Devices.
 - 3. Construction parking control.
 - 4. Flagmen.
 - 5. Flares and lights.
 - 6. Haul routes.
 - 7. Traffic signs and signals.
 - 8. Removal.

1.3 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. Caltrans, Standard Specifications & Plans, Current Edition.
 - 2. AASHTO Guide for the Design of Bicycle Facilities, Current Edition.
 - 3. AASHTO Roadside Design Guide, Current Edition.
 - 4. Federal Highway Administration. Standard Highway Signs.
 - 5. U.S. Department of Transportation, Federal Highway Administration (USDOT):
 - 6. Manual of Uniform Traffic Control Devices (MUTCD).
 - 7. American Traffic Safety Services Association (ATSSA)

1.4 RELATED SECTIONS

- A. Section 01 1100 - Summary of Work.
- B. Section 01 3100 – Project Management and Coordination: Project coordination.
- C. Section 01 5000 - Temporary Facilities and Controls: Barriers, enclosures, access roads, and parking areas.

1.5 SUBMITTALS

- A. Traffic Control Plan developed by the Contractor
 - 1. Submit the Traffic Control Plan a minimum of 35 days before the start of needed traffic control to allow review and resubmittal, if necessary and for public notification.
 - 2. Do not begin traffic control before receiving written approval.

1.6 SIGNS, SIGNALS, AND DEVICES

- A. Traffic Control Signals: As approved by local jurisdictions.
- B. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdictions.

- C. Flagman Equipment: As approved by local jurisdictions.

1.7 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and Owner's operations.
- B. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas.

1.8 FLAGGER

- A. Provide trained and equipped flagmen to regulate traffic when construction operations or traffic encroach on public traffic lanes.

1.9 FLARES AND LIGHTS

- A. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

1.10 HAUL ROUTES

- A. Consult with authority having jurisdiction in establishing public thoroughfares to be used for haul routes and site access.
- B. Confine construction traffic to designated haul routes.
- C. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.

1.11 TRAFFIC SIGNS AND SIGNALS

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
- B. Install and operate traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by Contractor's operations.
- C. Relocate as Work progresses, to maintain effective traffic control.

1.12 REMOVAL

- A. Remove equipment and devices when no longer required.
- B. Repair damage caused by installation.
- C. Remove post settings to a depth of 2-feet (600 mm).

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 VEHICULAR TRAFFIC

A. CONTRACTOR shall:

1. Conform to the MUTCD or applicable requirements of authority having jurisdiction and the approved Traffic Control Plan.
2. Allow emergency vehicles immediate passage.
3. Recognize that City requirements take precedence over the MUTCD. Operations on or about traffic areas and provisions for regulating traffic shall additionally be subject to the regulation of other governmental agencies having jurisdiction over the affected areas.
4. Keep traffic areas free of excavated material, construction equipment, pipe, and other materials and equipment.
5. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
6. Conduct operations in a manner to avoid unnecessary interference with public and private roads and drives and provide and maintain temporary access for businesses and residences. Provide and maintain suitable and safe detours, or other temporary expedients for accommodation of public and private travel. When access to private driveways must be temporarily denied due to construction operations, notify the property owner or responsible party of such closure not less than 24 hours in advance of closure. Give notification in writing and include the estimated duration of the closure.
7. Minimum lane width shall be 10 feet, unless noted otherwise. Where cones are used to separate traffic lane from construction zone, do not use traffic lane for accessing construction zone, and do not store materials or equipment on or near shoulder of traffic lane side of roadway.
8. In making street crossings, do not block more than one-half the street at a time. Maintain one lane of traffic at all times. Ensure access for traffic in both directions.
9. Pedestrian and bicycle access along sidewalks and streets will be kept open and safe from construction activities and traffic lanes.

B. FLAGGERS shall:

1. May be required to provide for public safety or the regulation of traffic, or by jurisdictional authorities; and if used, shall be properly equipped and certified by ATSSA.

3.2 PROTECTION OF WORK AND PROPERTY

A. Warning Signs and Barricades:

1. Provide warning signs and barricades for the following:
 - a. Open trenches and other excavations.
 - b. Obstructions, such as material piles and equipment (moving or parked).
 - c. Protection of roads and driveways.
2. Warning signs and barricades shall be illuminated by means of warning lights from sunset to sunrise.

3.3 PARKING

- #### **A. CONTRACTOR, with the approval of OWNER, shall designate parking areas for the use of all construction workers and others performing WORK or furnishing services in connection**

with the PROJECT so as avoid interference with public traffic, OWNER's operations, or construction activities.

3.4 ROADWAY USAGE BETWEEN OPERATIONS

- A. At all times when WORK is not actually in progress, CONTRACTOR shall make passable and shall open to traffic such portions of the PROJECT and temporary roadways or portions thereof as may be agreed upon between CONTRACTOR and OWNER and all authorities having jurisdiction over any properties involved.

END OF SECTION 01 5526

SECTION 01 5639 - TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.

1.2 DEFINITIONS

- A. Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by a circle concentric with each tree with a radius 1.5 times the diameter of the drip line unless otherwise indicated.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Tree Pruning Schedule: Written schedule detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.
- C. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.
- D. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.
- E. Existing Conditions: Documentation of existing trees and plantings indicated to remain, which establishes preconstruction conditions that might be misconstrued as damage caused by construction activities.

1.4 QUALITY ASSURANCE

- A. Arborist Qualifications: Certified Arborist as certified by ISA, licensed arborist in jurisdiction where Project is located, current member of ASCA, or registered Consulting Arborist as designated by ASCA.
- B. Pre-installation Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

- A. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

- B. Do not direct vehicle or equipment exhaust toward protection zones.
- C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Topsoil: Natural or cultivated top layer of the soil profile or manufactured topsoil; containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 1 inch in diameter; and free of weeds, roots, and toxic and other nonsoil materials.
- B. Topsoil: Stockpiled topsoil from location shown on Drawings.
- C. Organic Mulch: Ground or shredded bark, free from deleterious materials.
- D. Protection-Zone Fencing: Fencing fixed in position and meeting one of the following requirements. Previously used materials may be used only when approved by Architect.
 - 1. Chain-Link Protection-Zone Fencing: Galvanized-steel fencing fabricated from minimum 2-inch opening, 0.148-inch- diameter wire chain-link fabric; with pipe posts, minimum 2-3/8-inch- OD line posts, and 2-7/8-inch- OD corner and pull posts; with 1-5/8-inch- OD top rails and 0.177-inch- diameter bottom tension wire; with tie wires, hog ring ties, and other accessories for a complete fence system.
 - 2. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with 2-inch maximum opening in pattern and supported by tubular or T-shape galvanized-steel posts spaced not more than 8 feet apart. High-visibility orange color, nonfading.
 - 3. Height of Fencing: 8 feet.
 - 4. Gates: Swing access gates matching material and appearance of fencing, to allow for maintenance activities within protection zones.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- B. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.
- C. Protection Zones: Mulch areas inside protection zones and other areas indicated with 3-inch average thickness of organic mulch. Do not place mulch within 6 inches of tree trunks.

3.2 PROTECTION ZONES

- A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones in a manner that will prevent people from easily entering protected area except by entrance gates.
 - 1. Chain-Link Fencing: Install to comply with ASTM F 567 and with manufacturer's written instructions.
 - 2. Posts: Set or drive posts into ground one-third the total height of the fence without concrete footings. Where a post is located on existing paving or concrete to remain, provide appropriate means of post support acceptable to Architect.
 - 3. Access Gates: Install where indicated.
- B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Architect.
- C. Maintain protection-zone fencing and signage in good condition as acceptable to Architect and remove when construction operations are complete and equipment has been removed from the site.

3.3 EXCAVATION

- A. General: Excavate at edge of protection zones and for trenches indicated within protection zones according to requirements in Division 31 "~~Earth Moving~~".
- B. Trenching near Trees: Where utility trenches are required within protection zones, hand excavate under or around tree roots or tunnel under the roots by drilling, auger boring, or pipe jacking. Do not cut main lateral tree roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning.
- C. Do not allow exposed roots to dry out before placing permanent backfill.

3.4 ROOT PRUNING

- A. Prune roots that are affected by temporary and permanent construction. Prune roots as follows:
 - 1. Prune tree roots under the observation of a qualified arborist.
 - 2. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
 - 3. Temporarily support and protect roots from damage until they are permanently covered with soil.
 - 4. Cover exposed roots with burlap and water regularly.
 - 5. Backfill as soon as possible according to requirements in Division 31 "~~Earth Moving~~".
- B. Root Pruning at Edge of Protection Zone: Prune roots by cleanly cutting all roots to the depth of the required excavation.
- C. Root Pruning within Protection Zone: Clear and excavate by hand to the depth of the required excavation to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.

3.5 CROWN PRUNING

- A. Prune branches that are affected by temporary and permanent construction. Prune branches as follows:

1. Prune trees to remain to compensate for root loss caused by damaging or cutting root system. Provide subsequent maintenance during Contract period as recommended by arborist.
2. Pruning Standards: Prune trees according to ANSI A300 (Part 1) and the following:
3. Cut branches with sharp pruning instruments; do not break or chop.
4. Do not apply pruning paint to wounds.
5. Prune crowns of trees to remain under the observation of a qualified arborist.

- B. Chip removed branches and dispose of off-site.

3.6 REGRADING

- A. Lowering Grade: Where new finish grade is indicated below existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- B. Raising Grade: Where new finish grade is indicated above existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- C. Minor Fill within Protection Zone: Where existing grade is 2 inches or less below elevation of finish grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.

3.7 FIELD QUALITY CONTROL

- A. Inspections: Engage a qualified arborist to direct plant-protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain and to prepare inspection reports.

3.8 REPAIR AND REPLACEMENT

- A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Architect.
1. Have arborist perform the root cutting, branch pruning, and damage repair of trees and shrubs.
 2. Treat damaged trunks, limbs, and roots according to arborist's written instructions.
 3. Perform repairs within 24 hours.
 4. Replace vegetation that cannot be repaired and restored to full-growth status, as determined by Architect.

3.9 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove excess excavated material, displaced trees, trash and debris, and legally dispose of them off Owner's property.

END OF SECTION 01 5639

SECTION 01 6000 – PRODUCT REQUIREMENTS**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. This Section describes basic requirements governing material and equipment including but not limited to:
- ~~1. Products.~~
 - ~~2. Substitutions.~~
 - 3.1. Fabrication and installation.
 - 4.2. Manufacturers' instructions.
 - 5.3. Product delivery, storage, handling, and protection.

1.3 RELATED REQUIREMENTS

- A. Section 01 2513 – Product Substitution Procedures.
- A.B. Section 01 3300 – Submittal Procedures.
- B.C. Section 01 77 00 "Closeout Procedures" for submitting warranties for Contract closeout.
- C.D. Divisions 02 through 49 Sections for specific requirements for warranties on products and installations specified to be warranted.
- D.E. See Divisions 02 through 49 Sections for specific requirements for LEED.

~~1.4 DEFINITIONS~~

- ~~A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.~~
- ~~1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.~~
 - ~~2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.~~
 - ~~3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.~~
- ~~B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.~~

~~C. Basis of Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.~~

4.51.4 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
 2. Completed List: Within 60 days after date of commencement of the Work, submit 3 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 3. Architect's Action: Architect will respond in writing to Contractor within 15 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.
- B. Substitution Requests: ~~Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles. See Section 01 2513~~
1. ~~Substitution Request Form: Use form provided by Owner.~~
 2. ~~Documentation: Show compliance with requirements for substitutions and the following, as applicable:~~
 - a. ~~Statement indicating why specified material or product cannot be provided.~~
 - b. ~~Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.~~
 - c. ~~Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.~~
 - d. ~~Product Data, including drawings and descriptions of products and fabrication and installation procedures.~~
 - e. ~~Samples, where applicable or requested.~~
 - f. ~~List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.~~
 - g. ~~Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.~~
 - h. ~~Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.~~
 - i. ~~Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.~~
 - j. ~~Cost information, including a proposal of change, if any, in the Contract Sum.~~
 - k. ~~Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.~~
 - l. ~~Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.~~

- ~~3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.~~
- ~~a. Form of Acceptance: Change Order.~~
- ~~b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.~~
- ~~C. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.~~
- ~~1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor through Construction Manager of approval or rejection of proposed comparable product request within 15 <Insert time> days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.~~
- ~~a. Form of Approval: As specified in Division 1 Section "Submittal Procedures."~~
- ~~b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.~~
- ~~D. Basis of Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.~~

1.61.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.71.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:
1. Store products to allow for inspection and measurement of quantity or counting of units.
 2. Store materials in a manner that will not endanger Project structure.

3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

4.81.7 MANUFACTURER'S LABELS AND NAME PLATES

- A. Except as otherwise indicated for required labels and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on the exterior of the completed project. Visible, non-required labels and nameplates shall be removed.
 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.
 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate the nameplate on an easily accessible surface which is inconspicuous in occupied spaces. The name plate shall contain the following information as well as other essential operating data:
 - a. Name of manufacturer.
 - b. Model number.
 - c. Serial number.
 - d. Capacity.

4.91.8 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents. See Section 01 7834.
 1. ~~Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.~~
 2. ~~Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.~~
- B. ~~Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.~~
 1. ~~Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.~~
 2. ~~Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.~~
 3. ~~Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.~~
- C. ~~Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."~~

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Comply with specifications and referenced standards as minimum requirements.
- C. Provide new materials, except as specifically allowed by the Contract Documents.
- D. Components required to be supplied in quantity within a specification section shall be the same and shall be interchangeable.
- E. Product Selection Procedures:
1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
 3. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
 4. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
 5. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
 6. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.

7. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
8. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, and textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

~~2.2 PRODUCT SUBSTITUTIONS~~

- ~~A. Timing: Architect will consider requests for substitution if received within 60 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.~~
- ~~B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - ~~1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.~~
 - ~~2. Requested substitution does not require extensive revisions to the Contract Documents.~~
 - ~~3. Requested substitution is consistent with the Contract Documents and will produce indicated results.~~
 - ~~4. Substitution request is fully documented and properly submitted.~~
 - ~~5. Requested substitution will not adversely affect Contractor's Construction Schedule.~~
 - ~~6. Requested substitution has received necessary approvals of authorities having jurisdiction.~~
 - ~~7. Requested substitution is compatible with other portions of the Work.~~
 - ~~8. Requested substitution has been coordinated with other portions of the Work.~~
 - ~~9. Requested substitution provides specified warranty.~~
 - ~~10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.~~~~

~~2.3 COMPARABLE PRODUCTS~~

- ~~A. Conditions: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - ~~1. Evidence that the proposed product does not require extensive revisions to the Contract Documents that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.~~~~

- ~~2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.~~
- ~~3. Evidence that proposed product provides specified warranty.~~
- ~~4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.~~
- ~~5. Samples, if requested.~~

2.42.2 FABRICATION AND INSTALLATION

- A. Comply with industry standards except when more restrictive tolerances or requirements indicate more rigid standards or precise fabrication and installation.
- B. Perform work by persons qualified to fabricate and install materials and products of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration and racking.

2.52.3 MANUFACTURERS' INSTRUCTIONS

- A. When work is specified to comply with manufacturers' instructions, distribute copies to persons involved, and maintain one set in field office.

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 6000

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SECTION 01 7123 - FIELD ENGINEERING**PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. The Contractor will retain the services of a registered Professional, authorized in the State of California to practice Land Surveying, to establish the alignment and elevation for site improvements shown on the Civil Improvement Drawings, and to provide a letter which documents the elevation of the building pads prior to building construction.
- B. The Contractor will contract with the Professional to establish project control and to provide one set of construction stakes, which in the Owner's judgment are necessary for the Contractor to complete the following improvements
 1. Site clearing and pavement saw cut lines.
 2. Establish site rough grade.
 3. Sanitary sewer and related structures outside of the building.
 4. Storm drain and related structures outside of the building which is larger than 6-inches in diameter.
 5. Water lines outside of the building which are larger than 4-inches in diameter.
 6. Curb and gutter.
 7. Final construction of the building pad.
 8. Building layout
- C. The Contractor is responsible for establishing the alignment and elevation for site improvements which are not included as an Owner furnished service.
- D. Maintain a complete accurate log of work performed for which the contractor is responsible. Record and report deviations from the required lines and levels to the Owner's Representative. Submit Record Drawings and related documentation to the Owner's Representative.

1.2 SUBMITTALS

- A. Qualification Data: For land surveyor and professional engineer.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Certified Surveys: Submit two copies signed by professional engineer.
- D. Final Property Survey: Submit 10 copies showing the Work performed and record survey data.

1.3 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. The Contractor shall supply all necessary materials required to perform work related to this section.

PART 3 - EXECUTION

3.1 PREPARATION

- A. The Contractor is responsible for protecting and preserving established survey control, construction stakes and property monuments. The Contractor will provide the Professional with at least ten (10) days written notice before conducting work in areas where construction activity has the potential of damaging property monuments, so that the Professional authorized to practice Land Surveying can identify the location of the monument to perpetuate its location.
- B. Survey control points and property monuments which are disturbed during construction will be reset by the licensed professional at the Contractor's expense.
- C. Contractor shall provide the Owner with a monument certification letter from the Professional stating that the existing monuments have been identified and located prior to removal. Upon resetting monuments or providing permanent witness monuments, the Contractor shall provide the County Surveyor with the required documentation pursuant to Business and Professions Code Section 8771.

3.2 PROJECT SURVEY REQUIREMENTS

- A. The Contractor is responsible for establishing lines and levels, locating and laying out:
1. Batter boards for structures.
 2. Building foundations, column locations and floor levels.
 3. Utilities within the building perimeter.
 4. Mechanical and electrical work.

3.3 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect or Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect and Construction Manager before proceeding.
 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

- C. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- D. Final Property Survey: Prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by professional land surveyor (or professional engineer authorized to perform land surveying), that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
 - 2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.4 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

END OF SECTION 01 7123

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SECTION 01 7300 – EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Verification of property lines and bench mark.
- B. Verification of existing utility elevations.
- C. Layout of building and other site features.

~~D. Field engineering.~~

~~E.D.~~ General installation of products.

~~F.E.~~ Coordination of Owner-installed products.

~~G.F.~~ Progress cleaning.

~~H.G.~~ Starting and adjusting.

~~I.H.~~ Protection of installed construction.

~~J.I.~~ Correction of the Work.

