

STATE OF CALIFORNIA DEPARTMENT OF GENERAL SERVICES



**REAL ESTATE SERVICES DIVISION
PROJECT MANAGEMENT AND DEVELOPMENT BRANCH**

PROJECT MANUAL

INTRODUCTORY INFORMATION
BIDDING REQUIREMENTS
CONTRACTING REQUIREMENTS
SPECIFICATIONS

FOR:

ADMINISTRATION AND ANNEX BUILDING REROOF

DEPARTMENT OF STATE HOSPITALS

PATTON STATE HOSPITAL

PATTON, SAN BERNARDINO, CALIFORNIA

Richard Kuyper, Project Director
West Sacramento, California

MARCH 2, 2025

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DOCUMENT 00 01 01

PROJECT TITLE PAGE

Title : DSH ADMINISTRATION AND ANNEX
BUILDING REROOF

Client Agency : Department of State Hospitals

Location : 3102 E. Highland Avenue,
Patton, San Bernardino, CA 92369

Project Number : 000000000010039

Project Director : Richard Kuyper
State of California
Department of General Services
Real Estate Services Division
Project Management and Development Branch
707 Third Street, 4th Floor
West Sacramento, California 95605
Telephone Number: (279) 946-8389
Email: Richard.Kuyper@dgs.ca.gov

CERTIFICATIONS PAGE

Title: DSH ADMIN ROOF REPLCMNT PATTON

Client Agency: DSH DEPARTMENT OF STATE HOSPITALS

Location: Patton State Hospital
3102 E. Highland Avenue
Patton, CA 92369, San Bernardino County

Project Number: 00000000010039

Project Director: Jason Bumgardner
State of California
Department of General Services
Real Estate Services Division
Project Management and Development Branch
707 Third Street, 4th Floor
West Sacramento, California 95605



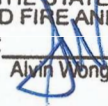
ARCHITECT	STRUCTURAL	STATE FIRE MARSHAL
		<p>OFFICE OF THE STATE FIRE MARSHAL APPROVED FIRE AND PANIC ONLY Reviewed by:  Alvin Wong, Senior Architect</p> <p>MAR 12 2024</p> <p>Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.</p>
	03-07-2024	

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STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES
REAL ESTATE SERVICES DIVISION
PROJECT MANAGEMENT AND DEVELOPMENT BRANCH

DOCUMENT 00 11 00

INVITATION FOR BIDS

For Informal Bidding by Invitation Only: This project is being bid informally to select prime Contractors in accordance with Government Code § 14838.7. Bid forms will be provided to bidders via email.

SEALED BIDS: DGS will receive sealed bids at 707 Third Street, West Sacramento, California 95605, **before 2:00 P.M., October 1, 2025. Bids received after this date/time will not be considered received on time.**

A public bid opening will be held on **October 2, 2025 at 2:00 PM** at 707 Third Street, West Sacramento, CA 95605. Bidders may attend virtually or in person. Bidders attending the bid opening in-person will need to meet and sign in at the security guard station in the lobby at the mailing address below. At the public bid opening, all bids received before **2:00 P.M., October 1, 2025** will be opened and recorded onto a Preliminary Bid Tabulation. Bidders do not need to attend the bid opening as the Preliminary Bid Tabulation will be made available immediately after the bid opening is completed and it will be emailed to invited bidders.

The bid opening may be attended virtually via the following link:

[Join the meeting now](#)

Meeting ID: 232 485 370 001 1

Passcode: GA2iQ6bY

HAND DELIVERED BIDS: Shall be placed in the DGS/OBAS Bid/Proposal Drop Box located in the lobby at 707 3rd Street in West Sacramento. The Drop Box will be opened at 2:00 p.m. Tuesday through Thursday and bids/proposals in the box will be certified as being received before 2:00 p.m. that day.

If mailing bids, ensure the outside of the mailing reads:

ATTENTION: PAVAN RANDHAWA
ADMINISTRATION AND ANNEX BUILDING REROOF
DEPARTMENT OF STATE HOSPITALS
PATTON, SAN BERNARDINO COUNTY, CALIFORNIA
DO NOT OPEN
DEPARTMENT OF GENERAL SERVICES
OFFICE OF BUSINESS AND ACQUISITION SERVICES
707 3RD STREET, MS 508, WEST SACRAMENTO, CA 95605

The bids shall include all Work pursuant to the Drawings and Project Manual, and Addenda as may be issued prior to bid opening date.

Scope of Work: The existing built-up roofing and PVC as shown on the plans is to be removed and replaced with new 30-year warranty PVC Roof System and new Rigid Insulation System including flashing, replacement of the existing roof drains, downspouts, gutters and new parapet flashing where required. Building to have tapered insulation with positive slope to gutters. Lead Based Paint and Asbestos-containing materials (ACMS) have been found on the roof. ACM removal specifications are

INVITATION FOR BIDS

RESDMSTR: 03/01/2025

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included in the documents. Lead paint and existing ACM material present on the roof will be removed as part of the project. The 800 MHZ Radio Antenna is supported by an existing steel frame. The existing frame will be temporarily lifted and removed. A new steel frame will be assembled and the attached to the roof during the install of the new PVC roof. The existing steel frame will be secured to the new steel frame structure and mounted to the existing concrete roof deck. The smaller antenna will remain a Ballast System and will be removed and replaced on the new PVC roof assembly. There will be a Ballast Fall Protection Railing System installed on the roof deck. There will be four additional Tie Off Davits installed on the roof. The scope of work involved in the project is exempt from the Division of the State Architect Accessibility Requirements in Accordance with Title 24, California Code of Regulations, 20233 California Building Code.

License: Contractors' State License Classification required to bid Project is **B**.

Certificate of Reported Compliance (CRC) – Fleet Vehicles: As a condition of Contract award, prior to Contract execution, Contractor shall submit copies of the valid CRCs for any fleet retained by the Contractor or any listed Subcontractor, for which any vehicles subject to the California Air Resources Board In-Use Off-Road Diesel Fueled Fleet Regulations, Section 2449(i), Title 12, California Code of Regulations, are used in the completion of the work included in the Contract. More information on the In-Use Off-Road Diesel-Fueled Fleets Regulation can be found at the following link: <https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation>

Generative Artificial Intelligence (GenAI): The State of California seeks to realize the potential benefits of GenAI, through the development and deployment of GenAI tools, while balancing the risks of these new technologies.

Bidder must notify the State in writing if it: (1) intends to provide GenAI as a deliverable to the State; or (2), intends to utilize GenAI, including GenAI from third parties, to complete all or a portion of any deliverable that materially impacts: (i) functionality of a State system, (ii) risk to the State, or (iii) Contract performance. For avoidance of doubt, the term “materially impacts” shall have the meaning set forth in State Administrative Manual (SAM) § 4986.2 Definitions for GenAI.

Failure to report GenAI to the State may result in disqualification. The State reserves the right to seek any and all relief to which it may be entitled to as a result of such non-disclosure.

Upon notification by a Bidder of GenAI as required, the State reserves the right to incorporate GenAI Special Provisions into the final contract or reject bids/offers that present an unacceptable level of risk to the State.

Government Code § 11549.64 defines “Generative Artificial Intelligence (GenAI)” as an artificial intelligence system that can generate derived synthetic content, including text, images, video, and audio that emulates the structure and characteristics of the system’s training data.

Availability of Funds: Award of this contract is subject to the availability of funds through the State’s normal budget process and/or transfer of funds to the Department of General Services through the Architecture Revolving Fund.

Pre-bid Site Inspection: Bids will only be accepted from those Contractors having attended the **MANDATORY** pre-bid site inspection tour on **September 17, 2025, at 09:00 AM**, at which time representatives of the State and prospective bidders shall meet at Patton State Hospital, Visitors Entrance, located at 33102 Highland Avenue, Patton, CA 92369, Meet at Plant Operations Building. The State’s requirements for Disabled Veteran Business Enterprise (DVBE) participation and other Contract requirements will be presented. Prime Contractors are encouraged to have their Key Administrator and DVBE office coordinator attend to receive this information and to have their questions answered. **Attendance for the entire inspection is required in order for bidders to be eligible to submit a bid.**

Security Clearance: Bidders' attention is directed to the deadline to contact James Villapudua, Project Director, at (279) 799-4407 **no later than 5:00 PM , September 15, 2025;** and provide (1) full name, (2) telephone number, (3) Social Security Number, (4) Identification Number or California Drivers License Number and expiration year, and (5) date of birth; for security clearance to enter institution. Khaki, beige, brown, olive drab or camouflaged clothing, cameras and recording devices will not be allowed. (not applicable for virtual pre-bid inspections). See Section 01 35 53, Correctional Security Project Procedures, for additional requirements.

Executive Order N-6-22: The Bidder must be advised of Executive Order N-6-22 Russia Sanctions. On March 4, 2022, Governor Gavin Newsom issued Executive Order (EO) N-6-22 regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. By submitting a bid, Bidder represents that it is not a target of Economic Sanctions. Should the State determine Bidder is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for rejection of the Bidder's bid any time prior to contract execution, or, if determined after contract execution, shall be grounds for termination by the State.