1.3 RELATED SECTIONS

- A. Section 01 7700 – Closeout Procedures: Final cleaning.
- B. Section 01 78 39 "Project Record Documents" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
- C. Section 01 10 00 "Summary" for limits on use of Project site.
- D. Section 01 77 00 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.4 SUBMITTALS

~~A. Qualification Data: For land surveyor and professional engineer.~~

~~B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.~~

~~C.A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.~~

~~D. Certified Surveys: Submit two copies signed by professional engineer.~~

~~E. Final Property Survey: Submit 10 copies showing the Work performed and record survey data.~~

~~1.5 QUALITY ASSURANCE~~

~~A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land surveying services of the kind indicated.~~

~~B. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated.~~

~~1.6 EXAMINATION~~

~~A. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.~~

~~1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water service piping; and underground electrical services.~~

~~2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.~~

~~B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.~~

~~1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.~~

~~2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.~~

~~3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.~~

~~4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.~~

~~1.7 PREPARATION~~

~~A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.~~

~~B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.~~

- ~~C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.~~
- ~~D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.~~

~~1.8 CONSTRUCTION LAYOUT~~

- ~~A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.~~
- ~~B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.~~
- ~~1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.~~
 - ~~2. Establish limits on use of Project site.~~
 - ~~3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.~~
 - ~~4. Inform installers of lines and levels to which they must comply.~~
 - ~~5. Check the location, level and plumb, of every major element as the Work progresses.~~
 - ~~6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.~~
 - ~~7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.~~
- ~~C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.~~
- ~~D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.~~
- ~~E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.~~

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.

2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.

3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.

4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.13.3 GENERAL

A. Furnish all materials, labor, transportation and equipment necessary to complete this portion of the Contract.

B. Establish building location with appropriate offsets to allow for grading work.

C. Reset property stakes, if required.

D. Reset bench mark, if required.

E. Define locations of paving, walks and other site features including manholes and underground utility locations.

F. Verify the inverts or flow lines of all existing utility structures adjacent to the site or to be connected to, including but not limited to stubs, drainage channels, laterals, catch basins, junction boxes, manholes and gutters.

~~3.2 FIELD ENGINEERING~~

- ~~A. Identification: Owner will identify existing benchmarks, control points, and property corners.~~
- ~~B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.~~
- ~~1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect or Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect and Construction Manager before proceeding.~~
 - ~~2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.~~
- ~~C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.~~
- ~~1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.~~
 - ~~2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.~~
 - ~~3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.~~
- ~~D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.~~
- ~~E. Final Property Survey: Prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by professional land surveyor (or professional engineer authorized to perform land surveying), that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.~~
- ~~1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.~~
 - ~~2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."~~

~~3.33.4~~ INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
1. Make vertical work plumb and make horizontal work level.
 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 4. Maintain minimum headroom clearance of 8 feet (2.4 m) in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.43.5 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.
 - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 - 2. Preinstallation Conferences: Include Owner's construction forces at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

3.53.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).

3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 1. Remove liquid spills promptly.
 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.63.7 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.73.8 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.83.9 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01 7300

SECTION 01 7329 – CUTTING AND PATCHING**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Requirements and limitations for cutting and patching of Work.
- B. Contractor shall be responsible for cutting, fitting and patching required to complete the following work:
 - 1. Make its parts fit together properly.
 - 2. Uncover work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to Contract Documents.
 - 5. Remove samples of installed work as required for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit. In-fill and patch openings left by removal of piping, conduit, etc.
- C. Coordinate unanticipated cutting and demolition with the Architect prior to executing work.
- D. Provide special care to protect the areas of the building to be retained. Match surrounding materials and finishes. All new concrete shall match the texture, degree of smoothness and corner conditions of existing adjacent concrete.
- E. Contractor shall be responsible for patching of existing walls and ceilings to a reasonably smooth condition. This may require the removal and cutting of existing ceiling framing, hangers and brackets and patching of the remaining indents and holes.
 - 1. Contractor shall be responsible for cutting, fitting and patching required to complete Work.
 - 2. Coordinate unanticipated cutting and demolition with the Contracting Officer prior to execution of the work.
 - 3. Provide special care to protect the historic fabric of the buildings scheduled to be retained. Match surrounding materials and finishes.

1.3 RELATED SECTIONS

- A. Section 01 1100 - Summary of Work: Work by Owner or by separate contractors.
- B. Section 01 2513 – Product Substitution Procedures.
- C. Section 01 3300 – Submittals Procedures.
- D. Section 01 5000 – Temporary Facilities and Controls.
- E. Individual Product Specification Sections:
 - 1. Cutting and patching incidental to work of the Section.
 - 2. Advance notification to other Sections of openings required in work of those Sections.
 - 3. Limitations on cutting structural and other types of members.

1.4 SUBMITTALS

- A. Shop Drawings: Submit prior to cutting of any structurally or visually significant portion of the Work which is not specifically shown on the Drawings. Obtain written permission for exact location and size of openings from the Architect.
 - 1. Before cutting into any portion of the structure, obtain written permission from the Architect for each hole to be cut or enlarged. Submit shop drawings indicating exact location and size of detail of reinforcement of such openings.
- B. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Include in request:
 - 1. Identification of Project.
 - 2. Location and description of affected work.
 - 3. Necessity for cutting or alteration.
 - 4. Description of proposed work, and products to be used.
 - 5. Alternatives to cutting and patching.
 - 6. Effect on work of Owner or separate contractor.
 - 7. Written permission of affected separate contractor.
 - 8. Date and time work will be executed.

1.5 QUALITY ASSURANCE

- A. Standards: For seismic restraints of mechanical systems comply with SMACNA Manual unless more stringent requirements are indicated in Division 23.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, and result in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.6 WARRANTY

- A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Primary Products: Identical to those required for original installation.
 - 1. For exposed surfaces, use materials that virtually match existing adjacent surfaces to fullest extent possible if identical materials are unavailable or cannot be used.
 - 2. Use materials whose installed performance will equal or surpass that of existing materials.
- B. Product Substitution: For any proposed change in materials, submit request for substitution under provisions of Section 01 2513.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.
- B. After uncovering existing work, inspect conditions affecting performance of work.
- C. Report unsatisfactory or questionable conditions to Architect in writing; do not proceed with work until Architect has provided further instruction.
- D. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

- A. Provide temporary supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage.
- B. Provide protection from elements for areas which may be exposed by uncovering work.
- C. Maintain excavations free of water.
- D. Avoid cutting existing pipes, conduit, or ductwork serving building but scheduled to be removed or relocated until provisions have been made to bypass them.
- E. Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at earliest feasible time and complete.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and subsequent fitting and patching required to restore surfaces to original condition.

3.3 PERFORMANCE

- A. Execute work by methods to avoid damage to other Work, and which will provide appropriate surfaces to receive patching and finishing.
- B. When warranty may be affected by alterations to original installation of weather exposed and moisture resistant elements, and sight-exposed surfaces, employ original installer to perform cutting and patching.

- C. Cut rigid materials using masonry saw or core drill. Pneumatic tools are not allowed without prior approval.
- D. Restore work with new products in accordance with requirements of Contract Documents.
- E. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- F. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 078400, to full thickness of the penetrated element.

3.4 CUTTING AND PATCHING

- A. General: Execute cutting, fitting, and patching including excavation and fill to complete work.
 - 1. Fit products together, to integrate with other work.
 - 2. Uncover work to install ill-timed work.
 - 3. Remove and replace defective or non-conforming work.
 - 4. Remove samples of installed work for testing when requested.
 - 5. Provide openings in the work for penetration of mechanical and electrical work.
- B. Cutting:
 - 1. Perform cutting, associated structural reinforcing, and patching in a manner to prevent damage to other Work, and to provide proper surfaces for the installation of new materials, equipment and repairs. Adjust and fit products to provide a neat installation.
 - 2. Cut rigid materials using masonry saw or core drill. Pneumatic tools are not allowed without prior written approval.
- C. Gypsum Board: At the Contractor's option, on existing walls and ceilings designated for cutting and patching work, the Contractor may use any of the following methods, or combination thereof, to match adjacent wall plane and finish, and as required to meet the required fire ratings:
 - 1. Patch gypsum board walls or ceilings with new gypsum board the same thickness as existing surface.
 - 2. Patch gypsum plaster walls or ceilings using gypsum plaster to match and align with the adjacent surface thickness.
 - 3. Remove entire gypsum board or gypsum plaster surface plane and replace with new gypsum board to the corner of the wall or ceiling plane.
- D. At partitions and ceilings indicated as "existing to remain", provide modification of finishes for new Work including, but not necessarily limited to, acoustical treatment, electrical, plumbing, etc. See Drawings for extent of work.
 - 1. At Contractor's option, where modifications are required, finishes may be cut and patched, or removed and replaced on one or both sides.
- E. Patching:
 - 1. Patch surfaces to match adjacent surfaces. Finish to nearest intersection. For an assembly, refinish entire unit.
 - 2. Patch to achieve security; strength; weather protection, as applicable; efficiency, operational life, maintenance, and safety of operational elements; and to preserve continuity of existing fire ratings.
 - 3. Patch surfaces to successfully duplicate undisturbed adjacent profiles, materials, textures, finishes and colors. Use materials which match existing construction.

4. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the Architect's decision will be final.
5. Fit work to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
6. At penetrations of fire-rated walls, partitions, ceilings, and floor construction completely seal voids with fire-rated material in accordance with Section 078400, and U.L. specifications to full thickness of the penetrated element.

3.5 FINISHING

- A. Finish or refinish, as applicable, cut and patched surfaces to match adjacent finishes. Replace materials which are damaged or abused and cannot be neatly repaired as a result of cutting and patching operations.
- B. Refinish entire surfaces as necessary to provide even finish to match adjacent finishes:
 1. For continuous surfaces, refinish to nearest intersection or natural break.
 2. For an assembly, refinish entire unit.
- C. Painting: Paint over complete surface planes, unless otherwise indicated or directed. Over patched wall and ceiling surfaces, paint to nearest cutoff line for entire surface, such as the intersection with adjacent wall or ceiling, beam, or to nearest opening frame, unless otherwise indicated or directed. Painted surfaces shall not appear spotty or touched-up.

END OF SECTION 01 7329

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SECTION 01 7419 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Administrative and procedural requirements for the following:
 1. Salvaging non-hazardous demolition and construction waste.
 2. Recycling non-hazardous demolition and construction waste.
 3. Disposing of non-hazardous demolition and construction waste.

1.3 REFERENCES

- A. CALGreen – California Green Building Standards with City of Hayward Amendments, 2016 Edition.
- B. City of Hayward Municipal Code, Chapter 5, Article 10, Construction and Demolition (C&D) Debris Waste Reduction and Recycling Requirements
- C. City of Hayward Construction & Demolition Debris Webpage: <https://www.hayward-ca.gov/services/city-services/construction-and-demolition-debris-disposal>
- D. US Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) v4 Reference Guide for Building Design and Construction (BD+C), 2013 Edition; accessible at <http://www.usgbc.org/leed/v4>

1.4 WASTE MANAGEMENT GOALS FOR THE PROJECT

- A. The Owner has established that this Project shall minimize the creation of construction and demolition waste on the job site. Contributing factors include over-packaging, ordering error, poor planning, improper storage, breakage, mishandling, and contamination. Recycle as many of the waste materials as economically feasible. Minimize waste sent to landfills.
- B. Diversion Goals: A minimum of **6575%** (by weight) of total project waste shall be diverted from landfill. The following waste categories, at a minimum, shall be diverted from landfill through recycling or salvage:
 1. Clean dimensional wood, pallet wood
 2. Plywood, OSB, and particleboard
 3. Concrete
 4. Cardboard, paper, packaging
 5. Metals
 6. Gypsum drywall (unpainted)
 7. Paint
 8. Glass
 9. Plastics
 10. Carpet and pad
 11. Beverage containers

- C. ~~One hundred percent (100%)~~ The maximum possible amount of the asphalt, concrete and other similar material will be diverted from landfill.
- D. Salvage may include donations of materials to charitable organizations.

1.5 PERFORMANCE GOALS

- A. Use sustainable or renewable materials.
 - 1. Select Forest Stewardship Council (FSC) certified wood products for framing, flooring, finishes, furnishings and temporary construction applications such as bracing, concrete formwork and pedestrian barriers.
 - 2. Select rapidly renewable materials that sustainably replenish themselves in a less than 10-year cycle (e.g. linoleum: cork and linseed).
 - 3. Select materials that minimize damage to natural habitats.
- B. Use resources efficiently.
 - 1. Select materials that use resources efficiently.
 - 2. Use construction practices that achieve the most efficient use of resources and materials.
 - 3. Recycle minimum ~~65~~75% (by weight) of construction, demolition and land-clearing debris.
 - 4. Select recycled content materials (target is 20% of building materials that contain in aggregate a minimum average the post-consumer recycled content and 75% post industrial recycled content).
 - 5. Select materials that can be recycled at the end of their useful life (e.g. metal products, carpet).
- C. Use durable materials.
 - 1. Select materials with the longest usable life.
 - 2. Select materials with the least burdensome maintenance requirements.

1.6 SUBMITTALS

- A. Waste Management Plan: Within 1 week of contract award, the Contractor shall submit to the Owner a Waste Management Plan. The Plan shall contain the following:
 - 1. Designation of the party who will implement the plan
 - 2. ~~Analysis of the estimated job-site waste to be generated, including types and quantities, including identification of at least 5 different waste streams per LEED NCv4.~~Analysis of the estimated job-site waste to be generated, including types and quantities
 - 3. Proposed Alternatives to Landfilling: a list of each material planned to be salvaged or recycled during the course of the Project and the proposed destination of each material
 - 4. A signed Construction & Demolition Debris Recycling Statement (Exhibit A) to the Owner not less than 5 days prior to beginning any work that will generate C&D debris. The Contractor shall complete and sign the top portion of Exhibit A and a copy will then be returned to the applicant for future processing requirements.
 - a. By signing the top portion of Exhibit A, the Contractor acknowledges that C&D debris may only be hauled using the methods and Authorized Haulers listed on page 2 of Exhibit A and the Contractor acknowledges that C&D debris may only be hauled to Authorized Facilities listed on page 2 of Exhibit A.
 - b. During the term of the project, the Contractor shall keep a copy of all weigh tags for records.
- B. Progress Reports: Submit bi-monthly, a Waste Management Progress Report. The report shall contain the following information:

1. Project title, name of company completing report, and dates of period covered by the report
 2. Amount (in tons or cubic yards) of material landfilled from the Project and identity of the landfill
 3. For each material recycled or salvaged from the Project, provide the following:
 - a. Amount (in tons or cubic yards)
 - b. Date(s) removed from the job site
 - c. Receiving party
 - d. Cost: Bin rental, hauling, and facility fees
 - e. What was done with the material
 4. Include legible copies of on-site logs, manifests, weight tickets, and receipts. Manifests shall be from recycling and/or disposal site operators who can legally accept the materials for the purpose of reuse, recycling, or disposal.
- C. Project Completion Report:
1. Submit a letter at project close out tabulating the total waste material, quantities diverted and the means by which diverted, and declaring that the waste management goal has been met. Calculations may be done by weight or volume, but must be consistent throughout.
 2. At the end of the project, the Contractor is required to fill out the bottom "Contractor" section of Exhibit A and submit, with weigh tags, to the Owner to document compliance with this requirement. Each weigh tag shall indicate the name of the authorized facility, project name, number, the City of Hayward as the originating city, a description of the material types removed from the project site (expressed as tons or cubic yards), and whether those materials were recycled or landfilled. Exhibit A must be filled out based on the weigh tag information and approved by the City's Solid Waste Manager before the Substantial Completion date. The retention release process may be held without completion and approval of Exhibit A.
- D. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- 1.7 PROJECT MEETINGS
- A. Waste management plans and implementation shall be discussed at the following meetings:
1. Pre-bid meeting
 2. Pre-construction meeting
 3. Regular job-site meetings.
 - ~~3.4.~~ Monthly LEED meetings.
- 1.8 QUALIFIED CONSTRUCTION WASTE RECYCLING SERVICES
- A. Construction waste shall be delivered to appropriate, qualified recycling services.
1. Land-clearing debris and soil are to be counted as landfill

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Coordinate waste materials handling and separation for all trades, and document results of the Waste Management Plan.

- B. Provide separation, handling, transportation, recycling, salvage, and landfilling for all demolition and waste materials.
- C. Designate a specific area for separation of material for salvage and recycling. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination or mixing materials.
- D. Maintain an on-site log, which includes for each load of materials removed from site: type of material, load volume and/or weight, recycling/hauling service, date accepted by recycling service or landfill, and facility fee.
- E. Do not handle, separate, store, salvage, or recycle hazardous materials with other materials. Follow material-specific instructions any hazardous materials. Contact Project Manager if no instructions are evident.
- F. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 - 1. Distribute waste management plan to everyone concerned within three days of submittal return.
 - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- G. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
 - 2. Comply with Section 01 5000 for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING EQUIPMENT

- A. Salvaged equipment for Owner's Use as identified on drawings:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area designated by Owner.
 - 5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.

2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 4. Store components off the ground and protect from the weather.
 5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.
- D. Fees Charged by the Alameda County Waste Management Authority (ACWMA)
1. ACWMA has assessed a \$4.34 per-ton fee on all haulers who transport solid waste originating in Alameda County to a landfill, transfer station, recycling center, or composting facility within or outside of Alameda County. Facilities located within Alameda County include this fee in the price charged. By contrast, solid waste originating from Alameda County and delivered to facilities outside Alameda County must be reported and paid by the hauler. If you select facilities located outside Alameda County for this project, you are required to submit the required fees along with a report to ACWMA. A copy of the report shall be submitted to the City's Solid Waste Manager. The report form is available at: <http://stopwaste.org/resource/form-2009-01a>

3.4 RECYCLING DEMOLITION WASTE

- A. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.
- B. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
- C. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.
- D. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- E. Gypsum Board: Break up and transport to recycling facility.
- F. Metals: Separate metals by type.
 1. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- G. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- H. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- I. Plumbing Fixtures: Separate by type and size.
- J. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- K. Lighting Fixtures: Separate lamps by type and protect from breakage.
- L. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.
- M. Conduit: Reduce conduit to straight lengths and store by type and size.

3.5 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 01 7419

SECTION 01 7700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Procedures for substantial and final completion.
- B. Inspection and final acceptance.
- C. Record document submittals.
- D. Warranties.
- E. Final cleaning.
- F. Repair of work.

1.3 RELATED SECTIONS

- A. Section 01 7300 – Execution Requirements: Progress cleaning.
- B. Section 01 2900 "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
- C. Section 01 7839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- D. Section 01 7823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
- E. Section 01 7900 "Demonstration and Training" for requirements for instructing Owner's personnel.

1.4 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 8. Complete startup testing of systems.
 9. Submit test/adjust/balance records.
 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 11. Advise Owner of changeover in heat and other utilities.
 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 13. Complete final cleaning requirements, including touchup painting.
 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
 15. Successful completion of Functional Testing for equipment requiring LDD Commissioning.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.5 FINAL COMPLETION

- A. Owner, at its sole option, will accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of Owner.
- B. The Work may only be accepted as complete by action of the City's Public Works Director.
- C. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Division 01 Section 29 "Payment Procedures."
 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled

requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

- B. The Contractor shall notify the City in writing when Contractor considers the Work complete (with a complete listing of any minor work that may not be complete – see below). Upon notification, the Owner and Architect will prepare a list of minor items to be completed or corrected (“Punch List”). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
- C. Preparation of Contractor List of Incomplete Items: Contractor to prepare report, including name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order, starting with exterior areas first.
 - 2. Organize items applying to each space and building/floor by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file.
- D. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- E. Costs of Multiple Inspections - More than two (2) requests of the Owner to make a final inspection shall be considered an additional service of Owner, Architect, Construction Manager, and/or Project Inspector, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.
- F. Contractor shall comply with Punch List procedures as provided herein, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List. Upon receipt of Contractor’s written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, Architect and Project Inspector will inspect the Work and shall submit to Contractor and Owner a final inspection report noting the Work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.
- G. Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the Owner and Architect, who shall again inspect such Work. If the Architect finds the Work complete and acceptable under the Contract Documents, the Architect will notify Contractor, who shall then jointly submit to the Architect and the Owner its final Application for Payment.
- H. Final Inspection Requirements
 - 1. Before calling for final inspection, Contractor shall determine that the following, but is not limited to, have been performed:
 - a. The Work has been completed.
 - b. All life safety items are completed and in working order.
 - c. Mechanical and electrical Work are complete and tested/commissioned, fixtures are in place, connected, and ready for tryout.
 - d. Electrical circuits scheduled in panels and disconnect switches labeled.
 - e. Painting and special finishes complete.

- f. Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.
- g. Tops and bottoms of doors sealed.
- h. Floors waxed and polished as specified.
- i. Broken glass replaced and glass cleaned.
- j. Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.
- k. Work cleaned, free of stains, scratches, and other foreign matter, of damaged and broken material replaced.
- l. Finished and decorative work shall have marks, dirt, and superfluous labels removed.
- m. Final cleanup, as provided herein.
- n. Utility Connections - Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected.

1.7 PARTIAL OCCUPANCY OR USE PRIOR TO COMPLETION

A. Owner's Rights

- 1. The Owner may occupy or use any completed or partially completed portion of the Work at any stage. The Owner and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. Any dispute as to responsibilities shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, the Owner shall have the right to occupy or use any portion of the Work that it desires to. Also refer to section 2.2 of section 00 7213 "General Conditions" for additional details.

B. Inspection Prior to Occupancy or Use

- 1. Immediately prior to partial occupancy or use, the Owner, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

C. No Waiver

- 1. Unless otherwise agreed upon, partial or entire occupancy or use of a portion or portions of the Work shall not constitute beneficial occupancy or acceptance of the Work not complying with the requirements of the Contract Documents.

1.8 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

- 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
- 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.

3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Provide electronic PDF file of all warranty documentation.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.

- I. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - m. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - n. Replace parts subject to unusual operating conditions.
 - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - r. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 7700

SECTION 01 7834 – WARRANTIES AND BONDS**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DESCRIPTION

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers' standard warranties, warranties on products and special warranties.
- B. Refer to the General conditions for terms of the Contractor's special warranty of fabrication, installation, and materials.
- C. Specific requirements for warranties for the work and products and installations that are specified to be guaranteed or warranted are included in the individual Sections of Divisions 2 through ~~3548~~.
 - 1. Where not specifically stated in individual sections, provide a minimum one year warranty from date of Acceptance of work for labor and materials.
 - 2. Provide manufacturer's standard form in which manufacturer or installer as appropriate to the system specified, agrees to repair or replace components of the specified system or components that do not comply with requirements or that deteriorate within one year from date of Acceptance of work~~from the date of Substantial Completion~~. The start date for all manufacturer's and/or extended warranties must be clearly indicated on the warranties provided.
- D. Certifications and other commitments and agreements for continuing services to the Owner are specified elsewhere in the Contract Documents.
- E. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.3 DEFINITIONS

- A. The terms product warranty or warranty are synonymous for this Project and shall be taken to mean the required warranty or warranty required by the Contract General Conditions or by the Contract Drawings or Specifications.
- B. Standard Product Warranties are pre-printed written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- C. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner. Special Warranties shall be in writing.

1.4 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. Reinstatement of Warranty: When work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited from use of the work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
 - 1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- E. The Owner reserves the right to refuse to accept work for the Project where a special warranty, certification, or similar commitment is required on such work or part of the work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.5 SUBMITTALS

- A. Submit a copy of the Standard or Special written warranties to the Owner for each specification section as part of the complete submittal package for review and approval by the Architect.
- B. Submit written warranties to the Owner prior to the date of **A**acceptance by the Owner. Submittal of the project Guarantees and Warranties is a requirement precedent to the filing of the Notice of Completion by the Owner.
 - 1. When a designated portion of the work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period but prior to **A**acceptance of the entire project, contractor shall submit properly executed warranties to the Owner within fifteen days of occupancy or use of that designated portion of the work.
- C. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner through the Architect for approval prior to final execution.
- D. Form of Submittal: At Final Completion compile two **hard copies (and one electronic copy)** of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.

- E. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, two inch maximum ring size, and sized to receive 8-1/2-inch by 11-inch paper.
1. Cover: Identify each binder on the front and the spine with the typed or printed title "WARRANTIES, GUARANTEES, AND BONDS", the Project title or name, and the name of the Contractor.
 2. Table of Contents: Contractor shall provide title of Project; name, address, and telephone number of Contractor and equipment supplier, and name of responsible principal. Contractor shall identify each item with the number and title of the specific Specification, document, provision, or section in which the name of the product or work item is specified.
 3. Contractor shall separate each warranty with index tab sheets keyed to the Table of Contents listing, providing full information and using separate typed sheets as necessary. Contractor shall list each applicable and/or responsible Subcontractor(s), supplier(s), and/or manufacturer(s), with name, address, and telephone number of each responsible principal(s).
 4. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS - NOT USED.

PART 3 - EXECUTION - NOT USED.

END OF SECTION 01 7834

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SECTION 01 7839 – PROJECT RECORD DOCUMENTS**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
1. Record Drawings.
 2. Record Specifications.
 3. Record Product Data.
 4. Miscellaneous record submittals.
- B. Related Sections:
1. Section 01 7300 - Execution Requirements: For final property survey.
 2. Section 01 7700 - Closeout Procedures: For general closeout procedures.
 3. Section 01 7823 - Operation and Maintenance Data: For operation and maintenance manual requirements.
 4. Divisions 02 through 48 Sections for specific requirements for project record documents of the Work in those Sections.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
1. Number of Copies: Submit copies of Record Drawings as follows:
 - a. ~~Initial Submittal: Submit one (1) set(s) of corrected Record Transparencies and one (1) set(s) of marked-up Record Prints. Architect will initial and date each transparency and mark whether general scope of changes, additional information recorded, and quality of drafting are acceptable. Architect will return transparencies and prints for organizing into sets, printing, binding, and final submittal.~~
 - 1) Submit PDF electronic files of scanned record prints and one of file prints.
 - 2) Submit record digital data files and one set(s) of plots.
 - 3) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal: Submit one set(s) of marked-up Record Prints, and the following:
 - 1) ~~Record Transparencies: one (1) set(s).~~
 - 1) Submit PDF electronic files of scanned record prints and one of file prints.
 - 2) Submit record digital data files and three set(s) of record digital data plots.
 - 3) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - 2) ~~Record CAD Drawing Files and Plots: one (1) set(s).~~

- ~~3) Copies printed from Record Transparencies: Three (3) sets. Print each Drawing, whether or not changes and additional information were recorded.~~
- ~~4) Plot each drawing file, whether or not changes and additional information were recorded. Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.~~

- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit annotated PDF electronic files and directories of each submittal.
 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit annotated PDF electronic files and directories of each submittal.
- E. Reports: Submit written report weekly indicating items incorporated in Project record documents concurrent with progress of the Work, including modifications, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings.
 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.

- m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect and Construction Manager. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
1. Format: Annotated PDF electronic file with comment function enabled.
 2. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 3. Refer instances of uncertainty to Architect through Construction Manager for resolution.
 4. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
 - a. Refer to Division 01 Section "Submittal Procedures" for requirements related to use of Architect's digital data files.
 - b. Architect will provide data file layer information. Record markups in separate layers.
- C. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 2. Consult Architect and Construction Manager for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- D. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Format: Annotated PDF electronic file with comment function enabled.
 3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect and Construction Manager.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 - 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file or scanned PDF electronic file(s) of marked up paper copy of Specifications.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file or scanned PDF electronic file(s) of marked up paper copy of Product Data.
 - 1. Include record Product Data directory organized by specification section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file or scanned PDF electronic file(s) of marked up miscellaneous record submittals.
 - 1. Include miscellaneous record submittals directory organized by specification section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.

- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's and Construction Manager's reference during normal working hours.

END OF SECTION 01 7839

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SECTION 01 7843 – SPARE PARTS AND MAINTENANCE MATERIALS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Products required
- B. Storage and delivery of products

1.2 RELATED REQUIREMENTS

- A. Section 01 3300 – Submittal Procedures
- B. Section 01 6000 – Product Requirements: Storage and Protection
- C. Section 01 7700 – Closeout Procedures
- D. Section 01 7823 – Operation and Maintenance Data
- E. Individual Specification Sections: Specific spare parts and materials required.

1.3 PRODUCTS REQUIRED

- A. Provide quantities of products, spare parts, maintenance tools and maintenance materials specified in individual sections to be provided to Owner, in addition to that required for completion of Work.
- B. Products: identical to those installed in the Work. Include quantities in original purchase from supplier to avoid variations in manufacturer.
- C. Summary reference schedule to supplement individual Sections is included in this Section.

1.4 STORAGE AND MAINTENANCE

- A. Store products with products to be installed in the Work, under provisions of Section 01 6000.
- B. When adequate, secure storage facilities are available at site, capable of maintaining conditions required for storage and not required for Contract Work or storage, spare products may be stored in available space.
- C. Maintain spare products in original containers with labels intact and legible, until delivery to Owner. No opened or partially used cans of paint will be accepted.

1.5 DELIVERY

- A. Coordinate with Architect/Owner:
 - 1. Provide Architect with list of all items (see paragraph 1.6 of this Section) required per the specifications, for review and approval, listing:
 - a. Section
 - b. Paragraph
 - c. Item

d. Requirement (quantity, color, etc.)

- B. Upon approval, Contractor will deliver and unload spare products at Project Site (or as directed by the Owner) and coordinate inspection by the Architect.
 - 1. Architect will confirm all required items are provided in acceptable condition and accept the materials in writing. Contractor to obtain receipt prior to final payment.

1.6 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, and maintenance materials in quantities specified in each Section, in addition to that used for construction of work. Coordinate with Owner, deliver to Project site and obtain receipt prior to final payment.
- B. At the completion of the project, all loose keys for hose bibs; adjustment keys and wrenches for door closers and panic hardware; and keys for electric switches, electrical panels, etc., shall be accounted for by the Contractor and turned over to the Owner.

1.7 SCHEDULE OF SPARE PARTS AND MAINTENANCE MATERIALS

- A. Separate the summary of materials by: Architectural, Mechanical, Plumbing, Electrical. Use the following format.

ARCHITECTURAL

Section	Paragraph	Item	Requirement	Architect's acceptance (date)

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 01 7843

SECTION 01 7900 – DEMONSTRATION AND TRAINING**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Demonstration and training video recordings.
- B. Related Sections include the following:
 - 1. Divisions 2 through 48 Sections for specific requirements for demonstration and training for products in those Sections.

1.3 SUBMITTALS

- A. Instruction Program: Submit two copies of outline of instructional program for demonstration and training, including a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. At completion of training, submit two complete training manual(s) for Owner's use.
- B. Qualification Data: For facilitator and instructor.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.
- E. Demonstration and Training Video Recordings: Submit two DVD copies within seven days of end of each training module.
 - 1. Identification: On each copy, provide an applied label with the following information:
 - a. Name of Project.
 - b. Name and address of photographer.
 - c. Name of Architect and Construction Manager.
 - d. Name of Contractor.
 - e. Date video recording was recorded.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - 2. Transcript: Prepared on 8-1/2-by-11-inch (215-by-280-mm) paper, punched and bound in heavy-duty, 3-ring, vinyl-covered binders. Mark appropriate identification on front and spine of each binder. Include a cover sheet with same label information as the corresponding video recording. Include name of Project and date of video recording on each page.

1.4 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Division 1 Section "Quality Requirements," experienced in operation and maintenance procedures and training.
- C. Photographer Qualifications: A professional photographer who is experienced photographing construction projects.
- D. Preinstruction Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
 - 1. Inspect and discuss locations and other facilities required for instruction.
 - 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
 - 3. Review required content of instruction.
 - 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.5 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections, and as follows:
 - 1. Motorized doors, including overhead coiling doors and four-fold doors.
 - 2. Equipment, including waste compactors, food-service equipment, residential appliances.
 - 3. Fire-protection systems, including fire alarm, fire pumps, and fire-extinguishing systems.
 - 4. Intrusion detection systems.
 - 5. Conveying systems, including elevators.
 - 6. Medical equipment, including medical gas equipment and piping.
 - 7. Heat generation, including boilers, feedwater equipment, pumps, steam distribution piping, and water distribution piping.

8. Refrigeration systems, including chillers, cooling towers, condensers, pumps, and distribution piping.
 9. HVAC systems, including air-handling equipment, air distribution systems, and terminal equipment and devices.
 10. HVAC instrumentation and controls.
 11. Electrical service and distribution, including transformers, switchboards, panelboards, uninterruptible power supplies, and motor controls.
 12. Packaged engine generators, including transfer switches.
 13. Lighting equipment and controls.
 14. Communication systems, including intercommunication, surveillance, clocks and programming, voice and data, and television equipment.
 15. Building Energy Management System.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:
1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project Record Documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.
 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
 4. Operations: Include the following, as applicable:
 - a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.

5. Adjustments: Include the following:
 - a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
 - a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 1. Owner will furnish an instructor to describe Owner's operational philosophy.
 2. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 1. Schedule training with Owner, through Architect, through Construction Manager, with at least seven days' advance notice.
- D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a demonstration performance-based test.

- E. Cleanup: Collect used and leftover educational materials and remove from Project site give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

3.3 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

- A. General: Engage a qualified commercial photographer to record demonstration and training video recordings. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
 - 1. At beginning of each training module, record each chart containing learning objective and lesson outline.
- B. Video recording Format: Provide high-resolution, digital video disc in format acceptable to Architect.
- C. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to show area of demonstration and training. Display continuous running time.
- D. Narration: Describe scenes on video recording by audio narration by microphone while dubbing audio narration or off-site after video recording is recorded. Include description of items being viewed. Describe vantage point, indicating location, direction (by compass point), and elevation or story of construction.
- E. Transcript: Provide a typewritten transcript of the narration. Display images and running time captured from video recording opposite the corresponding narration segment.

END OF SECTION 01 7900

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SECTION 01 8113 - SUSTAINABILITY DESIGN REQUIREMENTS**PART 1 - GENERAL**

1.1 SUMMARY

- A. This Section includes general requirements and procedures for compliance with certain USGBC LEED prerequisites and credits needed for the Hayward Fire Training Center project to obtain a minimum of LEED Silver certification based on USGBC's LEED Version 4 for Building Design and Construction.
1. Other LEED prerequisites and credits needed to obtain LEED certification depend on product selections and may not be specifically identified as LEED requirements. Compliance with requirements needed to obtain LEED prerequisites and credits may be used as one criterion to evaluate substitution requests and comparable product requests.
 2. A copy of LEED Scorecard is attached to the end of this Section for information only.
 3. Some LEED prerequisites and credits needed to obtain the indicated LEED certification depend on the Architect's design and other aspects of the Project that are not part of the Work of the Contract.

1.2 DEFINITIONS

- A. LEED: USGBC's "LEED Version 4 for Building Design and Construction."
1. Definitions that are a part of "LEED Version 4 for Building Design and Construction" (LEED v4 BD+C) apply to this Section.
 2. LEED (Leadership in Energy and Environmental Design): Green building rating system of US Green Building Council (USGBC).
 - a. LEED is a voluntary program that provides third party verification of green buildings through the Green Building Certification Institute (GBCI).
 - b. Four levels of certification are possible - Certified, Silver, Gold, or Platinum - based on total points earned in five major environmental categories along with one Innovation and Design Process category and one Regional Priority category.
- B. Owner's Project Requirements (OPR): Written document that details the ideas, concepts, and criteria that are determined by the Owner to be important to the success of the Project.
- C. Basis of Design (BOD): Includes design information necessary to accomplish the owner project requirements including system descriptions, indoor environmental quality criteria, design assumptions, and references to applicable codes, standards, regulations, and guidelines.
- D. Chain-of-Custody Certificates: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001. Certificates shall include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.