Bid: Submit on Lump Sum basis.

DVBE: Participation in Disabled Veterans Business Enterprises (DVBE) program **may** be required for this project. Refer to Project Manual Document 00 21 00, Project Manual Document 00 22 10 and Bid Forms for requirements. Bidders are advised to commence the required DVBE procedures immediately upon receipt of drawings and project manual.

DVBE Bid Incentive: The DVBE Incentive program is being applied on this project. Refer to Project Manual Document 00 21 00, Article 18.5.

Small Business Preference: Refer to Project Manual Document 00 21 00, Article 5.5

Non-Small Business Subcontractor Preference: Refer to Project Manual Document 00 21 00, Article 5.6

Bonds: Successful bidder shall furnish payment and performance bonds, each in the amount of 100 percent of the Contract price.

Non-Discrimination Program (Government Code § 12990): Refer to Project Manual Document 00 72 00, General Conditions of the Contract for Construction.

Labor Code: Pursuant to Labor Code § 1774, the Contractor to whom the contract is awarded, and any subcontractor under him, shall pay not less than the specified general prevailing rates of per diem to all workers employed in the execution of the contract. Pursuant to Labor Code § 1770 et seq., the Department of Industrial Relations (DIR) has ascertained general prevailing rate of per diem wages in the locality in which the work is to be performed. Copies of the general prevailing rate of per diem wages are available from the Department of Industrial Relations, Labor Statistics & Research Division, P.O. Box 420603, San Francisco, CA 94142, (415) 703-4780; or general prevailing rate of per diem may be accessed on the internet at Department of Industrial Relations website (<https://www.dir.ca.gov>) for the August 2025 published general prevailing rate of per diem wages for this contract. Copies of the general prevailing rate of per diem wages are on file at DGS' principal office, which shall be made available to any interested party on request. Note that when the general prevailing rate of per diem determination shows an expiration date (noted by a double asterisk**), to expire during the term of the contract, the Contractor must call or write the DIR to obtain the new rates and incorporate them in this contract for submittal of bid. The Contractor is responsible to comply with the Labor Code Sections and general prevailing rate of per diem determinations, including all the guidelines and the fine print in the

general prevailing rate of per diem determinations. Refer to Project Manual Document 00 72 00, General Conditions of the Contract for Construction.

Labor Compliance Monitoring and Enforcement: This project is subject to monitoring and enforcement by the Department of Industrial Relations (DIR), Compliance Monitoring Unit. All Contractors and subcontractors, regardless of tier, shall be required to comply with the Monitoring and Enforcement Program, including, but not limited to, contractor registration, submittal of electronic certified payroll reports directly to the DIR as applicable and cooperation with on-site monitoring by DIR personnel. Refer to Labor Code § 1771.4 et seq. and the General Conditions of the Contract for Construction, Document 00 72 00, Article 3.3.3 for more information.

END OF DOCUMENT

STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES
REAL ESTATE SERVICES DIVISION

DOCUMENT 00 21 00

INSTRUCTIONS TO BIDDERS

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DOCUMENT 00 21 00
INSTRUCTIONS TO BIDDERS

1. GENERAL

- 1.1 Bidder shall examine these instructions carefully and be responsive to conditions with which must be complied with prior to bid.
- 1.2 Bidders shall be aware of the requirements of codes referenced in the Bidding Requirements and in the Contract Documents. Bidders may access codes included in California law through publications or through the Internet. The web site for California law is: <http://leginfo.legislature.ca.gov/faces/codes.xhtml>.

2. COMPETENCE OF BIDDERS

2.1 License:

- .1 Bidder may only bid on work for which Bidder is properly licensed by the Contractors' State License Board.
- .2 Joint venture Bidders must possess a joint venture license. Each party to a joint venture shall be properly licensed for the Work of this Project.

- 2.2 Prior Disqualification: Public Contract Code Section 10162 provides that 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 a law or a safety regulation.

If the answer to the questionnaire included in the Bid Form is "yes" the Department will review the circumstances presented and if the Director deems acceptance of the bid is not in the best interest of the State, bid may be rejected.

- 2.3 Employment of Undocumented Aliens: Pursuant to Section 6101 of the Public Contract Code, the State may not award a public works contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a public works contract, who has, in the preceding five years, been convicted of violating a state or federal law respecting the employment of undocumented aliens.

2.4 Contractor Registration:

- .1 Pursuant to Sections 1725.5 and 1771.1 of the Labor Code, all contractors and subcontractors must be currently registered with the Department of Industrial Relations in order to qualify to bid on; be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code; or engage in the performance of any contract for public work.
- .2 Limited exceptions for Joint Venture Bidders and Projects with Federal Funds may apply pursuant to Section 1771.1 of the Labor Code.

- 2.5 Ineligible Subcontractors: Pursuant to Section 1777.1 or 1777.7 of the Labor Code, a contractor is prohibited from bidding on, being awarded or performing work on a public works project with a subcontractor who is ineligible to perform work on the public works project. Refer to the General Conditions of the Contract for Construction, Article 4.1.3.

- 2.6 Asbestos Abatement Certification: If Contractor performs the asbestos abatement work; Contractor must be certified for asbestos abatement work by the Contractors' State License Board. If Contractor subcontracts the asbestos abatement work, Contractor need not be certified for asbestos abatement, but the subcontractor must be certified by the Contractor's State License Board.
- 2.7 Hazardous Substance Removal Certification: If Contractor performs the hazardous substance removal work or remedial action; Contractor must be certified for hazardous substance removal work by the Contractors' State License Board. If Contractor subcontracts the hazardous substance removal work or remedial action, Contractor need not be certified for hazardous substance removal, but the subcontractor must be certified by the Contractor's State License Board.

3. EXAMINATION OF BID DOCUMENTS AND SITE

3.1 Bidder's Responsibility:

- .1 Bidder shall carefully examine the Work site, Drawings, and Specifications (contract documents). This includes reference only documents that will not be part of the agreement, but are provided in addition to documents that will be part of the agreement. See the Office of State Publishing Plan Room <https://www.ospplanroom.com/> (Details tab, Documents folder) for reference only documents.
- .2 By submitting a bid, Bidder acknowledges that the Bidder understands the character, quality and quantity of surface, locations of utilities, subsurface materials, or obstacles to be encountered; insofar as this information is reasonably ascertainable from inspection of the Work site, Drawings, and Specifications.
- .3 Bidder's examination shall include all exploratory work done by the State, as well as information presented in the Drawings, Specifications, and other documents as available.

3.2 Refer to Document 00 11 00, Invitation to Bid, for availability of bidding documents.

3.3 Failure by Bidder to acquaint itself with available information will not relieve Bidder from responsibility for estimating properly the difficulty or cost of successfully performing the Work.

3.4 In connection with the foregoing, Bidder's attention is invited to Paragraphs 3.1 and 9.1 of Document 00 72 00, General Conditions of the Contract for Construction.

4. DISCREPANCIES, CONFLICTS, OMISSIONS, OR ERRORS

- 4.1 If discrepancies, conflicts, omissions or errors are found in the Drawings and the Project Manual prior to the date of bid opening, Bidder shall request clarification from the State's Representative identified in the Project Manual. Bidder shall submit request on Request for Bidding Interpretation Form, Appendix 00 21 00.1.
- 4.2 Clarifications will be given only in the form of Addenda to all Bidders.
- 4.3 If no Addenda are issued related to supposed discrepancy, conflict, omissions or errors in figuring the Work, Bidders shall consider that discrepancies, conflicts, or omission between Drawings and Specifications shall be governed by Paragraph 1.5 of Document 00 72 00, General Conditions of the Contract for Construction.

- 4.4 Omission of an item in either the Specifications or Drawings does not create a discrepancy or conflict.

5. BIDDING DOCUMENTS

- 5.1 Bid Form: All bids must be on the forms provided by the Department of General Services. Bid not on the forms provided will be considered nonresponsive.

5.2 Completing the Bid Form:

- .1 Bidder's name should be the same as listed on Bidder's license.
- .2 Price(s) shall be in the manner required by the Bid Form.
- .3 Bid Form shall be signed by Bidder or duly authorized representative.
 - 1) If Bidder is an individual, name must be shown.
 - 2) If Bidder is a partnership, name of the partnership must be shown and one or more partners shall sign the Bid Form.
 - 3) If Bidder is a corporation, name of the corporation must be shown, the state of incorporation must be listed, the title of the signor must be shown, and the corporate seal must be used.
 - 4) Bidder business and mailing address should be shown.