- E. LEED Consultant: A representative from the firm engaged by the Owner specifically for assisting the team with coordinating the LEED process.
- F. Construction Manager: A representative from the Construction Management firm who is responsible for reviewing and reporting on activities on site as they relate to LEED.
- G. LEED Online Forms: Documents created by the U.S. Green Building Council that must be completed and submitted with the final LEED application.
- H. LEED Supporting Documentation: Documentation written by manufacturers, suppliers and/or third party verifiers that confirms a product meets individual LEED credit requirements.
- I. LEED Champion: The member of the design and/or construction team who is responsible, in full or in part, for managing the design/construction process such that the project meets the requirements of the LEED credit or prerequisite in question.
- J. Regional Materials: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles of Project site. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.
- K. Recycled Content: The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.
 - 1. "Postconsumer" material is defined as waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product, which can no longer be used for its intended purpose.
 - 2. "Preconsumer" material is defined as material diverted from the waste stream during the manufacturing process. Excluded is reutilization of materials, such as rework, regrind, or scrap, generated in a process and capable of being reclaimed within the same process that generated it. Note that LEED uses the term "preconsumer" rather than "postindustrial." Also note that when manufacturers and trade associations use the term "postindustrial," it often includes spills, scraps, and damaged and surplus materials that are fed back into the same manufacturing process and that these materials are not considered recycled content by the LEED Rating Systems.
- L. California Department of Public Health (CDPH) Standard Method performance and Documentation Requirements: Building products must be tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1–2010 (or later), using the applicable exposure scenario. The default scenario is the private office scenario. The manufacturer's or third-party certification must state the exposure scenario used to determine compliance. Claims of compliance for wet-applied products must state the amount applied in mass per surface area. Manufacturers' claims of compliance with the above requirements must also state the range of total VOCs after 14 days (336 hours), measured as specified in the CDPH Standard Method v1.1:
 - 1. 0.5 mg/m³ or less;
 - 2. between 0.5 and 5.0 mg/m³; or
 - 3. 5.0 mg/m³ or more

- M. Volatile Organic Compounds (VOC): Chemicals that are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long- term adverse health effects.
- N. Environmental Product Declaration (EPD): a statement that the item meets the environmental requirements of ISO 14021-1999, ISO 14025-2006 and EN 15804, or ISO 21930-2007.
- O. Health Product Declaration (HPD): an open standard for reporting product ingredients and their associated health hazards. An HPD is several pages long, with a one-page summary listing company information, metadata about the report, and ingredients, and continuing on subsequent pages with more detail about individual ingredients and their associated health hazards, plus details on any certifications and associated materials. GreenScreen Benchmarks, if any, are listed for each ingredient in HPDs, in the contents section. A report from a certified GreenScreen profiler may also be used to document the GreenScreen benchmarks for a product's ingredient,

1.3 REFERENCES

- A. LEED v4 Reference Guide for Building Design and Construction (BD+C), 2013 Edition. An essential supplement to LEED v4 BD+C Rating System:
 - 1. A fuller discussion of credit and documentation requirements, green building issues, design approaches, calculation methodologies, references, definitions, case studies.
 - 2. Available for a fee from USGBC website at www.usgbc.com.
- B. LEED Online Templates: Adobe PDF forms that prompt the responsible party to declare that the requirements of each prerequisite and credit are met. LEED Online calculators and templates are available to team members at LEED-Online after the LEED Project Administrator invites you to join the project at www.leedonline.com.
- C. Carpet and Rug Institute Green Label Plus program.
- D. U.S. Environmental Protection Agency WaterSense Program (WaterSense).
- E. U.S. Environmental Protection Agency ENERGY STAR Program (ENERGY STAR).
- F. Green Electronic Council EPEAT Program (EPEAT).
- G. South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004.
- H. South Coast Air Quality Management District (SCAQMD) Rule 1168, July 1, 2005 and rule amendment date of January 7, 2005.
- I. Sheet Metal and Air Conditioning National Contractors' Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd Edition (ANSI/SMACNA 008-2008), Chapter 3.
- J. California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,

Version 1.1, Emission Testing method for California Specification 01350 (CDPH Standard Method V1.1-2010).

- K. CARB 93120 ATCM 2007 composite wood formaldehyde regulation: arb.ca.gov/toxics/compwood/compwood.htm
- L. ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions from Office Furniture Systems, Components and Seating: bifma.org
- M. ANSI/BIFMA e3-2011 Furniture Sustainability Standard: bifma.org

1.4 REQUIREMENTS

- A. This project is required to earn a LEED v4 BD+C Silver certification at a minimum. This level has been identified as achievable for this project.
- B. LEED BD+C requirements have been incorporated into the design drawings and specifications in support of the credits identified in the LEED BD+C checklist, included at the end of this document.
- C. Divisions 1-48 of this specification contain product criteria required to achieve particular LEED credits.
- D. Achievement of LEED requirements are documented through LEED documentation submittals which are provided to the GBCI in the LEED Application submitted via LEED Online.
- E. The Contractor shall appoint in writing a LEED Manager for the project.
- F. The Contractor's LEED Manager will be directly responsible for:
 - 1. Ensuring the Contractor's compliance with LEED Requirements of the project for the Contractor's attainment of the Construction Phase Prerequisite and Credit requirements.
 - 2. Developing and maintaining all of the Contractor's LEED BD+C Construction Phase submittal documentation including calculations, collection and collation of all materials to be turned over to LEED Online.
 - 3. Providing such information in a timely manner as scheduled and upon request to facilitate compliance with the formal LEED Certification compliance efforts
 - 4. Cooperating with the Owner's representatives responsible for overall project LEED Compliance and shall provide such information as specified in this section or required by the USGBC LEED BD+C v4 Reference Guide.
 - 5. Maintain a copy of LEED v4 Building Design and Construction (LEED BD+C) Reference Guide at the project site construction office.
 - 6. Submit LEED information and Final Submittal in electronic format for inclusion in certification application to GBCI.
 - 7. Include digital photographs and back-up hardcopy documentation to Architect and the LEED Project Administrator.
 - 8. Arrange and conduct LEED Review meetings at least once per month.
 - 9. Submit a schedule of LEED Review Meetings to Architect for review within 14 calendar days of Notice to Proceed.

10.

1.5 PRE-CONSTRUCTION MEETINGS

- A. Pre-Construction Conference: Conduct in-person conference at general contractor's trailer or other agreed location. Review LEED requirements and action plans for complying with requirements.

1.6 SUBMITTALS

A. General:

1. Submit additional LEED submittals required by other Specification Sections.
2. LEED Online: Complete LEED Online forms and upload required documentation.
3. Qualification Data: For LEED coordinator.
4. Project Materials Cost Data: Provide statement indicating total cost for materials used for Project. Costs exclude labor, overhead, and profit. Include breakout of costs for the following categories of items:
 - a. Furniture.
 - b. Plumbing.
 - c. Mechanical.
 - d. Electrical.
 - e. Specialty items such as elevators and equipment.
 - f. Wood-based construction materials.

- B. LEED submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated LEED requirements.

C. Sustainability Action Plan:

1. Submit documentation as required by this section; provide additional copies of typical submittals required under technical sections when sustainable construction requires copies of record submittals.
2. Within 30 days after Preconstruction Meeting provide a narrative plan for complying with requirements stipulated within this section, including:
 - a. Prereq 2/Credit MRc5 Construction and Demolition Waste Management Planning: Waste management plan. Include official statement on company letterhead indicating the company's intention to comply with waste management plan.
 - b. Credit MRc2: List of products from manufacturers who have verified improved environmental life-cycle impacts.
 - c. Credit MRc3: List of products verified to have been extracted or sourced in a responsible manner.
 - d. Credit MRc4: List of products for which the chemical ingredients in the product are inventoried using an acceptable methodology and which are verified to minimize the use and generation of harmful substances.
 - e. Credit IEQc3: Construction indoor air quality management plan.
 - f. Prereq 1 Construction Activity Pollution Prevention: Provide a copy of the FSC or SWPPP in compliance with LEED requirements.

- g. Sustainability Action Plan must:
 - 1) Refer to sustainable construction submittals defined by this section.
 - 2) Address all items listed under PERFORMANCE CRITERIA.
 - 3) Indicate individual(s) responsible for implementing the plan. Include official statement on company letterhead indicating the company's intention to comply with construction indoor-air-quality management plan.

- D. LEED Progress Reports: Concurrent with each Application for Payment, submit:
 - 1. Completed Green Building Material Certification Form as cover page.
 - 2. Reports comparing actual construction purchasing activities with LEED action plans for the following:
 - a. Credit MRc5: Waste reduction progress reports complying with Section 01 74 19 Construction Waste Management and Disposal."
 - b. Credit MRc2: Building Product Disclosure and Optimization – Environmental Product Declarations
 - c. Credit MRc3: Building Product Disclosure and Optimization – Sourcing of Raw Materials
 - d. Credit MRc4: Building Product Disclosure and Optimization – Material Ingredients
 - e. Include narratives of revised strategies for bringing work progress into compliance with plan and product submittal data and calculations to demonstrate compliance with thresholds based on materials costs.
 - f. Include updated and current BPDO Materials Calculator Spreadsheet.
 - g. Include updated and current Low-Emitting Materials Tracking Spreadsheet
 - h. Include construction waste tracking, in tons or cubic yards, including waste description, whether diverted or landfilled, hauler, and percent diverted for comingled quantities; and excluding land-clearing debris and soil. Provide haul receipts and documentation of diverted percentages for comingled wastes.
 - 3. Include current photos measures and methods taken by which absorptive materials (installed or stored on-site) were protected from moisture damage during construction and pre-occupancy. Include SMACNA design approaches met or exceeded during construction.

1.7 LEED DOCUMENTATION SUBMITTALS

- A. SSc5 Heat Island Reduction Non-roof and Roof Measures:
 - 1. Paving: Use paving materials with a three-year aged solar reflectance (SR) value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.
 - 2. Roof: Use roofing materials with a three-year aged SRI of 64. Meet the three-year aged SRI value. If three-year aged value information is not available, use materials with an initial SRI of at least 82 at installation.

- B. MRp2/MRc5 Construction Waste Management Plan
 - 1. General: Develop a waste management plan per the requirements in this Section, as well as the requirements indicated in the LEED for New Construction Reference Guide, version 4, under Materials and Resources Credit Construction and Demolition Waste Management. Plan shall consist of the following sections: Waste Management Goals, Overall Waste Diversion Goal, Responsible Parties, Waste Identification (at least 5

kinds of materials), Means and Method of Diversion, Contamination Prevention Measures, Communication and Education Measures, and Onsite Recycling Operations. Distinguish between demolition and construction waste. Specify whether materials will be separated or commingled and describe planned diversion strategies. Indicate quantities by weight or volume but use same units of measure throughout waste management plan. The plan shall result in end-of-Project diversion rates of minimum 75 percent by weight or volume of the total waste generated by the work and must include at least 4 material streams.

- a. Waste Identification: Indicate anticipated types and quantities of demolition, site-clearing and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
 - 1) The list of these materials is to include, at minimum, the following materials:
 - a) Cardboard.
 - b) Clean dimensional wood.
 - c) Beverage containers.
 - d) Land clearing debris.
 - e) Concrete.
 - f) Bricks.
 - g) Concrete Masonry Units (CMU).
 - h) Asphalt.
 - i) Metals from banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - j) Drywall
 - k) Carpet and carpet pads
- b. Waste Reduction Work Plan: List each type of waste and whether it will be recycled or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, proposed local market and handling and transportation procedures.
 - 1) Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 - 2) Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - 3) Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - 4) Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 - 5) Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
 - 6) Handling and Transportation Procedures: Include a description of the means by which any waste materials identified will be protected from contamination, method that will be used for separating recyclable waste

including sizes of containers, container labeling, and designated location where materials separation will be performed (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site) and a description of the means of transportation.

- C. MRc2 Building Product Disclosure and Optimization – Environmental Product Declarations: The following documentation and certifications are acceptable:
1. Product-specific Type III Environmental Product Declaration (EPD): Manufacturer’s Type III Third Party Verified product life cycle assessment documenting environmental impact of the product throughout its life cycle (i.e., from cradle to gate) that is verified by an ISO/IEC 17065 accredited certification body.
 2. Industry-wide (generic) Environmental Product Declaration (EPD): Manufacturer’s Type III Third Party Verified product life cycle assessment documenting environmental impact of the product throughout its life cycle (i.e., from cradle to gate) that is verified by an ISO/IEC 17065 accredited certification body.
 3. Product Specific Declaration: Publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that has at least a cradle to gate scope.
- D. MRc3 Building Product Disclosure and Optimization – Sourcing of Raw Materials: The following documentation and certifications are acceptable:
1. Manufacturer-based Extended Producer Responsibility (EPR): Brochure describing the EPR program or a letter from the manufacturer verifying that an EPR program is in place. Both must include contact information, plus proof that the product purchased for the project is included in the program.
 2. Third-party Extended Producer Responsibility (EPR): Brochure that describes the recycling process and states the average rate of return for the material.
 3. Certified Wood: Vendor invoices and FSC CoC certification.
 4. Bio-based Materials: Rainforest Alliance Certification, or the manufacturer provides a signed letter on company letterhead from the raw material supplier attesting that its practices meet the standard and includes a link to a publicly available document that specifies how the raw material supplier’s practices conform to each paragraph in all 10 sections of the standard and attesting that each “critical criterion” is met (must be dated within 1 year before the date of project registration).
 5. Salvaged Furniture: Demonstrate these materials were purchased at least 2 years before the date of project registration.
 6. Leased Furniture: Demonstrate these materials have been in service for at least 2 years before being installed in the current project.
 7. Salvaged or Reused Materials: Document source location.
 8. Recycled Content: Documentation of recycled content that conforms to the definition in ISO 14021–1999, Environmental Labels and Declarations, Self-Declared Environmental Claims (Type II Environmental Labeling).
- E. MRc4 Building Product Disclosure and Optimization – Material Ingredients: The following documentation and certifications are acceptable:
1. Manufacturer Inventory: manufacturer’s publicly available list of ingredients with GreenScreen assessment reports for confidential ingredients.
 2. Health Product Declaration
 3. Cradle to Cradle certification label

- F. IEQc2 Low-Emitting Materials: Submit product data confirming compliance with relevant requirements for all materials on Project in categories described under Low-Emitting Materials in 01 81 13.
1. Paints and Coatings: Product data indicating Volatile Organic Compound (VOC) content in grams per Liter (g/L) and verification of Emissions testing in compliance with CDPH Standard Method v1.1-2010 (or later). Options:
 - a. Manufacturer's Technical Data Sheet, or
 - b. Copy of product label.
 2. Adhesives and Sealants: Product data indicating Volatile Organic Compound (VOC) content in grams per Liter (g/L) and verification of Emissions testing in compliance with CDPH Standard Method v1.1-2010 (or later). Options:
 - a. Manufacturer's Technical Data Sheet, or
 - b. Copy of product label.
 3. Composite Wood and Agrifiber Products: Product data indicating No Added Formaldehyde (NAF) resin system for composite wood and agrifiber products from options listed below:
 - a. Certification or copy of product label indicating that wood and agrifiber product is classified as CARB Exempt, CARB ULEF, or EPA TSCA Title VI
 - b. Manufacturer's Technical Data Sheet, or
 - c. Testing reports
 4. Insulation: Data for each batt, blanket and wet-spray insulation product indicating binder is not formaldehyde based. Data for spray-in-place insulation showing product is not formed by reacting an amine chemical group with formaldehyde
 5. Carpet System:
 - a. For carpet and carpet cushion, documentation indicating compliance with testing requirements of CRI's (Carpet and Rug Institute) "Green Label Plus" program. If alternative testing by CDPH (California Department of Public Health) Standard Method V1.1 is used, provide documentation as specified in Section C below.
 - b. For installation adhesive, documentation of VOC content in g/L and verification of Emissions testing in compliance with CDPH Standard Method v1.1-2010 (or later).
 6. Resilient and Tile Flooring and Flooring Adhesives: Documentation indicating compliance with testing requirements of Resilient Floor Covering Institute (RFCI) FloorScore™ program. If alternative testing by CDPH Standard Method V1.1 is used, provide documentation as specified in Section C below.
- G. IEQc2 Low-Emitting Materials Tracking Spreadsheet:
1. Within 30 days after Preconstruction Meeting provide a preliminary Low-Emitting Materials Tracking Spreadsheet. The Low-Emitting Materials Tracking Spreadsheet must be an electronic file and include all materials on Project in categories described under Low-Emitting Materials in 01 81 13.
- H. IEQc3 Construction Indoor Air Quality (IAQ) Management Plan:
1. Not more than 30 days after Preconstruction Meeting provide a Construction IAQ Management Plan as an electronic file including descriptions of the following:
 - a. Instruction procedures for meeting or exceeding all applicable recommended control measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under

Construction, 2nd edition, 2007, ANSI/SMACNA 008–2008, Chapter 3 including procedures for HVAC Protection, Source Control, Pathway Interruption, Housekeeping, and Scheduling.

- b. Instruction procedures for protecting absorptive materials stored on-site or installed from moisture damage.
 - c. Schedule of submission of photographs of on-site construction IAQ management measures such as protection of ducts and on-site stored oil installed absorptive materials.
 - d. Instruction procedures if air handlers must be used during construction, including a description of filtration media to be used at each return air grille.
 - e. Instruction procedure for replacing all air-filtration media immediately prior to occupancy after completion of construction, including a description of filtration media to be used at each air handling or air supply unit.
 - f. Instruction procedures and schedule for implementing building flush-out.
- I. IEQc4 Indoor Air Quality Assessment Air Testing or Building Flush-out:
- 1. Air Testing Documentation: Instruction procedures and schedule for implementing building air testing in compliance with LEEDv4 as follows:
 - a. Provide a copy of IAQ test results including:
 - 1) Test date(s), testing protocols and scope.
 - 2) Sampling locations w/ respect to floor area, size and ventilation system.
 - 3) Air testing report highlighting:
 - a) Test date(s)
 - b) Concentrations of formaldehyde, particulates (PM10 or PM 2.5, as applicable), ozone (as applicable), total volatile organic compounds (TVOC), target chemicals from CDPH Standard Method v1.1, and carbon monoxide (CO)
 - c) Test methods and any modifications made to the test methods. Explain how modifications assume that similar or better data are obtained.
 - 2. Flush-out Documentation:
 - a. Product data for filtration media used during flush-out.
 - b. Product data for filtration media installed immediately prior to occupancy.
 - c. Signed statement describing building air flush-out procedures including dates when flush-out was begun and completed and statement that filtration media was replaced after flush-out.
- J. Closeout Submittals: Within 30 days after Substantial Completion provide the following in LEED Online:

SS Prereq 1 Construction Activity Pollution Prevention	<ul style="list-style-type: none"> ☑ Completed LEED form ☑ Description of how the project complies with the requirements of the 2012 EPA CGP ☑ Copy of SWPPP inspection log ☑ Word doc w/ annotated photos of BMP from ESC plan being carried out (a few photos from
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	beginning, middle and end of project)
SS Credit 5 Heat Island Reduction	<input type="checkbox"/> Completed the Non-roof and Roof Table in LEED online form w/ roof slope, material description, SRI value <input type="checkbox"/> Copy of roof and/or paving cut sheet that states SRI value of materials
MR Credit 2 Building Product Disclosure and Optimization - Environmental Product Declarations	<input type="checkbox"/> Completed LEED form w/ % of waste diverted from landfill Copy of CWM Plan
MR Credit 2 Building Product Disclosure and Optimization - Environmental Product Declarations	<input type="checkbox"/> Completed LEED form <input type="checkbox"/> Copy of BPDO Calculator <input type="checkbox"/> EPD documentation: copy of EPD documents or website address where the publicly available EPD can be found
MR Credit 3 Building Product Disclosure and Optimization - Sourcing of Raw Materials	<input type="checkbox"/> Completed LEED form <input type="checkbox"/> Copy of BPDO Calculator <input type="checkbox"/> Copy of documentation of recycled content, FSC wood or other category pursued
MR Credit 4 Building Product Disclosure and Optimization - Material Ingredients	<input type="checkbox"/> Fill out LEED form <input type="checkbox"/> Copy of BPDO Calculator <input type="checkbox"/> Material ingredient reports: copy of HPD reports or website address where the publicly available HPD can be found
MR Credit 5 Construction and Demolition Waste Management	<input type="checkbox"/> Completed LEED form <input type="checkbox"/> Copy of Construction & Demo Waste Calculator (found under the credit's "Resources" tab in the Credit Library) or equivalent documentation <input type="checkbox"/> For projects diverting commingled waste <input type="checkbox"/> Provide documentation verifying the diversion rate of commingled waste. Documentation can either be a project-specific diversion rate(s) provided by the sorting facility or the average annual recycled rate for the sorting facility.
IEQ Credit 2 Low-Emitting Materials	<input type="checkbox"/> Completed LEED form <input type="checkbox"/> Copy of Low-emitting Materials

	<p>Calculator</p> <ul style="list-style-type: none"> ☐ Upload: Low-emitting product documentation for all products included in the Low-Emitting Materials Calculator: provide manufacturer or testing documentation such as URLs to product information, cutsheets, or MSDS.
<p>IEQ Credit 3 Construction Indoor Air Quality Management Plan</p>	<ul style="list-style-type: none"> ☐ Completed LEED form ☐ Copy of IAQ Mgmt. Plan ☐ Description of the methods by which absorptive materials (installed or stored on-site) were protected from moisture damage during the construction and preoccupancy phases. ☐ Word doc w/ Min. 18 annotated construction photos taken on 3 different dates documenting implementation of the plan (ducts covered w/ plastic, absorptive materials protected).
<p>IEQ Credit 4 Indoor Air Quality Assessment</p>	<ul style="list-style-type: none"> ☐ Completed LEED form confirming all interior finishes, furnishings and major VOC punch items were installed and complete before beginning flush-out or air testing. ☐ Description of flush out procedure including flush-out dates, outdoor air delivery rates, internal temperature, and relative humidity. ☐ Manufacturer's cut highlighting the Minimum Efficiency Reporting Value (MERV) for filtration media installed at return air grilles during construction if permanently installed air handling units are used during construction. ☐ Manufacturer's cut sheets highlighting the MERV value for final filtration media in air handling units.

	<p>OR, if doing Air Testing</p> <ul style="list-style-type: none"> ☐ Describe the project's pre-occupancy air testing process, including: <ul style="list-style-type: none"> · Test date(s), testing protocols, and scope · Sampling locations with respect to floor area, size, and ventilation system · Any corrective measures implemented or project-specific special considerations, as applicable
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1.8 SUBSTITUTIONS

- A. Substitution requests for product types specified or indicated in the Contract Documents are also governed by this Section and shall meet the minimum requirements specified herein. Substitution requests shall require documentation indicating compliance with the relevant requirements specified in this Section.
- B. For products where compliance with specified IAQ, Materials Transparency requirements may not be possible, alternative IAQ solutions shall be developed by the Contractor and approved by Architect before being implemented.

1.9 QUALITY ASSURANCE

- A. LEED Coordinator: Engage an experienced LEED-Accredited Professional to coordinate LEED requirements. LEED coordinator may also serve as waste management coordinator.

PART 2 - PRODUCTS

2.1 SUSTAINABLE SITES CREDITS

- A. SSc5 Heat Island Reduction Non-roof and Roof Measures:
 1. Paving: Use paving materials with a three-year aged solar reflectance (SR) value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.
 2. Roof: Use roofing materials with a three-year aged SRI of 64. Meet the three-year aged SRI value. If three-year aged value information is not available, use materials with an initial SRI of at least 82 at installation.

2.2 MATERIALS AND RESOURCES CREDITS

- A. MRc2 Building Product Disclosure and Optimization - Environmental Product Declarations

1. At least 20 different products from at least five different manufacturers shall have Environmental Product Declarations that comply with LEED requirements.
- B. MRc3 Building Product Disclosure and Optimization - Sourcing of Raw Materials
 1. At least 25 percent, by cost, of the permanently installed products for the Project shall comply with LEED requirements for material ingredient optimization.
- C. MRc4 Building Product Disclosure and Optimization - Material Ingredients
 1. At least 20 different products from at least five different manufacturers shall comply with LEED requirements for material ingredient reporting.

2.3 IEQC2 LOW-EMITTING MATERIALS CREDITS

- A. Field-Applied Interior Paints & Coatings
 1. All products shall be CDPH Standard Method v1.1 (or later) compliant, and shall meet the applicable VOC limits of the California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011 as follows:
 2. SCAQMD Rule 1113: For field applications that are inside the weatherproofing system, paints and coatings shall comply with the following VOC content limits when calculated as required in Rule 1113 as amended September 2013:
 - a. Flat Paints and Coatings: 50 g/L.
 - b. Non-flat Paints and Coatings: 150 g/L.
 - c. Primers, Sealers, and Undercoaters: 200 g/L.
 - d. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
 - e. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
 - f. Pretreatment Wash Primers: 420 g/L.
 - g. Clear Wood Finishes, Varnishes: 350 g/L.
 - h. Clear Wood Finishes, Lacquers: 550 g/L.
 - i. Floor Coatings: 100 g/L.
 - j. Shellacs, Clear: 730 g/L.
 - k. Shellacs, Pigmented: 550 g/L.
 - l. Stains: 250 g/L.
 3. California Air Resources Board Suggested Control Measures (CARB SCM), Table 1: For field applications that are inside the weatherproofing system, paints and coatings shall comply with the following VOC content limits when calculated as required by the SCM:
 - a. Flat Coatings: 50 g/L.
 - b. Non-flat Coatings: 100 g/L.
 - c. Non-flat – High Gloss Coatings: 150 g/L.
 - d. Wood Coatings: 275 g/L.
 - e. Floor Coatings: 100 g/L.
 - f. Primers, Sealers and Undercoaters: 100 g/L.
 - g. Stains: 250 g/L.
 - h. Concrete/Masonry Sealers: 100 g/L.
 4. Field-Applied Interior Adhesives, Mastics, Glues & Sealants

- a. All products shall meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168 as follows:
 - 1) Wood Glues: 30 g/L.
 - 2) Metal-to-Metal Adhesives: 30 g/L.
 - 3) Adhesives for Porous Materials (Except Wood): 50 g/L.
 - 4) Subfloor Adhesives: 50 g/L.
 - 5) Plastic Foam Adhesives: 50 g/L.
 - 6) Carpet Adhesives: 50 g/L.
 - 7) Carpet Pad Adhesives: 50 g/L.
 - 8) VCT and Asphalt Tile Adhesives: 50 g/L.
 - 9) Cove Base Adhesives: 50 g/L.
 - 10) Gypsum Board and Panel Adhesives: 50 g/L.
 - 11) Rubber Floor Adhesives: 60 g/L.
 - 12) Ceramic Tile Adhesives: 65 g/L.
 - 13) Multipurpose Construction Adhesives: 70 g/L.
 - 14) Fiberglass Adhesives: 80 g/L.
 - 15) Contact Adhesive: 80 g/L.
 - 16) Structural Glazing Adhesives: 100 g/L.
 - 17) Wood Flooring Adhesive: 100 g/L.
 - 18) Structural Wood Member Adhesive: 140 g/L.
 - 19) Special-Purpose Contact Adhesive: 250 g/L.
 - 20) Top and Trim Adhesive: 250 g/L.
 - 21) Adhesive Primer for Plastic: 550 g/L.
 - 22) Aerosol Adhesive, General-Purpose Mist Spray: 65 percent by weight.
 - 23) Aerosol Adhesive, General-Purpose Web Spray: 55 percent by weight.
 - 24) Special-Purpose Aerosol Adhesive (All Types): 70 percent by weight.
 - 25) Other Adhesives: 250 g/L.
 - 26) Architectural Sealants: 250 g/L.
 - 27) Other Sealants: 420 g/L.
 - 28) Sealant Primers for Nonporous Substrates: 250 g/L.
 - 29) Sealant Primers for Porous Substrates: 775 g/L.
 - 30) Other Sealant Primers: 750 g/L.
- B. Resilient Flooring Systems and Flooring Adhesive:
 1. All products shall be Resilient Floor Covering Institute (RFCI) FloorScore Certified, CDPH Standard Method v1.1-2010 (or later) compliant, and shall meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.
- C. Carpet Flooring Systems, Cushion and Flooring Adhesive
 1. All products shall be Carpet and Rug Institute (CRI) Green Label Plus Certified, CDPH Standard Method v1.1-2010 (or later) compliant, and shall meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.
- D. Composite Wood and Agrifiber Products

1. Composite wood, as defined by the California Air Resources Board, Airborne Toxic Measure to Reduce Formaldehyde Emissions from Composite Wood Products Regulation, must be documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.
- E. Wall Material, Ceiling Materials, Thermal Insulation, and Acoustic Insulation
1. All products shall be Green Label Plus Certified, CDPH Standard Method v1.1-2010 (or later) compliant, and shall meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

- A. IEQc4 Construction Indoor Air Quality Management
1. During construction, meet or exceed recommended control measures of ANSI/SMACNA 008-2008, Chapter 3.
 2. Protect stored on-site and installed absorptive materials from moisture damage.
 3. If permanently installed air handlers are used during construction, filtration media with a minimum efficiency reporting value (MERV) of 8 must be used at each return air grille, as determined by ASHRAE Standard 52.2-1999 (with errata but without addenda). Replace all filtration media immediately prior to occupancy.
- B. IEQc4 Indoor Air Quality Flush-out
1. Perform building flush-out as follows:
 - a. After construction ends, prior to occupancy and with interior finishes installed, perform a building flush-out by supplying a total volume of 14000 cu. ft. of outdoor air per sq. ft. of floor area while maintaining an internal temperature of at least 60 degrees Fahrenheit and no higher than 80 degrees Fahrenheit and a relative humidity no higher than 60 percent. OR
 - b. If occupancy is desired prior to flush-out completion, the space may be occupied following delivery of a minimum of 3500 cu. ft. of outdoor air per sq. ft. of floor area to the space. Once a space is occupied, it must be ventilated at a minimum rate of 0.30 cfm per sq. ft. of outside air or design minimum outside air rate determined in Prerequisite EQ 1, whichever is greater. During each day of flush-out period, ventilation must begin a minimum of three hours prior to occupancy and continue during occupancy. These conditions must be maintained until a total of 14000 cu. ft./sq. ft. of outside air has been delivered to the space.
- C. IEQc4 Indoor Air Quality Testing
1. Perform building air testing as follows:
 - a. After construction ends and before occupancy, but under ventilation conditions typical for occupancy, conduct baseline IAQ testing using protocols consistent with the methods listed in Table 1 for all occupied spaces. Use current versions of ASTM standard methods, EPA compendium methods, or ISO methods, as indicated. Laboratories that conduct the tests for chemical analysis of formaldehyde and volatile organic compounds must be

accredited under ISO/IEC 17025 for the test methods they use. Retail projects may conduct the testing within 14 days of occupancy.

- b. Pollutant thresholds as follows:
 - 1) Formaldehyde: 27 ppb ASTM D5197; EPA TO- 11 or EPA Compendium Method IP-6 ISO 16000-3
 - 2) Particulates: (PM10 for all buildings; PM2.5 for buildings in EPA nonattainment areas, or local equivalent) PM10: 50 micrograms per cubic meter PM2.5: 15 micrograms per cubic meter EPA Compendium Method IP-10 ISO 7708
 - 3) Ozone: (for buildings in EPA nonattainment areas) 0.075 ppm ASTM D5149 - 02 ISO 13964
 - 4) Total volatile organic compounds (TVOC s): 500 micrograms per cubic meter EPA TO-1, TO-15, TO-17, or EPA Compendium Method IP-1 ISO 16000-6
 - 5) Target chemicals listed in CDPH Standard Method v1.1, Table 4- 1, except formaldehyde: CDPH Standard Method v1.1–2010, Allowable Concentrations, Table 4-1 ASTM D5197; EPA TO-1, TO-15, TO-17 ISO 16000-3, 16000-6
 - 6) Carbon monoxide (CO): 9 ppm; no more than 2 ppm above outdoor levels EPA Compendium Method IP-3 ISO 4224

3.2 APPENDIX: REFERENCES AND RESOURCES

- A. Airborne Toxic Control Measure (ATCM) 93120-93120.12, Title 17, California Code of Regulations.
- B. American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)
 1. ASHRAE Standard 52.2: Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size (ANSI Approved) for defining Minimum Efficiency Reporting Value (MERV).
 - a. Minimum efficiency Reporting Value (MERV) of 8 for filtration media.
 - b. Minimum efficiency Reporting Value (MERV) of 13 for filtration media.
 2. ASHRAE Standard 62.1: Ventilation for Acceptable Indoor Air Quality (ANSI Approved).
 - a. Sections 4 through 7.
 - b. Definition of minimum outdoor air rate.
- C. ASTM International (ASTM)
 1. ASTM D1356: Standard Terminology Relating to Sampling and Analysis of Atmospheres.
 2. ASTM D5116: Guide for Small Scale Environmental Chamber determination of Organic Emissions from Indoor Materials/Products.
 3. ASTM D5197: Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology).
 4. ASTM D6329: Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers.
 5. ASTM D6345: Standard Guide for Selection of Methods for Active, Integrative Sampling of Volatile Organic Compounds in Air.
 6. ASTM D6670: Standard Practice for Full-Scale Chamber Determination of Volatile Organic Emissions from Indoor Materials/Products.
 7. ASTM D6886: Standard Test Method for Determination of the Individual Volatile Organic Compounds (VOCs) in Air-Dry Coatings by Gas Chromatography

8. ASTM D7339: Standard Test Method for Determination of Volatile Organic Compounds Emitted from Carpet using a Specific Sorbent Tube and Thermal Desorption / Gas Chromatography.
 9. ASTM E2114: Standard Terminology for Sustainability Relative to the Performance of Buildings.
- D. Cal/EPA, California Air Resources Board (CARB)
1. Airborne Toxic Control Measure (ATCM) for formaldehyde in composite wood products: <http://www.arb.ca.gov/toxics/compwood/compwood.htm>
 2. Architectural and Industrial Coatings Program (AIM) – 2007 Suggested Control Measure (SCM), 2008: <http://www.arb.ca.gov/coatings/arch/docs.htm>
 3. Toxic Air Contaminants (TACs). Current version of list is accessible at <http://www.arb.ca.gov/toxics/id/taclist.htm>
 4. CALGreen: 2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11.
 - a. Current version of code is accessible at <https://law.resource.org/pub/us/code/bsc.ca.gov/>
- E. California Department of Public Health (CDPH), CDPH/EHLB/Standard Method V1.1: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 (Emission Testing Method for California Specification 01350); accessible at <http://www.cal-iaq.org/separator/voc/standard-method>
- F. Carpet and Rug Institute (CRI): Green Label Plus Certification for carpet and carpet cushion; accessible at <http://www.carpet-rug.org/>
- G. Cradle to Cradle Products Innovation Institute: Cradle to Cradle (C2C) Certified Products Program; accessible at <http://www.c2ccertified.org/product-certification/c2ccertified-product-standard>
- H. GreenSeal; accessible at <http://www.greenseal.org/FindGreenSealProductsAndServices.aspx>
1. Green Seal Standard GS-11, Paints and Coatings.
 2. Green Seal Standard GS-36, Adhesives for Commercial Use.
 3. Green Seal Standard GS-42, Commercial and Institutional Cleaning Services.
 4. Green Seal Standard GS-49, Residential Cleaning Services.
- I. GreenScreen for Safer Chemicals: Method for chemical hazard assessment; accessible at <http://www.greenscreenchemicals.org/>
- J. Health Product Declaration Collaborative; Health Product Declaration (HPD) Standard Version 1.0; accessible at <http://hpdcollaborative.org>
- K. International Green Construction Code (IgCC); accessible at <http://www.iccsafe.org/CS/IGCC/Pages/default.aspx>
- L. International Living Futures Institute (ILFI); accessible at <http://living-future.org/lbc>.
1. Living Building Challenge (LBC) Standard 3.0, 2014.
 2. Material Petals Handbook, 2013

3. Declare, The Ingredients Label for Building Products; accessible at www.declareproducts.com.
- M. International Organization for Standardization (ISO)
1. ISO 14021:2001. Environmental labels and declarations. Self-declared environmental claims (Type II environmental labeling).
 2. ISO 16000-9:2006. Indoor Air - Part 9: Determination of the Emission of Volatile Organic Compounds from Building Products and Furnishing - Emission Test Chamber Method.
 3. ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories.
 4. ISO/IEC 17065: 2012 Conformity Assessment – Requirements for Bodies Certifying Products, Processes and Services
 5. ISO/IEC Guide 65:1996 General Requirements for Bodies Operating Product Certification Systems.
- N. Resilient Floor Covering Institute (RFCI): FloorScore emissions criteria and testing method for hard surface flooring and flooring adhesives; accessible at SCS Global Services website <http://www.scsglobalservices.com/floorscore>
- O. Sheet Metal and Air Conditioning Contractors National Association (SMACNA): IAQ Guidelines for Occupied Buildings Under Construction, 2nd Edition 2007, ANSI/ SMACNA 008-2008 (Chapter 3).
- P. South Coast Air Quality Management District (SCAQMD)
1. SCAQMD Rule 1113, Architectural Coatings: VOC limits for AIM paints and coatings; accessible at: <http://www.aqmd.gov/rules/reg/reg11/r1113.pdf>
 2. SCAQMD Rule 1168, Adhesive and Sealant Applications: VOC limits for primers, adhesives, sealants, and sealant and other primers; accessible at: <http://www.arb.ca.gov/drdb/sc/curhtml/r1168.pdf>
- Q. US Environmental Protection Agency (EPA)
1. 40 CFR 59, Subpart D, Method 24, Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings; accessible at <http://www.epa.gov/ttnemc01/promgate/m-24.pdf>
 2. Environmentally Preferable Purchasing Guidelines for Cleaning Agents; accessible at <http://www.epa.gov/opptintr/epp/pubs/cleaning.htm>
- R. US Green Building Council (USGBC)
1. Leadership in Energy and Environmental Design (LEED) v4 Reference Guide for Building Design and Construction (BD+C), 2013 Edition; accessible at <http://www.usgbc.org/leed/v4>