5.3 Required Listing of Proposed Subcontractors:

- .1 Failure to list kind of Work, Name, or Location shall cause the bid to be rejected as non-responsive.
- .2 Bidders' attention is directed to other provisions of the Subletting and Subcontracting Fair Practices Act, beginning with Public Contract Code Section 4100, related to penalties for failure to comply with the Act by using unauthorized subcontractors or by making unauthorized substitutions. See General Conditions of the Contract for Construction, Paragraph 1.1, for definition of subcontractor, and Article 4 for further reference to subcontractors.
- .3 Bidder's attention is directed to Labor Code Section 1771.1, relating to inadvertent errors in the listing of subcontractors not currently registered with the Department of Industrial Relations.

5.4 Bidders Security:

- .1 All bids shall be accompanied by the following forms of bidder's security: Bidder's Bond, cashier's check, certified check or cash. Bidder's Bond shall be executed by an admitted surety insurer, authorized to issue surety bonds in the State of California. Bond and checks shall be made payable to the director of the Department of General Services. The security shall be in an amount equal to at least 10 percent of the amount bid. A bid shall not be considered responsive unless one of the forms of bidder's security is enclosed with it.
- .2 If Bidder's security is a Bidder's Bond, it must be executed on the form attached to the Bid Form.

5.5 Small Business:

- .1 A five percent (5%) small business preference will be granted to Bidders certified as "Small Business" in accordance with Section 1896 et. Seq., Title 2, California Code of Regulations.

- .2 If the Bidder is not already a Certified Small Business, applications for certification as "Small Business" must be submitted to the Office of Small Business and DVBE Certification (OSDS), 707 3rd Street, First Floor, Suite 1-400, West Sacramento, CA 95605; <https://www.dgs.ca.gov/PD/About/Page-Content/PD-Branch-Intro-Accordion-List/Office-of-Small-Business-and-Disabled-Veteran-Business-Enterprise/Certification-Program>. Firms can apply for small business certification online at <https://www.dgs.ca.gov/PD/Services/Page-Content/Procurement-Division-Services-List-Folder/Certify-or-Re-apply-as-Small-Business-Disabled-Veteran-Business-Enterprise>.
- .3 Submit a copy of your OSDS certification letter with the Bid Form.
- .4 Pursuant to Section 1896.14, in order to receive the small business preference, bidders must have a completed application (including proof of annual receipts) on file with the OSDS. The bidder must have requested a preference from OSDS and meet all applicable requirements under the subchapter and the State Small Business Procurement and Contract Act, (including but not limited to evidence to rebut presumptions) not later than five o'clock (5:00 p.m.) on the date on which the subject bid is opened.

5.6 Non-Small Business:

- .1 The application of the five percent (5%) small business bidding preference is now extended to a bidder, whose business is not certified as a small business but commits to subcontracting at least twenty-five percent (25%) of its net bid price to businesses that are California certified small businesses and/or microbusinesses.

When applicable this preference will be granted when the non-small business:

- Has been determined to be a responsible bidder and submitted a timely responsive bid.
- Completes Document 00 43 16-2 list of California Certified Small Businesses that he/she commits to subcontract with for a commercially useful function in the performance of the project and submits this document no later than forty-eight (48) hours after the time of receipt of bids. Ascertain that the Bidder's Name and project Work Order number are noted.
If bidder fails to submit a properly completed Document 00 43 16-2 within 48 hours after the time of receipt of bids, the claim for non-small business preference will be denied.

Submit completed Document 00 43 16-2 to Department of General Services, Administration Division, Office of Business and Acquisition Services, Contract Management Section, 707 3rd Street, Suite 2-300, West Sacramento, CA 95605 or by fax to (916) 376-1778.

6. SUBMISSION OF BID FORMS

- 6.1 It is the sole responsibility of the Bidder to see that its bid is received in proper time. Bid received after scheduled closing time for receipt of bids will be returned to Bidder unopened.
- 6.2 Bid Forms shall be submitted under sealed cover, plainly identified as a bid for the work of the Project being bid upon and addressed as directed in the Invitation to Bid and the Bid Form. Failure to do so may result in a premature opening of, or failure to open such bid. Bid Forms improperly marked may be disregarded.

7. WITHDRAWAL OF BID FORMS

- 7.1 Bids may be withdrawn prior to the time fixed in the public notice for opening of bids, provided that a request in writing, executed by Bidder or Bidder's authorized representative, for withdrawal of such bid is filed with the Administration Division, Office of Business and Acquisition Services, Contract Management Section, or the Director of General Services at the location of the bid opening. Oral, facsimile, electronic, telegraphic, or telephonic request to withdraw the Bid Form is not acceptable. Withdrawal of a bid shall not prejudice the right of a Bidder to file a new bid.
- 7.2 This article does not authorize withdrawal of any bid after the time fixed in the Invitation to Bid for opening of bids.

8. PUBLIC OPENING OF BIDS

Bids will be publicly opened and read at time and place indicated in Invitation to Bid. Bidders or their authorized agents are invited to be present.

9. REJECTION OF IRREGULAR BIDS

- 9.1 Bids may be rejected if they show any alterations of form, additions not called for, conditional bids, incomplete bids, erasures, or irregularities of any kind. If bid amount is changed after the amount is originally inserted, the change must be initialed.
- 9.2 When Bid Form is signed by an agent, other than the officer or officers of a corporation authorized to sign contracts on its behalf, or are signed by an agent other than a partner of a partnership, or by an agent for an individual, a power of attorney must be on file with the Department of General Services prior to opening bids or shall be submitted with the Bid Form; otherwise the bid will be rejected as irregular and unauthorized.

10. COMPETITIVE BIDDING

- 10.1 If more than one Bid Form is offered by an individual, firm, partnership, corporation, association, or any combination thereof, under the same or different names, all such Bid Forms may be rejected. A party who has quoted prices on materials or work to a Bidder is not thereby disqualified from quoting prices to other Bidders, or from submitting a bid directly for materials or work.
- 10.2 Bidders are put on notice that any collusive agreement fixing the prices to be bid so as to control or affect awarding of the Contract is in violation of competitive bidding requirements of the State Contract Act and may render void any Contract let under such circumstances.

11. AWARD OF CONTRACT

- 11.1 The right is reserved to reject any and all bids and waive any irregularity in any bid received.
- 11.2 Award of the Contract, if awarded, will be to the lowest responsible Bidder whose Bid Form complies with all requirements prescribed.
- .1 Such award, if made, will be made within 45 days after opening of bids.
- .2 If lowest responsible Bidder refuses or fails to execute the Contract, the Director of General Services may award the Contract to the second lowest responsible Bidder. Such award, if made, will be made within 60 days after opening of bids.

- .3 If second lowest responsible Bidder refuses or fails to execute the Contract, the Director of General Services may award the Contract to the third lowest responsible Bidder. Such award if made, will be made within 75 days after opening of bids.

11.3 The above time periods within which award of Contract may be made are subject to extension of such further period as may be agreed upon in writing between the Department of General Services and the Bidder concerned.

11.4 When Project is segregated into more than one prime Contract, and a Bidder upon one of the prime Contracts fail or refuses to execute the Contract, then the time for award of such Contract will be extended as provided by this Article, and the time for award of each of the other segregated prime Contracts will be extended by an equivalent length of time, if required.

12. SUBSTITUTION OF ALTERNATIVE MATERIALS, ARTICLES, OR EQUIPMENT

12.1 Pursuant to Public Contract Code Section 3400, alternative material(s), article(s), or equipment that are of equal quality and of required characteristics for the purpose intended may be proposed during the bidding period; for use in the Work, provided the Bidder complies with the following requirements:

- .1 Proposals for alternative material(s), article(s), or equipment, requested during the bidding period, shall be submitted in writing, not later than the deadline date and time identified on the Request for Bidding Interpretation (RFBI), Appendix 00 21 00.1.
- .2 The proposal will not be considered unless the submittal is accompanied by complete information and descriptive data necessary to determine equality of offered material(s), article(s) or equipment. Samples shall be provided when requested by the State. Burden of proof as to comparative quality, suitability, and performance of offered material(s), article(s), or equipment shall be upon the Bidder submitting the proposal. The State will be the sole judge as to such matters. In the event the State rejects the use of such alternative(s) submitted, then one of the particular products originally specified in the Contract Documents shall be furnished. If the proposal is accepted, all Bidders will be notified by Addendum.
- .3 Refer to the General Conditions of the Contract for Construction, Clauses 2.2.7 and 3.12.10, for substitution requests after Contract Award.

13. RETURN OF BIDDER'S SECURITY

13.1 Within 10 days after the award of the Contract, the Department of General Services will return all Bidder's security, other than Bidder's Bonds, accompanying the Bid Forms that are not to be fully considered in making the award.

13.2 Retained Bidder's security will be held until the Contract has been fully executed, after which all Bidder's security, except Bidder's Bonds, will be returned.

14. CONTRACT BONDS

Contractor will be required to furnish in duplicate the Performance Bond and Payment Bond required by the State Contract Act, each in the amount of 100 percent of the Contract amount; as set forth in Paragraph 11.3 of Document 00 72 00, General Conditions of the Contract for Construction.