END OF SECTION 01 8113

LEED v4 for BD+C: New Construction and Major Renovation				Project Name: Hayward Fire Training Center			
Project Checklist				Date: 07/16/19			
Y	?	N		Y	?	N	
1	0	0	D Credit Integrative Process (Group) 1				
4	2	10	Location and Transportation 16	4	1	8	Materials and Resources 13
0	0	16	D Credit 1 LEED for Neighborhood Development Location (Group) 16	Y			D Prereq 1 Storage and Collection of Recyclables (Group) Required
1	0	0	D Credit 2 Sensitive Land Protection (Group) 1	Y			C Prereq 2 Construction and Demolition Waste Management Planning (Group) Required
0	2	0	D Credit 3 High Priority Site (Group) 2	0	0	5	D Credit 1 Building Life-Cycle Impact Reduction (Group) 5
2	0	3	D Credit 4 Surrounding Density and Diverse Uses (Group) 5	1	0	1	C Credit 2 Building Product Disclosure and Optimization - Environmental Product Declarations (Group) 2
0	0	5	C Credit 5 Access to Quality Transit 5	0	1	1	C Credit 3 Building Product Disclosure and Optimization - Sourcing of Raw Materials (Group) 2
0	0	1	D Credit 6 Bicycle Facilities (Group) 1	1	0	1	C Credit 4 Building Product Disclosure and Optimization - Material Ingredients (Group) 2
0	0	1	D Credit 7 Reduced Parking Footprint (Group) 1	2	0	0	C Credit 5 Construction and Demolition Waste Management (Group) 2
1	0	0	D Credit 8 Green Vehicles (Group) 1				
5	3	2	Sustainable Sites 10	9	2	5	Indoor Environmental Quality 16
Y			C Prereq 1 Construction Activity Pollution Prevention (Group) Required	Y			D Prereq 1 Minimum Indoor Air Quality Performance Required
1	0	0	D Credit 1 Site Assessment (Group) 1	Y			D Prereq 2 Environmental Tobacco Smoke Control (Group) Required
0	0	2	D Credit 2 Site Development - Protect or Restore Habitat (Group) 2	2	0	0	D Credit 1 Enhanced Indoor Air Quality Strategies 2
1	0	0	D Credit 3 Open Space (Group) 1	3	0	0	D Credit 2 Low-Emitting Materials (Group) 3
2	1	0	D Credit 4 Rainwater Management (Group) 3	1	0	0	C Credit 3 Construction Indoor Air Quality Management Plan (Group) 1
0	2	0	C Credit 5 Heat Island Reduction (Group) 2	1	1	0	C Credit 4 Indoor Air Quality Assessment 2
1	0	0	D Credit 6 Light Pollution Reduction (Group) 1	0	0	1	D Credit 5 Thermal Comfort 1
				1	0	1	D Credit 6 Interior Lighting (Group) 2
				0	0	3	D Credit 7 Daylight 3
				0	1	0	D Credit 8 Quality Views 1
				1	0	0	D Credit 9 Acoustic Performance 1
5	0	6	Water Efficiency 11	6	0	0	Innovation 6
Y			D Prereq 1 Outdoor Water Use Reduction (Group) Required	5	0	0	D Credit 1 Exem. Perf. EAc5; IEQc1; see Responsibility Matrix for other strategies 5
Y			D Prereq 2 Indoor Water Use Reduction Required	1	0	0	C Credit 2 LEED Accredited Professional 1
Y			D Prereq 3 Building-Level Water Metering Required				
1	0	1	D Credit 1 Outdoor Water Use Reduction (Group) 2				
3	0	3	D Credit 2 Indoor Water Use Reduction 6				
0	0	2	D Credit 3 Cooling Tower Water Use (Group) 2				
1	0	0	D Credit 4 Water Metering 1				
26	0	7	Energy and Atmosphere 33	1	2	1	Regional Priority 4
Y			C Prereq 1 Fundamental Commissioning and Verification Required	0	1	0	D Credit 1 Regional Priority Credit: Rainwater Mgmt 3 points 1
Y			D Prereq 2 Minimum Energy Performance Required	1	0	0	D Credit 2 Regional Priority Credit: Optimize Energy Performance Required Point threshold 10 points 1
Y			D Prereq 3 Building-Level Energy Metering Required	0	1	0	D Credit 3 Regional Priority Credit: MR 3, BPD0- Sourcing of Raw Materials Option 2 1
Y			D Prereq 4 Fundamental Refrigerant Management Required	0	0	1	D Credit 4 Regional Priority Credit: Indoor Water Use Reduction 4 points 1
3	0	3	C Credit 1 Enhanced Commissioning (Group) 6				
18	0	0	D Credit 2 Optimize Energy Performance (Group) 18				
1	0	0	D Credit 3 Advanced Energy Metering 1				
0	0	2	D Credit 4 Demand Response (Group) 2				
3	0	0	D Credit 5 Renewable Energy Production (Group) 3				
1	0	0	D Credit 6 Enhanced Refrigerant Management 1				
0	0	2	D Credit 7 Green Power and Carbon Offsets (Group) 2				
61	10	39	TOTALS				Possible Points: 110
Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110							

SECTION 01 8113A - RECYCLED CONTENT CERTIFICATION FORM

This form is to be completed by a Corporate Officer of the Product Manufacturer for the General Contractor. The General Contractor must return the certification, completed for each product with recycled content as required by specific Specification Sections. Attach additional sheets if necessary.

<p>GENERAL CONTRACTOR</p> <p>Name:</p> <p>Address:</p> <p>Telephone, fax, e-mail:</p>	<p>SUBCONTRACTOR/INSTALLER</p> <p>Name:</p> <p>Address:</p> <p>Telephone, fax, e-mail:</p>	<p>PRODUCT MANUFACTURER</p> <p>Name:</p> <p>Address:</p> <p>Telephone, fax, e-mail:</p>
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Item #	Product Description	Product CSI section number	Quantity Bid	Unit of measure	Value of materials (Excluding installation labor, Contractor's mark-up)	Weight in pounds	% Post-consumer "A"	% Post-industrial, Pre-consumer "B"	% LEED Recycled "A" + 1/2 x "B"	Value of LEED Recycled Content
							Based on percentage of total weight			
					\$				\$	
					\$				\$	
					\$				\$	
					\$				\$	
					\$				\$	
Subtotal					\$				\$	

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SECTION 01 8113B - REGIONAL MATERIALS CONTENT CERTIFICATION FORM

This form is to be completed by a Corporate Officer of the Product Manufacturer for the General Contractor. The General Contractor must return the certification, completed for each product with regional materials content as required by specific Specification Sections. Attach additional sheets if necessary.

<p>GENERAL CONTRACTOR</p> <p>Name:</p> <p>Address:</p> <p>Telephone, fax, e-mail:</p>	<p>SUBCONTRACTOR/INSTALLER</p> <p>Name:</p> <p>Address:</p> <p>Telephone, fax, e-mail:</p>	<p>PRODUCT MANUFACTURER</p> <p>Name:</p> <p>Address:</p> <p>Telephone, fax, e-mail:</p>
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Item #	Product Description	Product CSI section number	Quantity Bid	Unit	Value of Materials (Excluding installation labor, Contractor's mark-up)	Weight in pounds	Regional Material Manufacturing Location	Regional Material Point of Extraction, Harvest, Recovery	% of Regional Material Content in Weight	Value of Regional Material Content
							Must Be within 500 Miles Radius from Project Location			
					\$					\$
					\$					\$
					\$					\$
Subtotal					\$					\$

Printed Name: (a corporate officer)

Title

Date

Signature

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SECTION 01 8119 - INDOOR AIR QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. This Section specifies Indoor Air Quality (IAQ) management procedures during construction, in compliance with CCR Title 24, Part 11: 2013 California Green Building Standards Code (CALGreen Code).
- B. Contractor shall develop procedures and maintain the project site to eliminate and mitigate potential sources of indoor air pollutants to enhance the indoor air quality of the project site and the finished, occupied building.

1.3 RELATED SECTIONS

- A. Section 01 3100 - Project Management and Coordination: Meetings and project documentation.
- B. Section 01 8113 - Sustainable Design Requirements: General requirements and procedures for compliance with 2016 California Green Building Standards Code (CALGreen Code), including July 2016 Amendments and LEED NC 2009.
- C. Section 01 8121 – Environmental Impact of Materials: Manufacturer's data shall be supplied for products, including content and outgassing of emissions.
- D. Section 01 8419 – Interior Finish Performance Requirements: Sequencing of installation of finish materials during construction to avoid IAQ contamination of building systems.
- E. Section 01 7900 – Demonstration and Training.

1.4 DEFINITIONS

- A. Definitions: Pertaining to sustainable development, as defined in ASTM E 2114.
- B. Adequate Ventilation: Ventilation, including air circulation and air changes, required to cure materials, dissipate humidity, and prevent accumulation of particulates, dust, fumes, vapors, or gases.
- C. Hazardous Materials: Any material that is regulated as a hazardous material in accordance with 49 CFR 173, requires a Material Safety Data Sheet (MSDS) in accordance with 29 CFR 1910.1200, or which during end use, treatment, handling, storage, transportation or disposal meets or has components which meet or have the potential to meet the definition of a Hazardous Waste in accordance with 40 CFR 261. Throughout this specification, hazardous material includes hazardous chemicals.
 - 1. Hazardous materials include: pesticides, biocides, and carcinogens as listed by recognized authorities, such as the Environmental Protection Agency (EPA) and the International Agency for Research on Cancer (IARC).

- D. Indoor Air Quality (IAQ): The composition and characteristics of the air in an enclosed space that affect the occupants of that space. The indoor air quality of a space refers to the relative quality of air in a building with respect to contaminants and hazards and is determined by the level of indoor air pollution and other characteristics of the air, including those that impact thermal comfort such as air temperature, relative humidity and air speed.
- E. Interior Final Finishes: Materials and products that will be exposed at interior, occupied spaces; including flooring, wallcovering, finish carpentry, and ceilings.
- F. Packaged Dry Products: Materials and products that are installed in dry form and are delivered to the site in manufacturer's packaging; including carpets, resilient flooring, ceiling tiles, and insulation.
- G. Wet Products: Materials and products installed in wet form, including paints, sealants, adhesives, special coatings, and other materials which require curing.

1.5 SUBMITTALS

- A. Indoor Air Quality (IAQ) Management Plan: Prepare and submit IAQ Management Plan demonstrating compliance with CCR Title 24, Part 11: 2016 California Green Building Standards Code (CALGreen Code), including July 2016 Amendments and LEED NC 2009 EQ credit 3.1 and 3.2.
 - 1. Confirm whether permanently installed air handling equipment was used during construction
 - 2. Submit product data for temporary filtration media and filtration media used during occupancy (include manufacturer, model #, MERV rating, and location of installed filter).

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 INDOOR AIR QUALITY (IAQ) MANAGEMENT

- A. Indoor Air Quality (IAQ) Management: Contractor shall manage and protect indoor air quality, including performance of the following:
 - 1. During construction meet or exceed the recommended Control Measures of the Sheet Metal and Air Conditioning Contractors National Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 1995, Chapter 3.
 - a. Minimize accumulation of dust and debris which may become airborne and infiltrate the heating, ventilating and air conditioning system.
 - b. Conduct thorough progress and final completion cleaning to remove dust from interior surfaces.
 - 2. Protect stored on-site or installed absorptive materials from moisture damage, including materials such as insulation, carpeting, ceiling tile and gypsum wallboard. Coordinate with requirements for temporary dust and debris barriers specified in Section 01 5000 - Temporary Facilities and Controls.
 - 3. Protect from intrusion by dust, water and debris all heating, ventilating and air conditioning equipment, ductwork and other related air distribution component openings by closing all openings with tape, durable plastic sheeting, sheet metal or other methods as acceptable to Authority Having Jurisdiction (AHJ). Provide protection during shipping and handling, storage on the construction site, installation and operational adjustments and testing, until final startup.

4. If permanently installed air handlers are used during construction, filtration media with a Minimum Efficiency Reporting Value (MERV) of at least 8 shall be used at each return air grille, as determined by ASHRAE 52.2-1999
5. Replace all filtration media immediately prior to Completion review.
6. Prohibit smoking inside the building and within 25 feet of building entrances once the building is closed-in.
7. Photo document IAQ construction activities such as covered materials, covering of duct openings and other important IAQ management activities.
8. Comply with LEED EQ Credit 3.2 requirements either using Option 1 building flush-out or Option 2 air quality sampling as detailed in Section 01 8113 Sustainable Design Requirements.

END OF SECTION 01 8119

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SECTION 01 8121 – ENVIRONMENTAL IMPACT OF MATERIALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Objectives: To obtain acceptable Indoor Air Quality (IAQ) for the completed project and minimize the environmental impacts of the construction and operation, the Contractor during the construction phase of this project shall implement the following procedures singly or in combination:
 - 1. Select products that minimize consumption of non-renewable resources, consume reduced amounts of energy, and minimize amounts of pollution to produce, and employ recycled and/or recyclable materials. Obtain Owner Representative's approval of all materials listed in Part 2 prior to placing the order with the manufacturer of the material.
 - 2. Maintain a materials log book and verification that materials used have been reviewed for environmental considerations as outlined in this Section.
 - 3. Control sources of potential IAQ pollutants by controlled selection of materials and processes used in project construction in order to attain acceptable IAQ as defined in this section.
- B. Products and processes that achieve the above objectives to the extent currently possible and practical have been selected and shown in the Contract Documents. The Contractor is responsible to maintain and support these objectives in developing means and methods for performing the work of this Contract and in proposing product substitutions and/or changes to specified processes.

1.3 RELATED SECTIONS

- A. Section 01 7419 - Construction Waste Management: Administrative and procedural requirements for salvaging, recycling, and disposing of demolition and construction waste.
- B. Section 01 8113 – Sustainable Design Requirements: LEED requirements.
- C. Section 01 8119 - Indoor Air Quality Requirements: Product emission testing procedures.
- D. Section 01 8419 – Interior Finish Performance Requirements: Sequencing of installation of finish materials during construction to avoid IAQ contamination of building systems.
- E. Division 23 Section "Testing, Adjusting, and Balancing": Baseline testing for Indoor Air Quality and duct cleaning requirements.

1.4 SUBMITTALS

- A. Submit the following in accordance with Conditions of the Contract and Division 1 specification sections.

1. **Materials Log:** Maintain a notebook with sectional dividers for each material specification listed in Part 2 of this Section. Each divider shall be labeled with the specification section number and shall record the VOC content as specified in Table 2.1, the recycled content as specified in Table 2.2, and other environmental specifications of the material such as identified in Part 2 below. The section will also include the Manufacturer's Safety Data Sheet (MSDS), product label and/or manufacturer's data verifying conformance with the environmental specifications, and shall identify in general terms where the product is to be used in the building. This notebook shall be maintained weekly as materials are ordered, shall be accessible to the Owner's Representative at all times, and submitted in bound form as part of the project requirements specified in Division 1 "Project Closeout Section".

1.5 QUALITY ASSURANCE

- A. **General:** Perform the work of this Section as a supplement and in accordance with applicable requirements of Division 1 "Contractor Quality Control Program".
- B. As part of the Coordination and Mutual Understanding Meeting specified in Division 1 "Contractor Quality Control Program", and prior to the start of construction, discuss the IAQ and environmental impact compliances required by this Contract. The purpose of this agenda item is to develop a mutual understanding of the IAQ and environmental impact program requirements, and coordination of the Contractor's management of the program with the Contracting officer and the Construction Quality Manager.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. **General:** The following special IAQ and environmental impact requirements apply to materials specified in their respective technical specification sections of this Project Manual. See Tables 2.1 and 2.2 for definitions of low VOC content and recycled content.
- B. **Division 03 - Concrete:**
 1. **Cast-in-Place Concrete:**
 - a. Per FAR, cement must include 20 percent fly ash.
 - b. Reinforcing steel shall maximize recycled scrap steel content.
 - c. Form release agents shall be low VOC content.
 - d. Liquid membrane-forming curing and sealing compound shall be low VOC content.
 2. **Structural Precast Concrete:**
 - a. Cement for all precast with standard finish shall include 20 percent fly ash content.
 - b. Form release agent shall be low VOC content.
 - c. Reinforcing bars shall maximize recycled steel content.
 3. **Architectural Precast Concrete:**
 - a. Form release agent shall be low VOC content.
 - b. Reinforcing bars shall maximize recycled steel content.
- C. **Division 04 - Masonry:**
 1. **Concrete Unit Masonry:**
 - a. Concrete Unit Masonry shall maximize the use of recycled materials.
 - b. Reinforcing bars shall maximize the use of recycled steel.

- D. Division 05 - Metals:
1. Structural Steel: Framing steel shall maximize the use of recycled steel.
 2. Ornamental Handrails and Railings: Wood cap originates from a sustainably managed forest certified by a Forest Stewardship Council (FSC) accredited certification group such as Smartwood, Scientific Certification Systems (SCS), or other independent forest management certification agency.
- E. Division 06 – Wood, Plastics, and Composites: Wood products:
1. Each specified solid and veneer wood species must originate from a sustainably managed forest certified by a Forest Stewardship Council (FSC) accredited certification group such as Smartwood or Scientific Certification Systems (SCS).
 2. Fiberboard used as blocking, millwork, casework substrate, underlay and door cores must be urea-formaldehyde free, and not exceed ANSI A208.1-1993 emission standard of 0.20 ppm of formaldehyde.
 3. Structural fiberboard (OSB, MDF, and particleboard) shall maximize post-consumer waste material.
 4. Plastic laminates will be installed with water-based, formaldehyde free, low VOC (volatile organic compound) adhesives.
 5. Millwork and casework adhesives will be water-based, formaldehyde free, low VOC adhesives.
 6. Transparent wood finish systems shall utilize only waterborne acrylic sealers and finish coats.
 7. Use of chromated copper arsenate (CCA) as a wood treating material is not permitted; use of ammonium copper quat (ACQ) is acceptable.
 8. Cast Resin Countertops: Silicone sealants shall be water-based low VOC silicone sealant.
- F. Division 07 - Thermal and Moisture Protection:
1. Garage Deck Sealer: Silane sealer will be low VOC.
 2. Building Insulation:
 - a. Insulation materials manufactured using chlorofluorocarbons (CFCs) shall not be used. (CFCs have been completely phased out of U. S. manufactured insulation products.)
 - b. Extruded polystyrene insulation shall not be manufactured with chlorofluorocarbon (CFC) blowing agent and shall maximize recycled content.
 - c. Fiberglass batt insulation, fiberglass board insulation, and mineral wool insulation shall maximize use of recycled material.
 - d. Mineral wool fire safing insulation shall maximize recycled material.
 3. Single-Ply Membrane Roofing: Rigid insulation manufactured with chlorofluorocarbon (CFC) blowing agents shall not be used.
 4. Joint Sealants:
 - a. Interior sealants shall not contain: mercury, butyl rubber, neoprene, SBR (styrene butadiene rubber), or nitrile.
 - b. Silicone sealants shall be low VOC content.
 - c. Polyurethane sealants containing mercury shall not be used.
 - d. Compressible foam joint fillers, polyester polyurethane foam impregnated with neoprene rubber or acrylic ester styrene copolymer used in this facility shall not be manufactured with CFC blowing agents.
 - e. Sealants formulated with aromatic solvents (organic solvent with a benzene ring in its molecular structure) fibrous talc or asbestos, formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium, or their components shall not be used.