15. INSURANCE

Contractor will be required to furnish to the State, concurrently with execution of the Contract, a certificate of insurance coverage as required by Paragraph 11.1 of Document 00 72 00, General Conditions of the Contract for Construction.

16. EXECUTION OF CONTRACT

16.1 Contract shall be signed by successful Bidder and returned within 7 days of receipt. The Contract shall not be binding upon the State until it is executed by the Contractor and the State. Contract Documents required for execution of the Contract consist of the following:

- .1 Agreement, Document 00 52 00.
- .2 Contract Bonds.
- .3 Certificate of Insurance.
- .4 Signed set of Drawings and Project Manual for filing with the Contract.

16.2 Should Contractor begin work in advance of receiving notice that the Contract has been approved, any work performed in advance of the date of approval shall be considered as having been done at risk as a volunteer. In no event shall Contractor commence work until Contractor has received notification from the State that the certificate of insurance has been approved.

17. FAILURE TO EXECUTE CONTRACT

Failure to execute Contract within 7 days after successful Bidder has received Contract for execution may be cause for forfeiture of Bidder's security. Failure to provide required bonds and insurance constitutes failure to execute Contract.

18. PARTICIPATION IN DISABLED VETERANS BUSINESS ENTERPRISES (DVBE) PROGRAM

18.1 Pursuant to Section 10115 et seq. of the Public Contract Code, and Section 999 et seq. of the Military and Veterans Code, the Department of General Services has established an overall goal of not less than 3% participation by Disabled Veteran Business Enterprises (DVBE). However, these DVBE Participation Requirements may be modified for this project; reference Document 00 22 10 of the Project Manual for the percentage requirements.

18.2 Bids will only be accepted from those Bidders that certify that they have achieved the required participation, as outlined in Document 00 22 10 of the Project Manual, and as set forth in the Bid Form.

18.3 Applicants for DVBE certification may apply online at <https://www.dgs.ca.gov/PD/Services/Page-Content/Procurement-Division-Services-List-Folder/Certify-or-Re-apply-as-Small-Business-Disabled-Veteran-Business-Enterprise>. DVBE applicants must submit specific support documentation to the OSDS.

18.4 Bidder's attention is directed to the requirement that certifications and documentation must be submitted with the bid; otherwise bids will be considered non-responsive.

BIDDERS ARE ADVISED TO COMMENCE THE REQUIRED DVBE PROCEDURES IMMEDIATELY UPON RECEIPT OF DRAWINGS AND SPECIFICATIONS, OR NOT LESS THAN THREE (3) WEEKS PRIOR TO THE BID OPENING, WHICHEVER OCCURS FIRST.

18.5 DVBE INCENTIVE

- .1 A DVBE Incentive will be granted to Bidders in accordance with Section 999.5(a) and (d) of the Military and Veterans Code and California Code of Regulations 1896.98 et seq.
- .2 The DVBE Incentive will be applied during the bid evaluation process and will only be applied to responsive bids from responsible bidders proposing the percentage(s) of DVBE Participation for the DVBE Incentive specified in the solicitation. Any Small Business Preference must be calculated prior to the DVBE Incentive calculation and evaluation.
- .3 The incentive will be applied when a Bidder's DVBE Participation exceeds 3% the DVBE Mandatory participation Requirement, in an attempt to displace the apparent low bidder.

The DVBE Incentive is as follows:

Confirmed DVBE Participation	Incentive
7% and above	5%
6% to 6.99%	4%
5% to 5.99%	3%
4% to 4.99%	2%
3.01% to 3.99%	1%
0% -3%	No incentive – minimum 3% participation required

- .4 The percentage of DVBE Incentive will not exceed 5% and will not exceed \$500,000.00.
- .5 For every bidder qualifying for the DVBE incentive, the amount (dollar value) of the incentive is computed using the qualifying bidder's percentage of DVBE incentive and the lowest responsive and responsible bid price. Calculations to determine adjusted bid price are for consideration only. Bids will be awarded for the actual bid amount as verified by the State.
- .6 A certified Small Business may only be displaced by another certified Small Business with a higher percentage of DVBE participation and a lower adjusted bid price.
 - 1) A certified Small Business shall not be displaced by a non-small business.
 - 2) When applying the DVBE Incentive program, bidders claiming the "Non-Certified Small Business preference" are considered a non-small business.

19. CERTIFICATE OF REPORTED COMPLIANCE – FLEET VEHICLES

- 19.1 For any project using vehicles subject to the California Air Resources Board In-Use Off-Road Diesel Fueled Fleets Regulation, Section 2449(i), Title 12, California Code of Regulations, prior to the execution of a contract, Contractor shall be required to submit copies of the valid Certificates of Reported Compliance (CRC), issued by the California Air Resources Board. CRCs shall be provided for any fleet used by the Contractor or any listed Subcontractors.
- 19.2 CRCs are required for any contract involving the operation of self-propelled off-road diesel vehicles 25 horsepower or greater and most two-engine vehicles owned and operated in California, including vehicles that are rented or leased.
- 19.3 Certificates of Reported Compliance must be retained by the Contractor for three years after the completion of the project.

19.4 If no vehicles subject to the California Air Resources Board In-Use Off-Road Diesel Fueled Fleets Regulation shall be used on a project by the Contractor or any Subcontractor, Contractor shall provide a certification that no vehicles subject to these regulations will be used on the project.

END OF DOCUMENT

REQUEST FOR BIDDING INTERPRETATION (RFBI)

(Email no later than September 24, 2025, 5:00 p.m.)

PMDB RFBI No.: _____

Requestor RFBI No.: _____

Request Date: _____

From (Bidder): _____

To: Richard Kuyper, Project Director
Project Management and Development Branch
Real Estate Services Division
Phone: 279-946-8389

Email: Richard.Kuyper@dgs.ca.gov

Contact: _____

Phone: _____

Fax: _____

Email: _____

All RFBI's received prior to deadline identified above, and responses from the State will be published on <http://www.caleprocure.ca.gov>. Click on "Start Search." In the event name field, enter the project number and click search. While viewing the Event Details, click on "View Event Package" to view RFBI responses.

Project No.: 10039

Project Name: Administration and Annex Building Reroof

Location: Patton, CA

Drawing Reference: _____ **Project Manual Reference:** _____

Question:

Bidder's Authorized Signature: _____

[] Check here if additional pages attached

Page 1 of _____

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

The following requirements supplement Document 00 21 00, Instructions to Bidders:

1. PAYEE DATA RECORD

Add the following to Subarticle 6.2:

Bidders are requested to complete and return the State's Payee Data Record form, Std.204 (and Std. 205 if applicable), included with the Bid Forms. The Payee Data Record form is required in lieu of IRS W-9 when doing business with the State of California, and will be used by the State to prepare tax information returns as stated on the form.

- .1 Completion and submission of the form with the Bid Forms will expedite processing of the Award of Contract.
- .2 Failure to submit the completed form with the Bid will not be cause for rejection of a Bid.
- .3 Forms of all Bidders will be kept on file by the State for use in future awarded Contracts.
- .4 Bidders who have a completed and current Payee Data Record form on file with the Department of General Services, Real Estate Services Division, Contracts Section, may so state on the form and will not be required to submit a duplicate form.
- .5 The form is subject to Section 7(b) of the Privacy Act of 1974 (Public Law 93-5791). Refer to the Privacy Statement on the back of the form.

END OF DOCUMENT

**DISABLED VETERAN BUSINESS ENTERPRISE PARTICIPATION
PROGRAM REQUIREMENTS**

Public Contract Code Section 10115 establishes a contract participation goal of at least three percent (3%) for Disabled Veteran Business Enterprise (DVBE) for State agencies.

DVBE participation is required for this contract. Mandatory participation has been set at 3%. Participation above and beyond the requirement is strongly encouraged. This bid package provides information for the DVBE Participation Program. Bidders must meet DVBE Participation Program requirements to be viewed as a responsive bidder and considered for contract award.

PLEASE READ THESE INSTRUCTIONS CAREFULLY

Bidders must fully comply with DVBE Participation Program requirements. Bidders that do not submit a complete response may find their bid determined to be non-responsive and the bid rejected.

For assistance with meeting the DVBE participation program requirements, please contact:

Department of General Services
Administrative Division
Office of Business and Acquisition Services
Contract Services Section – SB-DVBE Advocate
707 Third Street, MS 508
West Sacramento, CA 95605
Email: OBASAdvocate@dgs.ca.gov

The **Office of Small Business and DVBE Services** (OSDS) offers program information and may be reached at:

Department of General Services
Office of Small Business and DVBE Services (OSDS)
707 3RD Street, 1st Floor, Room 400
West Sacramento, CA 95605-2811

Homepage: [Apply for or Re-Apply for Certification as a Small Business and/or Disabled Veteran Business Enterprise](#)

Receptionist: (916) 375-4940
FAX: (916) 375-4950
Email: OSDSHelp@dgs.ca.gov

Mailing Address:
Office of Small Business and DVBE Services (OSDS)
Room 1-400, MS 210
P.O. Box 989052
West Sacramento, CA 95798-9052

INSTRUCTIONS FOR DVBE PARTICIPATION PROGRAM COMPLIANCE OPTIONS

If for any reason you fail to meet the DVBE Participation Requirement for this bid, your bid will be considered non-responsive.

Meet or exceed the DVBE participation requirements for the proposed contract by one of the following two (2) ways:

1. **DVBE Bidder** - If you are a DVBE bidder, agree to perform the required percentage of the contract bid amount or value with your firm or in combination with other DVBE firms. You **must** write that commitment on Article 9.2 of the Bid Form, Document 00 41 00. Instructions on how to complete this document are on that page.
2. **Non-DVBE Bidder** - If you are a non-DVBE bidder, agree to use other firms for at least the required percentage of the contract bid amount or value. You **must** write that commitment on Article 9.2 of the Bid Form, Document 00 41 00. Instructions on how to complete this document are on that page.

DVBE Certification: OSDS-DVBE certification is the only acceptable certification. To verify if a contractor is certified refer to the Cal eProcure web-site at [The State of California Certifications](#). Bidders must provide certification verification for each participating DVBE bidder, subcontractor, and/or supplier. Applicants for DVBE certification may apply online at [Apply for or Re-Apply for Certification as a Small Business and/or Disabled Veteran Business Enterprise](#). DVBE applicants must submit specific support documentation to the OSDS.

DVBE Bid Incentive: A DVBE Incentive will be granted to Bidders who have achieved DVBE participation exceeding 3% or greater of the value of the bid in accordance with Section 999.5(a) and (d) of the Military and Veterans Code and California Code of Regulations 1896.98 et seq. Refer to Project Manual Document 00 21 00, Article 18.5.

Pursuant to Military and Veterans Code §999.7, the awarding department shall withhold, on a contract entered into on or after January 1, 2021, ten thousand dollars (\$10,000) from the final payment, or the full final payment if less than ten thousand dollars (\$10,000), until a prime contractor complies with the certification requirements of subdivision (d) of Section Military and Veterans Code §999.5. A prime contractor that fails to comply with the certification requirement shall, after notice, be allowed to cure the defect. Notwithstanding any other law, if, after at least 15 calendar days but not more than 30 calendar days from the date of notice, the prime contractor refuses to comply with the certification requirements, the awarding department shall permanently deduct ten thousand dollars (\$10,000) from the final payment, or the full payment if less than ten thousand dollars (\$10,000).

ANSWERS TO FREQUENTLY ASKED QUESTIONS:

The following questions are among the most frequently asked regarding DVBE requirements:

Q: *If I am awarded the contract, am I required to use the subcontractor/supplier proposed in my bid?*

A: Yes, unless you have requested and received approval from the State for substitution. Written requests should include the person's or firm's name to be substituted, the substitution reason, the reason a non-DVBE subcontractor is proposed, if applicable and describe the business to be substituted including its business status as a sole proprietorship, partnership, corporation or other entity and the certification status of the firm, if any. See Title 2, California Code of Regulations, Section 1896.64 (c) & (d) for substitution criteria.

The request and the State's approval or disapproval is not construed as an excuse for non-compliance with any other provision of the law, including but not limited to the Subletting and Subcontracting Fair Practices Act, or any other contract requirements relating to substitution of subcontractors. Failure to adhere to at least the DVBE participation proposed by the successful Contractor may be cause for contract termination and recovery of damages under the rights and remedies due the State for default section of the contract(s) and any other penalties provided for by statute.

Q: *Who notifies the subcontractor when an award is made?*

A: Upon award to a prime Contractor, the Awarding Department notifies listed subcontractors of their contract participation. Primes are encouraged to notify their listed subcontractors immediately after an award is made to formalize their business agreements.

Q: *What happens to bids considered non-responsive to the DVBE Participation Program requirements?*

A: Non-responsive bids are subject to rejection. Many are rejected because of:

- Incomplete documentation
- Documentation not received by bid due date
- Mathematical error related to the percentages

Q: *If I am a disabled veteran business enterprise, can I meet the percentage requirements as a single company?*

A: Yes.

Q: *If my submitted bid meets the contract goal and the State decides to make multiple awards to the bid/contract, could my bid be considered non-responsive?*

A: No. The State's decision to make multiple awards will not jeopardize bid compliance.

END OF DOCUMENT

BID FORM

THE STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES
REAL ESTATE SERVICES DIVISION
PROJECT MANAGEMENT AND DEVELOPMENT BRANCH

FROM: _____
(Name of Bidding Firm)

DELIVER TO: Office of Business and Acquisitions Services BEFORE 2:00 P.M., October 1, 2025
707 Third Street
West Sacramento, CA 95605

FOR: **ADMINISTRATION & ANNEX BUILDING REROOF**
DEPARTMENT OF STATE HOSPITALS
PATTON STATE HOSPITAL
PATTON, SAN BERNARDINO, CALIFORNIA
PROJECT NO.0000000000010039

Plainly mark outside of envelope with "Bid For"; followed by the above title and Project Number.

The undersigned hereby proposes and agrees to furnish all labor, materials, and equipment, and to perform all work required for the above-named Project in the manner and time prescribed in the Drawings and Project Manual, dated March 02, 2025 and such addenda thereto as may be issued prior to bid opening date and in accordance with prevailing wage rates ascertained by the Department of Industrial Relations and set forth on the DIR web site ([Prevailing Wage Requirements](#)) for General Prevailing Wage Rates as determined by the August 2025 DIR prevailing wage published rates. The Bid Price, set forth below in clear legible figures, includes the cost of Bonds, insurance, sales tax, and every other item of expense, direct or indirect, incidental to the Bid Price.

SCHEDULE OF WORK AND PRICES

WORK ITEM	DESCRIPTION	ITEM TOTAL IN FIGURES
1.	Performing all Administration and Annex building reroof work of this Project for the lump sum of:	\$ _____
2.	Performing the roof replacement and remainder work for this Project, not included in Work Item 1 above, for the lump sum of:	\$ _____
3.	Allowance(s) as specified in Section 01 21 00, not included in Work Items 1 or 2 above for the sum of:	\$ <u>50,000.</u>
COMPLETE WORK: Total of Work Items 1,2 and 3 for the lump sum of:		\$ _____

DETERMINATION OF BID: Determination of amount of bid will be on the basis of total sum of Work Items as verified by the State.

IMPORTANT - READ BEFORE SIGNING: Bid Form must be executed in same name-style in which the bidder is licensed. Bidder bidding jointly or as a combination of several business organizations is specially cautioned that such bidder must be jointly licensed in the same form and style in which the bid is executed. If making a bid as a joint venture, each person submitting the bid shall provide the information required below with respect to his or her licensure. The undersigned Bidder certifies and agrees to provide the information and comply with the requirements contained in Articles 1 through 10 on the following pages of the Bid Form. By signing, Bidder swears under penalty of perjury that the conditions of Article 2; Article 4, Paragraph 4.2; Article 7 and Article 9, Paragraph 9.2.1 are true.

Legal Name of Bidder: _____ Federal I.D. No.: _____

Contractor's License No.: _____ License Expiration Date: _____ License Classification: _____

Contractor's Public Works Registration No. (Dept. of Industrial Relations): _____

Contractor's DGS Small Business/DVBE Certification Number: _____

Business Address: _____
(Street and/or P.O. Box) (City) (State) (Zip)

E-Mail Address: _____

Business Telephone No.: _____ Facsimile No.: _____

SIGN HERE -----> _____
Signature of Bidder

Print Name and Title of Bidder

Executed this _____ day of _____, 20____ at _____, California.

ARTICLE 1 – BIDDER'S BUSINESS IDENTIFICATION

THIS BID IS SUBMITTED BY (check one):

☐ Individual

☐ Partnership

☐ Joint Venture

☐ Corporation

State in which Incorporated

NOTE: If Bidder is a corporation, the State in which incorporated shall be inserted above and the legal name of the corporation shall be set forth on Page 1, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if Bidder is a partnership, the true name of the firm shall be set forth on Page 1, together with the signature of a partner authorized to sign contract in behalf of the partnership; and if Bidder is an individual, that person's signature shall be placed on Page 1. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a Power of Attorney must be on file with the Department prior to opening bids or submitted with the bid; otherwise, the bid will be regarded as irregular and unauthorized. If bid is submitted by partnership or joint venture, the members are:

ARTICLE 2 – PREFERENCES AND INCENTIVES

2.1 Small Business Preference - By checking "yes" below, Bidder requests preference as a "Small Business" and further certifies under penalty of perjury, that the firm still meets the requirements of Section 1896 et. seq. Title 2, of the California Code of Regulations, and has either: 1) been approved by the Office of Small Business and Disabled Veteran Business Enterprise (DVBE) Services (OSDS) or; 2) submitted a complete application pursuant to Section 1896.14 to the OSDS by 5:00 p.m. on the bid opening date.