- G. Division 08 – Openings:
1. Flush Wood Doors: Fiberboard used as door cores shall meet the requirements of ANSI A208.1-1993 for particleboard, including the requirement to meet a threshold of less than 0.30 ppm of formaldehyde using test method ASTM E1333.
 2. Glass and Glazing:
 - a. Sealants and glazing compounds shall be low VOC content.
 - b. Sealants and glazing compounds formulated with aromatic solvents (organic solvent with a benzene ring in its molecular structure), fibrous talc or asbestos, formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium, or their components will not be used.
- H. Division 09 - Finishes:
1. Gypsum Drywall:
 - a. Gypsum board must contain recycled or synthetic gypsum. Facing paper shall be manufactured from recycled newsprint including post-consumer waste.
 - b. Glass fiber sound attenuation blanket insulation shall maximize recycled material.
 - c. Joint compound shall be low VOC content.
 - d. Multi-layer gypsum board applications shall be screw attached and not laminated with adhesives.
 - e. Provide for thorough cleaning and removal of all silica/gypsum dust upon completion of gypsum drywall installations, including, but not necessarily limited to, all components in plenum spaces, including tops of pipes and sills, and insides and outsides of ducts (as required in Division 15).
 - f. Only paper joint tape (no fiberglass tape) will be used.
 - g. Mineral fiber sound attenuation blankets shall maximize recovered material.
 - h. Steel studs, runners, and channels for framing shall maximize recycled steel content.
 2. Acoustic Panel Ceilings:
 - a. Ceiling panels shall maximize use of recycled material, and be finished with water-based low VOC paint.
 - b. Suspension systems shall maximize recycled material.
 3. Resilient Tile Flooring:
 - a. Rubber floor tiles shall maximize recycled materials.
 - b. Adhesives shall be low VOC content.
 4. Sheet Vinyl Floor Covering: Sheet vinyl floor covering shall be installed with water-based, low VOC adhesives per manufacturer's instructions.
 5. Carpet/Carpet Tile:
 - a. Carpet shall be one that is accepted in an operating recycling program which extracts component materials for reuse and/or reclaims inherent energy, and does not contribute significantly to land fill.
 - b. If an adhesive is required for installation, use low VOC carpet manufacturer recommended adhesive and install per manufacturer's recommended frame or perimeter adhesive pattern method. (Full field glue-down is not acceptable except for carpet with an integral dry film adhesive back.)
 - c. If a seam sealer is required for installation, use carpet manufacturer recommended low VOC seam sealer or recommend heat welded seaming.
 6. Paint and Polychromatic Finish Coating:
 - a. Do not use water based paints formulated with aromatic hydrocarbons (organic solvent with a benzene ring in its molecular structure), formaldehyde, halogenated solvents, mercury or mercury compounds, or tinted with pigments of lead, cadmium, chromium VI and their oxides. Water based paints shall be low VOC and shall have a flash point of 61 degrees C or greater.
 - b. Where it is necessary to use solvent-based paints, they shall be formulated for low VOC emissions and shall not be formulated with formaldehyde, halogenated solvents, mercury or mercury compounds, or tinted with pigments

- of lead, cadmium, chromium VI and their oxides, nor formulated with more than 10 percent aromatic hydrocarbons by weight.
- c. The following shall be low VOC and not be formulated with aromatic hydrocarbons (organic solvent with a benzene ring in its molecular structure) formaldehyde, halogenated solvents, mercury or mercury compounds, or tinted with pigments of lead, cadmium, chromium VI and their oxides.
 - 1) High performance water based acrylic coatings.
 - 2) Pigmented acrylic sealers.
 - 3) Catalyzed epoxy coatings.
 - 4) High performance silicone grafted epoxy coatings.
- I. Division 11 - Equipment: Not used.
- J. Division 12 - Furnishings:
 1. Countertops: Silicone sealant shall be water-based silicone sealant with low VOC content.
- K. Division 22 - Plumbing:
 1. Basic Piping Materials and Methods: Use solder that does not contain lead.
 2. Pipes and Pipe Fittings: Use solder that does not contain lead.
 3. Plumbing Fixtures: Plumbing fixtures must meet water conservation requirements of the Energy Policy Act.
- L. Division 23 – Heating, Ventilating and Air Conditioning:
 1. Basic Mechanical Materials and Methods: Use low VOC joint sealers.
 2. Mechanical Insulation: Mechanical sound insulation materials within the duct shall include an impervious, non-porous coating that prevents dust from accumulating in the insulating materials.
 3. Metal Ductwork: Use low VOC joint and seam sealants.
- M. Division 31 – Earthwork:
 1. Site Clearing: Topsoil shall be provided by the Contractor from on-site material which has been stockpiled for re-use. Off-site borrow should only be used when on-site sources are exhausted.
 2. Aggregate Base Course: Aggregate base course for on-site paved areas shall maximize use of recycled ABC.
- N. Division 32 – Exterior Improvements:
 1. Asphaltic Paving: Asphalt paving shall maximize use of recycled asphalt paving.
 2. Portland Cement Concrete Paving: Per Federal Acquisition Regulations (FAR) requirements, there will be a minimum of 20 percent fly ash content in cement.
 3. Landscaping:
 - a. All wood fiber or cellulose hydromulch shall be 100 percent recovered content.
 - b. All herbicides must be EPA approved and applied per manufacturer's instructions. All herbicide use must be approved by the Owner's Representative.
- O. Division 33 - Utilities:
 1. Underground Utilities - Basic Piping Materials and Methods: Use solder that does not contain lead.
 2. Site Potable Water Lines and Underground Chilled Water (CHW) Piping System: No solder will be used with lead content.

2.2 VOC CONTENT

- A. The following tables define VOC content levels and recycled content requirements.

Table 2.1 Definition of Low VOC Content Levels

Material or Product	Low VOC Content Level
Form Release Agents	350 g/L VOC content
Plastic Laminate Adhesive	20 g/L VOC content
Casework And Millwork Adhesives	20 g/L VOC content
Transparent Wood Finish Systems	350 g/L VOC content
Cast Resin Countertop Silicone Sealant	20 g/L VOC content
Garage Deck Sealer	600 g/L VOC content
Water Based Joint Sealants	50 g/L VOC content
Non-Water Based Joint Sealants	350 g/L VOC content
Portland Cement Plaster	20 g/L VOC content
Gypsum Drywall Joint Compound	20 g/L VOC content
Terrazzo Sealer	250 g/L VOC content
Acoustic Panel Ceiling Finish	50 g/L VOC content
Resilient Tile Flooring Adhesive	100 g/L VOC content
Vinyl Flooring Adhesives	100 g/L VOC content
Carpet Adhesive	50 g/L VOC content
Carpet Seam Sealer	50 g/L VOC content
Water-Based Paint & Polychromatic Finish Coatings	150 g/L VOC content
Solvent -Based Paint	380 g/L VOC content
High Performance Water-Based Acrylic Coatings	250 g/L VOC content
Pigmented Acrylic Sealers	250 g/L VOC content
Catalyzed Epoxy Coatings	250 g/L VOC content
High Performance Silicone	250 g/L VOC content
Casework Sealant	50 g/L VOC content
Liquid Membrane-Forming Curing & Sealing Compound	350 g/L VOC content

Table 2.2 Required Minimum Recycled Content of Materials

Material or Product	Recommended Recycle Content
Asphaltic Concrete Paving	100 percent by weight ³
Reinforcing Steel In Concrete	60 percent recycled scrap steel ¹
Reinforcing Bars In Precast Concrete	60 percent recycled steel ¹
Concrete Unit Masonry	50 percent recycled content
Reinforcing Bars In Concrete Unit Masonry	60 percent recycled steel ¹
Framing Steel	30 percent recycled steel ¹
Fiberglass Batt Insulation	20 percent recycled glass cullet ²
Fiberglass Board Insulation	20 percent recycled glass cullet ²

Mineral Wool Insulation	75 percent recycled material (slag) ²
Mineral Wool Fire Safing Insulation	75 percent recycled material by weight
Gypsum Board	10 percent recycled or synthetic gypsum
Facing Paper Of Gypsum Board	100 percent recycled newsprint including
Mineral Fiber Sound Attenuation Blankets	75 percent recovered material by weight
Steel Studs, Runners, And Channels	60 percent recycled steel ¹
Acoustic Panel Ceilings	60 percent recycled material by weight
Ceiling Suspension Systems	60 percent recycled material ¹
Rubber Floor Tiles	90-100 percent recycled materials ²
Hydromulch	100 percent recovered materials ²
Structural Fiberboard	80-100 percent recycled content ²

Notes for Table 2.2:

1. 60 percent represents the average recycled content for the U. S. steel industry. Use of U. S. manufactured steel will meet this requirement.
2. As per EPA Comprehensive Guideline for Procurement of Products Containing Recovered Materials (60 FR 21370, effective May 27, 2009).
3. As per Alameda County California Waste Management recommendations.

PART 3 - EXECUTION

3.1 GENERAL

- A. Submit to the Owner's Representative for review and approval product data such as MSDS and environmental impact data prior to ordering project materials.
- B. Prepare and maintain a Materials Log, providing information on content of materials, where specific materials are to be used, MSDS, and environmental specifications of the material. Maintain the log book weekly as materials are ordered.

3.2 FIELD QUALITY CONTROL

- A. Owner reserves the right to take samples and perform, at random, tests of approved materials delivered to the job site to verify compliance of actual materials with specifications.

END OF SECTION 01 8121

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SECTION 01 8419 – INTERIOR FINISH PERFORMANCE REQUIREMENTS**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Special construction scheduling/sequencing requirements and procedures necessary to assure achievement of designed Indoor Air Quality (IAQ) levels for the completed project required by the EPA IAQ Program.
 - 1. Scheduling: Special construction scheduling involves defined and controlled sequencing of finishes applications to ensure dissipation of emissions from finishes that off-gas significant quantities of deleterious material during curing, to separate these effects from the installation of adsorptive materials that would act as a "sink" for storage and subsequent release of these unwanted substances into building spaces and mechanical systems after project occupancy.
 - 2. Procedures: Special procedures involve provision of ventilation during construction.

1.3 RELATED SECTIONS

- A. Section 01 7419 - Construction Waste Management: Administrative and procedural requirements for salvaging, recycling, and disposing of demolition and construction waste.
- B. Section 01 8113 – Sustainable Design Requirements: LEED requirements.
- C. Section 01 8121 – Environmental Impact of Materials: Manufacturer's data shall be supplied for products, including content and outgassing of emissions.
- D. Division 23 Section "Testing, Adjusting, and Balancing": Baseline testing for Indoor Air Quality and duct cleaning requirements.

1.4 DEFINITIONS:

- A. IAQ: Indoor Air Quality as defined by the US Environmental Protection Agency.
- B. Type 1 Finishes: Materials and finishes which have a potential for short-term levels of off gassing from chemicals inherent in their manufacturing process, or which are applied in a form requiring vehicles or carriers for spreading which release a high level of particulate matter in the process of installation and/or curing. Type 1 Finishes include, but are not limited to the following:
 - 1. Composite wood products, specifically including particleboard from which millwork, wood paneling, doors or furniture may be fabricated.
 - 2. Adhesives, sealants, and glazing compounds, specifically those with petrochemical vehicles or carriers.
 - 3. Wood preservatives, finishes, and paint.
 - 4. Control and/or expansion joint fillers.
 - 5. All hard finishes requiring adhesive installation.
 - 6. Gypsum board and associated finish processes.

- C. Type 2 Finishes: "Fuzzy" materials and finishes which are woven, fibrous, or porous in nature and tend to adsorb chemicals off-gassed by Type 1 finishes or may be adversely affected by particulates. These materials become "sinks" for deleterious substances which may be released much later, or collectors of contaminants that may promote subsequent bacterial growth. Type 2 Finishes include, but are not limited to the following:
 - 1. Carpet and padding.
 - 2. Fabric wall covering.
 - 3. Insulation exposed to the airstream.
 - 4. Acoustic ceiling materials.
 - 5. Fabric covered acoustic wall panels.
 - 6. Upholstered furnishings.
- D. Materials that can be categorized as both Type 1 and Type 2 materials shall be considered to be Type 1 materials.

1.5 SUBMITTALS

- A. Supplementary Construction Schedule: Submit a schedule of construction showing compliance with requirements specified in this Section as a supplement to the schedule required by Section 01 3200.
 - 1. Show sequence of finishes applications and allowances for curing times. Within each air zone identify finishes, indicating their type classifications.
 - a. An air zone is that part of any floor area served by a single air handling unit.
 - 2. Indicate and schedule types and durations of temporary ventilations proposed. Show schedule for commissioning procedures and all temporary usages of building mechanical systems, identifying types of filtration used and schedule of filter replacement and changeouts.
- B. Material Safety Data Sheets (MSDSs): Requirements for submittal of MSDSs are specified in the individual specification sections of this Project Manual as required.

1.6 QUALITY ASSURANCE

- A. General: Perform the work of this section as a supplement to and in accordance with applicable requirements of Division 1 "Contractor Quality Control Program" section.
- B. Finishes Installation Scheduling: As part of the Coordination and Mutual Understanding Meeting, discuss the Supplementary Construction Schedule required under this section. The purpose of this agenda item is to assure understanding of the importance of sequencing of finishes to the overall Indoor Air Quality of the facility and to secure preliminary approval of the Contracting Officer for scheduling and installation requirements for on-site work.

PART 2 - PRODUCTS –NOT USED

PART 3 - EXECUTION

3.1 PREPARATION

- A. Certify in writing to the Owner's Representative that interior environmental control has been implemented as specified below and that required conditions are being maintained, and obtain approval from the Owner's Representative before starting installation of interior finishes.

- B. Coordination: The Contractor is responsible to schedule and coordinate the work of all finishes installers to assure compliance with the requirements of this specification section.

3.2 INTERIOR ENVIRONMENTAL CONTROL

- A. Provide and maintain controlled interior environment in accordance with the following requirements before beginning installation of interior finish materials in order to dilute and exhaust vapors produced by solvents and other carriers from liquid applied materials, and particulate matter from residual manufacturing chemicals contained in solid products.
- B. Supply 100 percent outside air 24 hours a day. Supply airflow at 6 air changes per hour when outside temperatures are between 55 degrees F and 85 degrees F and humidity is between 30 percent and 60 percent. Supply a minimum of 1.5 air changes per hour when conditions are not within this range. (See Division 23 "Testing, Adjusting, and Balancing for HVAC".)
 - 1. The supply air system must have filters in place. Maintain filtration of 30 percent efficiency.
 - 2. The HVAC system may be used to move both supply and return air with the following exceptions:
 - a. Permanent return air ductwork must be cleaned per National Air Duct Cleaning Association standards upon completion of all construction and finish installation work.
 - b. No recirculating air is permitted. Temporary exhaust systems may be used to exhaust air directly to the outside from the construction area.
- C. Begin construction ventilation when the building is substantially enclosed.
- D. Pre-commissioning and commissioning procedures for HVAC systems, including duct cleaning and filter replacement prior to release of the project for occupancy are specified in Division 23 sections.

END OF SECTION 01 8419

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SECTION 01 9113 – GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Owner's Project Requirements and Basis of Design documentation are included by reference for information only.

1.2 SUMMARY

- A. This section describes the scope of the formal commissioning process and the general requirements for the building systems outlined herein.
- B. Related Sections
 - 1. Section 22 0800 - Commissioning of DHW Systems
 - 2. Section 23 0800 - Commissioning of HVAC Systems and Controls.
 - 3. Section 26 0800 - Commissioning of Lighting Controls.

1.3 REFERENCES

- A. USGBC:
 - 1. LEED 2009 (v3.0) New Construction and Major Renovations Reference Guide:
 - a. EA Prerequisite 1, Fundamental Commissioning.
 - b. Credit 3, Enhanced Commissioning
- B. California Energy Commission
 - 1. Title 24, Part 6, 2013, Building Energy Efficiency Standards
- C. ASHRAE
 - 1. ASHRAE Guideline 0-2005

1.4 DEFINITIONS

- A. Basis of Design (BOD): The documentation of design criteria and assumptions for systems, components, and methods chosen to meet the Owner's Project Requirements and applicable regulatory requirements, standards, and guidelines. The document includes narrative descriptions of the systems to be commissioned. The BOD is prepared by the Design Professionals.
- B. Building Automation System (BAS): The automated building system providing control and user interaction with select building systems, such as the HVAC, domestic hot water and lighting systems.
- C. Commissioning Authority (CxA): An independent agent hired directly by the Owner and not otherwise associated with the Design Professional(s) or the General Contractor. The CxA assists the General Contractor with coordinating commissioning activities and witnesses the activities on behalf of the Owner.

- D. Commissioning Issue (Cx Issue): A condition that affects, prevents or inhibits commissioning, and must be resolved to complete the commissioning process.
- E. Commissioning Issues List (Cx Issues List): A log maintained by the CxA listing all Deficiencies and Cx Issues documented during the commissioning process. All issues require action, correction and closure.
- F. Commissioning Report (Cx Report): The final report issued at the conclusion of the commissioning process. The report will include an executive summary abbreviating the outcome of the commissioning process and identifying all outstanding issues. The report also contains all commissioning documentation collected throughout all phases of the project.
- G. Commissioning Plan (Cx Plan): A document that outlines the organization, coordination, and requirements of the commissioning process in more detail.
- H. General Contractor (GC): The contractor directly contracted to the Owner with overall responsibility for the project and all commissioning activities described herein.
- I. Commissioning Coordinator (CxC): Individual within the GC firm who plans, schedules, directs and coordinates all the Trade Sub-Contractor's commissioning activities, and serves as the CxA's single point of contact for all administrative, documentation and coordination functions.
- J. Deferred Testing: Testing performed at a later time, due to partial occupancy, equipment, load, seasonal requirements, design or other site conditions that disallow the test from being performed prior to substantial completion.
- K. Deficiency: A condition in the installation or function of a component, piece of equipment or system that is not in compliance with the Contract Documents. A Deficiency will be considered a Cx Issue and documented on the Cx Issues List.
- L. Design Professional (DP): Architects, engineers and other consultants involved in the design of the over project scope.
- M. Functional Performance Test (FPT): A test of the dynamic function, operation and control of the equipment and systems to verify system performance to the fullest extent. Systems are tested under various operating modes and control sequences including failure modes. The FPTs are performed using manual (direct observation) or monitoring methods. The FPTs can include sequence of operation tests, performance verification tests, trend analysis and integrated systems tests. Functional performance tests are also often referred to as acceptance tests.
- N. Installation Verification (IV): Field verification and documentation of proper installation of system equipment, assemblies and components prior to Startup. IV process is complete when systems are ready for Startup. IV's are organized and documented under the System Readiness Checklist (SRC) forms.
- O. Monitoring: The recording of parameters (flow, current, status, pressure, etc) of equipment operation, which shall be completed using data-loggers or the Trending capabilities of BAS or control systems.
- P. Owner's Project Requirements (OPR): A document describing the operational and functional requirements of a project, the expectations of how the facility will be used and operated, and the equipment and system expectations and requirements, as defined by the

Owner. This document provides an explanation of the ideas, concepts, goals, success criteria, and supporting information for the project.