The Legal Name of Bidder and the Bidder's OSDS Certification must be executed in the same name-style in which bidder is licensed. A Bidder bidding jointly or as a combination of several business organizations is specially cautioned that such bidder must be jointly licensed in same form and style in which the bid is executed.

Special attention is directed to Section 1896.16 for penalties for furnishing incorrect supporting information in obtaining preference.

2.1.1 Small Business Preference Claimed? ☐ **Yes** _____ ☐ **No**
(List date filed if not yet certified)

2.2 Non-Small Business Subcontractor Preference - By checking "yes" below Bidder requests preference as a Non-Small Business and agrees to complete and submit Document 00 43 16-2 attached hereto, no later than forty-eight (48) hours after the time of receipt of bids (or the following business day if a weekend or state holiday). Special attention is directed to Section 1896.16 for penalties for furnishing incorrect supporting information in obtaining preference.

2.2.1 Non-Small Business Subcontractor Preference Claimed? ☐ **Yes** ☐ **No**

2.3 Disabled Veteran Business Enterprise Bid Incentive - By checking "yes" below, Bidder certifies and claims credit for achieving 1% or greater of DVBE Participation on this bid as is shown in Article 9 of this bid form and also requests that the corresponding DVBE Incentive be applied to this bid.

2.3.1 DVBE Incentive Claimed? ☐ **Yes** ☐ **No**

ARTICLE 3 – BONDING ASSISTANCE

In the event Bidder has received assistance in obtaining bonding for this Project, Bidder shall set forth name and nature of firm providing such assistance. Should that firm be listed as subcontractor, Bidder shall set forth the percentage of contract to be performed by that subcontractor.

Firm Providing Assistance and Nature of Assistance

Subcontractor: ☐ **Yes** ☐ **No** Percentage _____

ARTICLE 4 – CERTIFICATIONS - BID DEPOSITORY AND FEDERAL COURT FINDINGS

4.1 By signing this Bid Form, Bidder certifies that in preparation of this Bid Form, no bid was received by the bidder from a bid depository, which depository (as to any portion of the work) prohibits or imposes sanctions for the obtaining by bidder, or the submission to bidder by any subcontractor or vendor or supplier of goods and services, of a bid outside the bid depository. This certification shall constitute a warranty, the falsity of which shall entitle the State to pursue any remedy authorized by law, and shall include the right, at the option of the State, of declaring any contract made as a result thereof to be void.

4.2 By signing this Bid Form, Bidder swears under penalty of perjury that representations of the bid with respect to bidder's license are true and that no more than one final un-appealable finding of contempt of court by a Federal Court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a Federal Court which orders the Contractor to comply with an order of the National Labor Relations Board.

4.3 By signing this Bid Form, Bidder acknowledges that in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his employees. The Bidder agrees that they are aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and will comply with such provisions before commencing the performance of the work of this contract.

4.4 By signing this Bid Form, Bidder certifies they will not ask an applicant for onsite construction-related employment to disclose orally or in writing information concerning the conviction history of the applicant on or at the time of an initial employment application.

This section shall not apply to a position for which the person or the state is otherwise required by state or federal law to conduct a conviction history background check or to any contract position with a criminal justice agency, as that term is defined in Section 13101 of the Penal Code.

This section shall not apply to a person to the extent that he or she obtains workers from a hiring hall pursuant to a bona fide collective bargaining agreement.

ARTICLE 5 – STATEMENT OF COMPLIANCE - NONDISCRIMINATION

Bidder (hereinafter referred to as "prospective contractor" in this Statement), by signing this Bid Form, hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f), and CCR, Title 2, Division 4, Chapter 5, Section 8103, in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program; as set forth in the General Conditions of the Contract for Construction. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicants for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), medical disability (cancer), age (over 40), marital status, and denial of family care leave.

ARTICLE 6 – QUESTIONNAIRE

6.1 In accordance with Public Contract Code, Section 10162, the Bidder shall complete the following questionnaire:

6.1.1 Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has a proprietary interest in the Bidder, ever 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?

☐ Yes

☐ No

6.1.2 Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has a proprietary interest in the Bidder, ever received a safety violation or failed to file notifications to the Cal-OSHA, Federal OSHA, or EPA Agencies for employee records as required by CCR, Title 8, Section 5208 and CFR 40, Part 61?

☐ Yes

☐ No

If the answer to either 6.1.1 or 6.1.2 above is "Yes", then give the date(s) of the citation(s) or failure to make notifications, and explain the circumstances by attachment to this Bid Form.

6.2 In order to verify compliance with California Air Resources Board In-Use Off-Road Diesel Fueled Fleets Regulation, Section 2449(i), Title 13, California Code of Regulations, the Bidder shall complete the following questionnaire:

6.2.1. Does the work for the above-named Project involve use of vehicles subject to California Air Resources Board In-Use Off-Road Diesel Fueled Fleets Regulation?

☐ Yes

☐ No

If the answer to 6.2.1 above is "Yes", successful low Bidder shall, prior to the execution of a contract, submit copies of the valid Certificates of Reported Compliance, issued by the California Air Resources Board, for the fleet selected for the contract and listed subcontractors.

ARTICLE 7 – NON-COLLUSION DECLARATION TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

By signing this Bid Form, Bidder, being first duly sworn, deposes and says that he or she is the authorized representative of the Bidder, the party making the foregoing bid, that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and is not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the bid price, or that of any other Bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

ARTICLE 8 – ADDENDA

In submitting this bid, Bidder represents that Bidder has examined copies of all the Contract Documents and acknowledges receipt of the following addenda:

Addendum No.: _____	Date: _____	Addendum No.: _____	Date: _____
Addendum No.: _____	Date: _____	Addendum No.: _____	Date: _____
Addendum No.: _____	Date: _____	Addendum No.: _____	Date: _____

Failure to acknowledge on the Bid Form receipt of an addendum shall not in itself be cause for withdrawal or rejection of bids, if it can be shown that bidder did, in fact, receive such addendum prior to bid opening.

ARTICLE 9 – DVBE COMPLIANCE & PARTICIPATION SUMMARY

9.1 In accordance with Public Contract Code Section 10115, et seq., the Department of General Services has established criteria to implement the DVBE Program Goal as set forth in Document 00 22 10 of the Project Manual. Document 00 22 10, DVBE PARTICIPATION PROGRAM REQUIREMENTS cites the specific percentage of DVBE Participation required for this contract. **Failure to meet this requirement will result in a non-responsive bid.**

If DVBE Participation is a requirement for this bid, Bidder must complete Article 9.2.1 - DVBE PARTICIPATION SUMMARY. Failure to meet the full percentage of required DVBE participation will cause the bid to be deemed non-responsive and the bid will be rejected by the State. Listed DVBE vendor or subcontractor relationships should be first tier.

Any DVBE person, firm, corporation or organization committed by the bidder to fulfill DVBE Participation must: 1) be certified with the OSDS, and; 2) perform or provide a Commercially Useful Function as defined in Military and Veterans Code Section 999. Failure to comply with these requirements will deem the bid non-responsive and the bid will be rejected by the State.

If DVBE participation is set at zero percent, Bidder may still claim DVBE Incentive for voluntary DVBE Participation of 1% or greater. To have DVBE Incentive applied to this bid, Bidder must claim the Incentive in ARTICLE 2.3 - PREFERENCES & INCENTIVES and complete ARTICLE 9.2 - DVBE PARTICIPATION SUMMARY of the Bid Form.

If any DVBE subcontractor will be performing work in excess of 1/2 of 1% of the bid amount, the subcontractor **MUST** be listed under ARTICLE 9.2.1 - DVBE PARTICIPATION SUMMARY.

9.2 DVBE PARTICIPATION SUMMARY

NAME OF BIDDER: _____

Completion Instructions: Capture all required and non-required first tier DVBE Participation in the space below. Identify the proposed work (services, trade or materials) to be completed by the DVBE. List the Company name, contact information, OSDS Certification Number, and the DIR Registration Number. If the Bidder is a DVBE, list only the Bidder's information as 100%; do not list additional subcontractors. Indicate the dollar amount of the work to be performed by each DVBE company and the corresponding percentage of this bid price rounded to two decimals. Add up each Dollar Amount and identify the total on the bottom row marked, TOTAL DVBE PARTICIPATION. Calculate and list the percentage of the bid price this amount represents.

Pursuant to Military and Veterans Code §999.7, the awarding department shall withhold, on a contract entered into on or after January 1, 2021, ten thousand dollars (\$10,000) from the final payment, or the full final payment if less than ten thousand dollars (\$10,000), until a prime contractor complies with the certification requirements of subdivision (d) of Section Military and Veterans Code §999.5. A prime contractor that fails to comply with the certification requirement shall, after notice, be allowed to cure the defect. Notwithstanding any other law, if, after at least 15 calendar days but not more than 30 calendar days from the date of notice, the prime contractor refuses to comply with the certification requirements, the awarding department shall permanently deduct ten thousand dollars (\$10,000) from the final payment, or the full payment if less than ten thousand dollars (\$10,000).

9.2.1 Listed hereinafter is the certified DVBE company(s) proposed to perform work if the contract is awarded to Bidder:

TYPE OF WORK PERFORMED (Service, Trade or Materials)	NAME OF DVBE COMPANY, CONTACT PERSON AND PHONE NUMBER	OSDS CERTIFICATION NUMBER	DIR REGISTRATION NUMBER	DOLLAR AMOUNT OF WORK PERFORMED	PERCENTAGE OF BID PRICE
TOTAL DVBE PARTICIPATION:					

DETERMINATION OF TOTAL DVBE PARTICIPATION: Determination of total DVBE participation will be on the basis of total sum of all listed DVBE above and as verified by the State. When there is a discrepancy between the Dollar Amount and the Percentage of Bid, the higher of the two will prevail.

ARTICLE 10 – LIST OF PROPOSED SUBCONTRACTORS

Listed hereinafter are the **name, location, license number, and registration number** of all subcontractors who will be employed, and the **kind of work** which each will perform if the contract is awarded to the undersigned. I understand that under Public Contract Code Section 4100, et. seq., I must here clearly set forth the name and location of each subcontractor who will perform work or labor or render service to me in or about the construction of the work in an amount in excess of one-half of one percent (1/2 of 1%), of my total bid, and that as to any work in which I fail to do so, I agree to perform that portion myself or be subject to penalty under the act. (Note: In case more than one subcontractor is named for the same kind of work, state the portion that each will perform.) I also understand that listed subcontractors must be registered with the Department of Industrial Relations in order to be listed for and to engage in the performance of work on Public Works projects. Notwithstanding General Conditions Paragraph 1.1, the definition of a **SUBCONTRACTOR** for the purposes of the Subletting and Subcontracting law is as follows: A trade Contractor who is licensed with the Contractors' State License Board with an A, B, C or D classification, as defined pursuant to PCC Section 4113.

- Vendors or suppliers of materials only need not be listed.
- Any DVBE subcontractor performing work in excess of ½ of 1% of the bid amount **MUST** be listed below **AND** under ARTICLE 9.2.1 - DVBE PARTICIPATION SUMMARY.

Failure to list Kind of Work, Name, Location or License Number shall cause the bid to be rejected as non-responsive.

Kind of Work	Name	Location (City)	CSLB License No.	DIR Registration No.

If further space is required below, copy this page and attached hereto to be made a part of the Bid Form. Sub List Page _____ of _____

Pursuant to Public Contract Code section 2010, a person that submits a bid or proposal to, or otherwise proposes to enter into or renew a contract with, a state agency with respect to any contract in the amount of \$100,000 or above shall certify, under penalty of perjury, at the time the bid or proposal is submitted or the contract is renewed, all of the following:

1. **CALIFORNIA CIVIL RIGHTS LAWS:** For contracts executed or renewed after January 1, 2017, the contractor certifies compliance with the Unruh Civil Rights Act (Section 51 of the Civil Code) and the Fair Employment and Housing Act (Section 12960 of the Government Code); and
2. **EMPLOYER DISCRIMINATORY POLICIES:** For contracts executed or renewed after January 1, 2017, if a Contractor has an internal policy against a sovereign nation or peoples recognized by the United States government, the Contractor certifies that such policies are not used in violation of the Unruh Civil Rights Act (Section 51 of the Civil Code) or the Fair Employment and Housing Act (Section 12960 of the Government Code).

CERTIFICATION

I, the official named below, certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Proposer/Bidder Firm Name (Printed)	Federal ID Number
By (Authorized Signature)	
Printed Name and Title of Person Signing	
Executed in the County of	Executed in the State of
Date Executed	

NONCOLLUSION DECLARATION TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

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

Signed

END OF DOCUMENT

BIDDER'S BOND

STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES

KNOW ALL MEN BY THESE PRESENTS:

That we,

_____, as Principal,
and _____

as Surety, are held and firmly bound unto the State of California, hereinafter called the State, in the penal sum of ten percent (10%) of the total amount of the bid of the Principal above named, submitted by said Principal to the State of California, Department of General Services, for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION of this obligation is such that:

WHEREAS, the Principal has submitted the above-mentioned bid to the State of California, Department of General Services, for certain construction specifically described as follows, for which bids are to be opened at _____

(Insert place where bids will be opened) on _____ (Insert date of bid opening)
for _____

(Copy here the exact description of work, including location, as it appears on the proposal)

NOW, THEREFORE, If the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files the two bonds with the Department, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

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

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this _____ day of _____, 20____.

(SEAL)

(SEAL)

(SEAL)

Name of Principal and Address for Service

By _____

Contractor Signature

(SEAL)

(SEAL)

(SEAL)

Name of Surety and Address for Service

By _____

Attorney-in-Fact Signature

NOTE: Signatures of those executing for the Surety must be properly acknowledged.

CERTIFICATE OF ACKNOWLEDGMENT

STATE OF CALIFORNIA

COUNTY OF _____ ss

On this _____ day of _____ in the year of 20____ before me, a notary public in and for the county and state aforesaid, personally appeared, _____ and proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and proved to me on the basis of satisfactory evidence to be the attorney-in-fact of _____ and acknowledged to me that he/she subscribed the name of the said company thereto as surety, and his/her own name as attorney-in-fact.

(SEAL)

Notary Public

DOCUMENT 00 43 16-1

LIST OF CERTIFIED SMALL BUSINESS SUBCONTRACTOR(S)

COMPLETION INSTRUCTIONS
PLEASE READ THESE INSTRUCTION CAREFULLY

IN ORDER TO GRANT A FIVE PERCENT (5%) NON-SMALL BUSINESS SUBCONTRACTOR PREFERENCE TO A NON-SMALL BUSINESS, THE BIDDER MUST COMPLETE THE CERTIFIED SMALL BUSINESS SUBCONTRACTOR SUMMARY (CSBSS) FORM 00 43 16-2. THIS FORM **MUST** BE COMPLETED BY THE NON-SMALL BUSINESS BIDDER AND RETURNED TO THE AWARDING AGENCY NO LATER THAN FORTY-EIGHT (48) HOURS AFTER THE TIME OF RECEIPT OF BIDS. IF THE BIDDER FAILS TO RETURN THE COMPLETED FORM 00 43 16-2 WITHIN 48 HOURS, THE CLAIM FOR SMALL BUSINESS PREFERENCE WILL BE DENIED.

CSBS COMPANY NAME – list the name(s) of the certified small business subcontractor(s) to be used to complete this project.

CSBS COMPANY ADDRESS – list the address(es) of the certified small business subcontractor(s) to be used to complete this project.

CSBS COMPANY TELEPHONE NUMBER – list the telephone number(s) of the certified small business subcontractor(s) to be used to complete this project.

CSBS PERCENTAGE (%) OR DOLLAR (\$) AMOUNT – list the percentage(s) or dollar amount(s) that will be given to the certified small business subcontractor(s) used to complete this project.

DESCRIPTION OF WORK – identify the proposed work including services or materials to be performed by the certified small business subcontractor(s) to complete this project.

TO OBTAIN THE 5% NON-CERTIFIED SMALL BUSINESS PREFERENCE, THE LISTED SUBCONTRACTOR(S) AND/OR SUPPLIER(S) FIRM(S) MUST BE FORMALLY CERTIFIED BY THE OFFICE OF SMALL BUSINESS AND DVBE CERTIFICATION (OSDC) AS A SMALL AND/OR MICROBUSINESS. (Prime contractors should ask Subcontractor/Supplier to provide them with a copy of their OSDC certification letter)

CERTIFIED SMALL BUSINESS SUBCONTRACTOR(S) SUMMARY

BIDDER NAME _____

PROJECT NUMBER _____

STATE OF CALIFORNIA
CERTIFIED SMALL BUSINESS SUBCONTRACTOR(S) SUMMARY

Form date 09/28/2004

Listed hereinafter is the **name of business, address, telephone number, dollar amount or percentage** of all certified subcontractors who will be employed, and the **description of the work** which each will perform if the contract is awarded to this bidder.

Failure to list name of business, address, telephone number, description of work to be performed and dollar amount or percentage of work for each subcontractor may be cause for denial of the non-small business subcontractor preference.

(If further space is required for the List of Proposed Subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of the Bid).