- Q. Percent Sampling: Witnessing the Startup or testing of a selected fraction of the total number of identical or near-identical pieces of equipment such as VAV boxes.
 - R. Pre-Functional Checks & Tests (PFCs): These are various checks and tests performed on a piece of equipment or system just before, during, or after the initial Startup and operation. They are performed to confirm that the equipment and individual components were installed correctly and are working properly. Examples include checking fan rotation, sensor calibration, actuator testing, and spot temperature, pressure and electrical measurements. They also include system specific tests such as pipe system pressure tests, duct leakage tests, mechanical system test and balance and electrical equipment NETA testing. They are organized under the System Readiness Checklist (SRC) forms and must be completed prior to FPTs.
 - S. Startup: Initial starting or activating of equipment usually performed by the Trade Sub-Contractor or the Manufacturer's authorized representative.
 - T. Systems Manual: The CxA will complete a LEED Systems Manual for the systems and equipment commissioned, with assistance provided by the CxC and Trade Sub-Contractors. The Systems Manual will provide the operating staff the information needed to understand and optimally operate the commissioned systems and includes the final BOD, single line diagrams, as-built controls drawings and sequences of operation and O&M manuals.
 - U. System Readiness Checklist (SRC): A summary checklist, typically one page per equipment, covering the necessary commissioning tasks and required documentation to verify that a system is ready for FPTs, or system operation if no FPTs are performed. The tasks covered in the SRC include IV, Startup and PFC, and the Trade Sub-Contractor completed forms for these tasks are attached to the equipment specific SRC. The SRC must be completed and signed by the GC prior to conducting the FPTs.
 - V. TAB: Testing, Adjusting, and Balancing work on the air and water systems to ensure design flow conditions are met. Performed by the TAB Trade Sub-Contractor.
 - W. Trade Sub-Contractor: Typically a subcontractor to the GC who provides and installs specific building components and systems and/or provides certain services.
 - X. Trending: Monitoring using the Building Automation System (BAS) or a control system, to aid in functional testing and to verify system operation and performance under actual operating conditions.
 - Y. Warranty Phase: The phase of the project immediately after the initiation of the building equipment warranty which spans the entire length of the equipment warranty.
- 1.5 SYSTEMS TO BE COMMISSIONED
- A. This specification section is applicable to the following systems and equipment to be commissioned in this project:
 - 1. All equipment and controls of the HVAC systems (does not include any process refrigeration equipment).
 - 2. Building Automation System / HVAC system controls
 - 3. Lighting system controls
 - 4. Domestic hot water heating systems

5. Renewable Energy Systems

1.6 SUMMARY DESCRIPTION OF COMMISSIONING

- A. Commissioning is a quality assurance process for achieving, verifying and documenting that building systems are installed and perform functionally as intended according to the OPR, BOD, and the requirements of the Contract Documents.
- B. Commissioning during the construction phase is intended to achieve the following specific objectives:
 - 1. Commissioning review of the Trade Sub-Contractor submittals for systems to be commissioned, concurrent with the Design Professional's review.
 - 2. Finalize the commissioning specific details within the Cx Plan.
 - 3. Verify that applicable equipment and systems are installed according to the manufacturer's recommendations and to industry-accepted minimum standards and that they receive the required operational checkout and testing by the Trade Sub-Contractors.
 - 4. Verify and document proper performance of equipment and systems.
 - 5. Completion of the Title-24, Part 6 acceptance test requirements and Certificate of Acceptance forms.
 - 6. Verify that operation and maintenance documentation is provided by the Trade Sub-Contractors and is complete.
 - 7. Develop a systems manual (for energy-related systems per LEED) that provides future operating staff the information necessary to optimally operate the commissioned systems.
 - 8. Verify that the Owner's facilities and operations personnel are trained according to Contract Document requirements.
 - 9. Prepare the commissioning report and documentation.
- C. The commissioning process does not take away from or reduce the responsibility of the GC to provide a finished and fully functioning building. The GC has overall responsibility to assure that all systems are properly tested and commissioned, and that all required commissioning documents are completed and provided to the Owner.
- D. The Project will meet the Commissioning Requirements of LEED-NC v3.0, Energy & Atmosphere, Prerequisite 1 (Fundamental Commissioning) and Credit 3 (Enhanced Commissioning). The GC, Trade Sub-Contractors, and suppliers are responsible to ensure all requirements for commissioning are met in their respective work.

1.7 GENERAL COMMISSIONING PROCESS

- A. Unless otherwise noted in the trade specific commissioning specification sections, the general commissioning process is as follows. See the trade specific commissioning specification sections for additional details on the commissioning process.
- B. Submittal Reviews by the CxA (concurrent with the Design Professional reviews)
 - 1. The GC shall include the CxA on the distribution of the Trade Sub-Contractor issued submittals to the Design Professionals, for the systems to be commissioned. The CxA will provide review comments to the Design Professionals.
- C. Cx Plan and Form Development
 - 1. The CxA prepares a Cx Plan that provides guidance in the execution of the commissioning process during construction.
 - 2. The CxA develops the SRC and FPT forms and provides them to the GC and Trade Sub-Contractors for review and comment.

- D. System Readiness Checklist Activities
1. The Trade Sub-Contractors shall perform IV, Startup and PFC activities. The Trade Sub-Contractors and the CxC shall document completion of these activities on the SRC forms and attach the completed IV, Startup, and PFC forms to the SRC.
 2. The CxA will perform various field observations and reviews during the installation phase and back-checks of the completed IV. The CxA will also witness a percent sampling of the Startups and PFCs (some of the witnessing may be performed as back-checks after PFCs are completed).
 - a. The Trade Sub-Contractor shall resolve any PFC results deemed unacceptable by the CxA. The Trade Sub-Contractor shall execute a new sample of the PFCs (some of the witnessing may be performed as back-checks after the PFCs are completed). The CxA shall deem the PFCs acceptable after resolution of all issues and any witnessed sampling results in no issues.
- E. Functional Performance Testing (Acceptance Testing)
1. Once the GC completes the SRC forms, the Trade Sub-Contractors shall execute all FPTs (including the applicable Mechanical, Lighting and Process Space and Equipment acceptance tests per Title-24, Part 6 2013) and the CxA witnesses a sample as defined in the Cx Plan. The intent is to integrate any required functional tests per Title-24 into the overall commissioning process. The FPTs may be achieved by any combination of manual testing, monitoring or trending.
 - a. Any witnessed sampling of the FPTs that do not pass shall require the Trade Sub-Contractor to resolve the issue for all equipment and a new sample of the FPTs shall be executed and witnessed by the CxA. The CxA shall deem the FPTs acceptable after resolution of all issues and any witnessed sampling of tests has passed.
 - b. The responsible Division 22, 23, and 26 Trade Sub-Contractors are responsible for providing qualified and certified "Field Technicians" (per Title 24, Part 6 2013 requirements) to perform and document the results of the acceptance procedures (Acceptance Tests) on Certificate of Acceptance forms per Title 24, Part 6 2013.
 - c. The GC shall assign the responsible Trade Sub-Contractor for completing each specific Acceptance Test.
 - d. The GC or the responsible Division 22, 23, 25 or 26 Trade Sub-Contractor shall be the designated "Responsible Person" per Title 24, Part 6 2013, for certification of the acceptance testing/verification on the Certificate of Acceptance forms (contained in Appendix A of the Title 24, Part 6 2013 Compliance Manual).
 2. The Cx Plan will define any seasonal/deferred testing.
- F. Deficiencies and Commissioning Issues
1. Throughout the process, the CxA records Cx Issues on the Cx Issues List and distributes the list to the team. The GC and Trade Sub-Contractors shall correct Cx Issues and retest the system(s) without delay at no additional cost to the Owner. The CxA will verify the completion of the issues and make all amendments to the issues list.
- G. O&M Manuals, Training Verification and Final Documentation
1. The CxA will verify the Trade Sub-Contractors provides complete operation and maintenance (O&M) manual documentation to the Owner.
 2. The GC shall submit to the CxA and Owner a training schedule and specific training agendas (for each training class), for review prior to conducting any training. The CxA will also verify completion of the training by receiving a copy of the training class sign-in sheets and any training materials / handouts, provided by the GC.

3. The CxA will develop the Systems Manual (per LEED requirements) with assistance from the GC and Trade Sub-Contractors. The systems to be included are the HVAC systems and controls, lighting controls, domestic hot water systems and controls, and any renewable energy systems.
4. The CxA will complete the Final Construction Phase Commissioning Report and documentation for the Owner with assistance from the GC and Trade Sub-Contractors.

H. Post-Occupancy Warranty Phase Commissioning

1. The CxA will report any identified performance issues, warranty items or problems to the CxC via a Warranty Phase Cx Issues List for correction by the GC and Trade Sub-Contractors during or prior to the end of the warranty period.
2. The CxA will review trend data during the Warranty Phase and will report any identified issues.
3. No later than 90 days prior to the expiration of the first 12 month warranty period of building occupancy, the CxA will return to the facility to interview facility O&M staff, walk the facility and review systems operation and trend data where applicable. Key representatives from the GC and Trade Sub-Contractors shall attend a site walk-through and meeting, as determined by the CxA.

1.8 COMMISSIONING TEAM

- A. The Commissioning Team is responsible for performing the process and achieving successful commissioning results. The Commissioning Team is comprised of the following:
1. Owner's Representatives
 2. Design Professionals (DP).
 3. Commissioning Authority (CxA).
 4. General Contractor (GC)
 5. GC's Commissioning Coordinator (CxC)
 6. Trade Sub-Contractors responsible for specific types of systems being commissioned:
 - a. Mechanical Contractor
 - b. Electrical Contractor
 - c. HVAC Controls Contractor
 - d. HVAC Testing and Balance (TAB) Contractor
 - e. Plumbing Contractor

1.9 RESPONSIBILITIES

- A. General:
1. The Commissioning Team and all others involved in the commissioning process shall follow the Cx Plan, attend the commissioning kickoff meeting, and attend additional commissioning meetings as necessary.
- B. Commissioning Authority (CxA)
1. The primary role of the CxA is to oversee, organize and lead the commissioning team and assist the GC and Trade Sub-Contractors in executing the commissioning process.
 - a. Prepare the Cx Plan and develop the SRC and FPT forms.
 - b. Work with the GC to schedule commissioning activities.
 - c. Lead commissioning team meetings, prepare meeting agendas and distribute meeting minutes.
 - d. Observe on a sampling basis the system and equipment installation, start-up, checkout, and testing for compliance with the OPR, BOD, and Contract Documents; and review completion of commissioning documentation.

- e. Sample witness the execution of the FPTs (including Title-24 Acceptance Tests) by the Trade Sub-Contractors. The CxA will witness one (1) re-test of any commissioned equipment or system.
 - f. Be the authority on commissioning test results and other commissioning program elements completion. Prepare, maintain and distribute the Cx Issues List.
 - g. Review and comment on training agendas and verify that training is completed and O&M manuals are delivered.
 - h. Lead the effort in developing the Systems Manual for energy-related systems in accordance with LEED requirements
 - i. Assemble the commissioning documents and prepare the Commissioning Report.
2. The CxA is not responsible for:
- a. Design concept or design criteria
 - b. Review for code compliance
 - c. Inspector of record services
 - d. Design and construction scheduling
 - e. Cost estimating
 - f. Construction management
 - g. Providing tools and test equipment used for commissioning.
 - h. Scheduling startup and testing
 - i. Coordinating the work of Trade Contractors and any special testing agents
 - j. Performing startup and testing
- C. General Contractor:
1. The GC is responsible for performing all commissioning tasks, including tasks assigned to Trade Sub-Contractors and ensures that all Trade Sub-Contractors execute their commissioning responsibilities according to the Contract Documents, Cx Plan, and schedule.
- a. Include the cost for commissioning in the project cost.
 - b. Assign a CxC for the duration of the project with responsibilities outlined herein.
 - 1) The CxC shall have at least five years' experience within the disciplines of construction.
 - 2) The GC shall submit the name of the person(s) assigned as the CxC to the CxA within a month of contract award.
 - c. Schedule and coordinate the commissioning meetings with the CxA.
 - d. Plan, schedule, coordinate and facilitate the commissioning work performed by the Trade Sub-Contractors. Provide sufficient lead time of at least 10 days to notify the CxA in advance of commissioning activities. Update the master construction schedule periodically with commissioning progress and activities.
 - e. Review, comment and accept the Cx Plan prepared by the CxA.
 - f. Furnish continual updates of any construction related documents such as change orders, submittals, shop drawings, ASIs and RFIs to the CxA. Electronic files are acceptable.
 - 1) The CxC shall ensure the issuance of the requested submittals for review by the CxA when also issued to the Design Team.
 - g. Obtain and review the Trade Sub-Contractor IV, Startup and PFC forms prior to use.
 - h. Using IV, Startup, PFC, SRC and FPT forms, document and certify the completion of all work and all systems are installed, operational, and functionally tested.
 - i. Ensure completion of the Title 24, Part 6, 2013 Acceptance Tests and completion and certification of the Certificate of Acceptance forms.
 - j. Organize all Trade Sub-Contractor-completed Cx forms to be submitted to the CxA for review.

- k. Evaluate deficiencies identified on the Cx Issues List. The CxA will track the issues according to the responsible entity. Collaborate with Trade Sub-Contractors and recommend corrective action. Assure resolution of all Cx Issues.
 - l. Prepare a training schedule along with the Trade Sub-Contractor training agendas and submit to CxA and Owner for review. Execute training of Owner's personnel per approved training schedule and agendas.
 - m. Prepare O&M Manuals in accordance with the Contract Documents.
 - n. Assist the CxA in developing the Systems Manual.
- D. Trade Sub-Contractors:
- 1. See the trade specific commissioning specification sections for the Trade Sub-Contractor responsibilities.

PART 2 - PRODUCTS

2.1 TEST EQUIPMENT

- A. The responsible Trade Sub-Contractor shall furnish all standard testing equipment required to perform Startup, PFCs and FPTs.
- B. All testing equipment shall be of sufficient quality and accuracy to test and/or measure system performance with the tolerance specified in the Contract Documents. If not otherwise specified, the following minimum requirements apply:
 - 1. All equipment shall be calibrated according to the manufacturer's recommended intervals (or within one year if not otherwise specified) and recalibrated when dropped or damaged.
 - 2. Calibration tags shall be affixed to or certificates readily available for all test equipment.

PART 3 - EXECUTION

3.1 SCHEDULING AND COORDINATION

- A. The CxA will provide an initial list of commissioning milestones and deliverables to the CxC for scheduling purposes.
- B. The GC shall integrate all commissioning activities, milestones and deliverables into the master construction schedule with assistance and input from the CxA.
- C. The CxC shall provide sufficient notice to the CxA and Owner for scheduling and coordinating commissioning activities. A minimum 10 days' notice shall be provided to the CxA for witnessing equipment Startups, PFCs, FPTs, and Title 24 Acceptance Tests.
- D. The Commissioning Team shall address scheduling problems and make necessary modifications in a timely manner in order to expedite the commissioning process.

3.2 MEETINGS

- A. When commissioning team member attendance is required, as determined by the CxA and CxC, be punctual and attentive during the meeting.

1. The CxA will conduct a commissioning kick-off meeting, usually within 60 days of the commencement of construction. All team members involved in the commissioning process shall attend the kick-off meeting.
 2. The CxA will plan other commissioning meetings as deemed necessary as construction progresses. These meetings will cover planning and coordination, and Cx Issues resolution.
 3. The frequency of meetings will vary through construction, but generally increase during Startup and commissioning activities.
- B. The CxA will write and distribute meeting minutes documenting the meeting discussion, conclusions, and actions for each team member.

3.3 COMMISSIONING ISSUES, BACK-CHECKS AND RE-TESTING

- A. All Deficiencies and Cx Issues shall be corrected promptly. The responsible party shall correct the issue and inform the CxC and CxA of the resolution and completion date. The CxA will record completion on the Cx Issues List after a successful back-check or verification.
1. For all Cx Issues identified during the pre-functional system readiness activities, the CxA will back-check and verify the completion of the issues where appropriate.
 2. For all Cx Issues identified during FPT, the Trade Sub-Contractor shall retest to verify the resolution of the issue and to complete the FPT.
 3. Where sampling is used for witnessing PFCs and FPTs, the results shall be deemed acceptable once all noted issues are resolved and any new sample set of tests or checks have passed. The CxA will witness one (1) re-test for each equipment and will perform one (1) back-check verification of any completed system readiness issue.

3.4 COMMISSIONING ACCEPTANCE, CLOSEOUT AND REPORTING

- A. Completion of the main commissioning activities (system readiness checks, functional and acceptance testing, training, and delivery of O&M manuals) shall be accomplished as a prerequisite for substantial completion. Completion of all Cx Issues and any re-testing shall be completed prior to final acceptance of commissioning by the Owner.
- B. After completion of the commissioning activities and following review of the completed commissioning documents that includes the draft Cx Report executive summary, all test results and the latest Cx Issues List with all remaining Cx Issues and deficiencies, the Owner will provide a formal written acceptance of the project construction phase commissioning. At that point, the CxA will transfer any remaining construction phase Cx Issues or seasonal/deferred testing to the warranty phase and tracked by the CxA as part of the LEED Post-Occupancy Warranty Phase Commissioning.
- C. Upon completion of all commissioning activities, the CxA will prepare and submit to the Owner a Final Cx Report detailing all completed commissioning activities and documentation. The CxC shall support this effort by providing all GC and Trade Sub-Contractor commissioning documentation.
- D. The Final Cx Report will include the Owner's written acceptance of construction phase commissioning.

END OF SECTION 01 9113

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