CERTIFIED SMALL BUSINESS SUBCONTRACTOR (Name of Business)	CERTIFIED SMALL BUSINESS SUBCONTRACTOR (Address)	CERTIFIED SMALL BUSINESS SUBCONTRACTOR (Telephone Number)	CERTIFIED SMALL BUSINESS SUBCONTRACTOR (\$ or % Amount)	CERTIFIED SMALL BUSINESS SUBCONTRACTOR (Description of Work) (Service or Materials)

CERTIFIED SMALL BUSINESS SUBCONTRACTOR(S) SUMMARY

PAYEE DATA RECORD

(Required when receiving payment from the State of California in lieu of IRS W-9 or W-7)

STD 204 (Rev. 03/2021)

Section 1 - Payee Information**NAME** (This is required. Do not leave this line blank. Must match the payee's federal tax return)**BUSINESS NAME, DBA NAME or DISREGARDED SINGLE MEMBER LLC NAME** (if different from above)**MAILING ADDRESS** (number, street, apt. or suite no.) (See instructions on Page 2)**CITY, STATE, ZIP CODE****E-MAIL ADDRESS****Section 2 - Entity Type**

Check one (1) box only that matches the entity type of the Payee listed in Section 1 above. (See instructions on page 2)

☐ **SOLE PROPRIETOR / INDIVIDUAL**☐ **SINGLE MEMBER LLC** Disregarded Entity owned by an Individual☐ **PARTNERSHIP**☐ **ESTATE OR TRUST**☐ **CORPORATION** (see instructions on page 2)☐ **MEDICAL** (e.g., dentistry, chiropractic, etc.)☐ **LEGAL** (e.g., attorney services)☐ **EXEMPT** (e.g., nonprofit)☐ **ALL OTHERS****Section 3 - Tax Identification Number**Enter your Tax Identification Number (TIN) in the appropriate box. The TIN must match the name given in Section 1 of this form. Do not provide more than one (1) TIN. The TIN is a 9-digit number. **Note:** Payment will not be processed without a TIN.**Social Security Number (SSN) or Individual Tax Identification Number (ITIN)**• For **Individuals**, enter SSN.• If you are a **Resident Alien**, and you do not have and are not eligible to get an SSN, enter your ITIN.

• Grantor Trusts (such as a Revocable Living Trust while the grantors are alive) may not have a separate FEIN. Those trusts must enter the individual grantor's SSN.

• For **Sole Proprietor or Single Member LLC (disregarded entity)**, in which the sole member is an individual, enter SSN (ITIN if applicable) or FEIN (FTB prefers SSN).• For **Single Member LLC (disregarded entity)**, in which the sole member is a business entity, enter the owner entity's FEIN. Do not use the disregarded entity's FEIN.

• For all other entities including LLC that is taxed as a corporation or partnership, estates/trusts (with FEINs), enter the entity's FEIN.

OR

Federal Employer Identification Number (FEIN)**Section 4 - Payee Residency Status (See instructions)**☐ **CALIFORNIA RESIDENT** - Qualified to do business in California or maintains a permanent place of business in California.☐ **CALIFORNIA NONRESIDENT** - Payments to nonresidents for services may be subject to state income tax withholding.☐ No services performed in California☐ Copy of Franchise Tax Board waiver of state withholding is attached.**Section 5 - Certification***I hereby certify under penalty of perjury that the information provided on this document is true and correct. Should my residency status change, I will promptly notify the state agency below.***NAME OF AUTHORIZED PAYEE REPRESENTATIVE****TITLE****E-MAIL ADDRESS****SIGNATURE****DATE****TELEPHONE** (include area code)**Section 6 - Paying State Agency**

Please return completed form to:

STATE AGENCY/DEPARTMENT OFFICE

Department of General Services, Administrative Division

UNIT/SECTION

Office of Business and Acquisition Services, Contract Services Section

MAILING ADDRESS

707 Third Street, MS 508

FAX

n/a

TELEPHONE (include area code)

n/a

CITY

West Sacramento

STATE

CA

ZIP CODE

95605

E-MAIL ADDRESS

n/a

PAYEE DATA RECORD

RESDMSTR: 7.8.2021

00 45 46 - 1

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PAYEE DATA RECORD

(Required when receiving payment from the State of California in lieu of IRS W-9 or W-7)

STD 204 (Rev. 03/2021)

GENERAL INSTRUCTIONS

Type or print the information on the Payee Data Record, STD 204 form. Sign, date, and return to the state agency/department office address shown in Section 6. Prompt return of this fully completed form will prevent delays when processing payments.

Information provided in this form will be used by California state agencies/departments to prepare Information Returns (Form 1099).

NOTE: Completion of this form is optional for Government entities, i.e. federal, state, local, and special districts.

A completed Payee Data Record, STD 204 form, is required for all payees (non-governmental entities or individuals) entering into a transaction that may lead to a payment from the state. Each state agency requires a completed, signed, and dated STD 204 on file; therefore, it is possible for you to receive this form from multiple state agencies with which you do business.

Payees who do not wish to complete the STD 204 may elect not to do business with the state. If the payee does not complete the STD 204 and the required payee data is not otherwise provided, payment may be reduced for federal and state backup withholding. Amounts reported on Information Returns (Form 1099) are in accordance with the Internal Revenue Code (IRC) and the California Revenue and Taxation Code (R&TC).

Section 1 – Payee Information

Name – Enter the name that appears on the payee's federal tax return. The name provided shall be the tax liable party and is subject to IRS TIN matching (when applicable).

- Sole Proprietor/Individual/Revocable Trusts – enter the name shown on your federal tax return.
- Single Member Limited Liability Companies (LLCs) that is disregarded as an entity separate from its owner for federal tax purposes - enter the name of the individual or business entity that is tax liable for the business in section 1. Enter the DBA, LLC name, trade, or fictitious name under Business Name.
- Note: for the State of California tax purposes, a Single Member LLC is not disregarded from its owner, even if they may be disregarded at the Federal level.
- Partnerships, Estates/Trusts, or Corporations – enter the entity name as shown on the entity's federal tax return. The name provided in Section 1 must match to the TIN provided in section 3. Enter any DBA, trade, or fictitious business names under Business Name.

Business Name – Enter the business name, DBA name, trade or fictitious name, or disregarded LLC name.

Mailing Address – The mailing address is the address where the payee will receive information returns. Use form STD 205, Payee Data Record Supplement to provide a remittance address if different from the mailing address for information returns, or make subsequent changes to the remittance address.

Section 2 – Entity Type

If the Payee in Section 1 is a(n)...	THEN Select the Box for...
Individual • Sole Proprietorship • Grantor (Revocable Living) Trust disregarded for federal tax purposes	Sole Proprietor/Individual
Limited Liability Company (LLC) owned by an individual and is disregarded for federal tax purposes	Single Member LLC-owned by an individual
Partnerships • Limited Liability Partnerships (LLP) • and, LLC treated as a Partnership	Partnerships
Estate • Trust (other than disregarded Grantor Trust)	Estate or Trust
Corporation that is medical in nature (e.g., medical and healthcare services, physician care, nursery care, dentistry, etc.) • LLC that is to be taxed like a Corporation and is medical in nature	Corporation-Medical
Corporation that is legal in nature (e.g., services of attorneys, arbitrators, notary publics involving legal or law related matters, etc.) • LLC that is to be taxed like a Corporation and is legal in nature	Corporation-Legal
Corporation that qualifies for an Exempt status, including 501(c) 3 and domestic non-profit corporations.	Corporation-Exempt
Corporation that does not meet the qualifications of any of the other corporation types listed above • LLC that is to be taxed as a Corporation and does not meet any of the other corporation types listed above	Corporation-All Other

Section 3 – Tax Identification Number

The State of California requires that all parties entering into business transactions that may lead to payment(s) from the state provide their Taxpayer Identification Number (TIN). The TIN is required by R&TC sections 18646 and 18661 to facilitate tax compliance enforcement activities and preparation of Form 1099 and other information returns as required by the IRC section 6109(a) and R&TC section 18662 and its regulations.

Section 4 – Payee Residency Status

Are you a California resident or nonresident?

- A corporation will be defined as a "resident" if it has a permanent place of business in California or is qualified through the Secretary of State to do business in California.
- A partnership is considered a resident partnership if it has a permanent place of business in California.
- An estate is a resident if the decedent was a California resident at time of death.
- A trust is a resident if at least one trustee is a California resident.
 - For individuals and sole proprietors, the term "resident" includes every individual who is in California for other than a temporary or transitory purpose and any individual domiciled in California who is absent for a temporary or transitory purpose. Generally, an individual who comes to California for a purpose that will extend over a long or indefinite period will be considered a resident. However, an individual who comes to perform a particular contract of short duration will be considered a nonresident.

For information on Nonresident Withholding, contact the Franchise Tax Board at the numbers listed below:

Withholding Services and Compliance Section: 1-888-792-4900

E-mail address: wscs.gen@ftb.ca.gov

For hearing impaired with TDD, call: 1-800-822-6268

Website: www.ftb.ca.gov

Section 5 – Certification

Provide the name, title, email address, signature, and telephone number of individual completing this form and date completed. In the event that a SSN or ITIN is provided, the individual identified as the tax liable party must certify the form. Note: the signer may differ from the tax liable party in this situation if the signer can provide a power of attorney documented for the individual.

Section 6 – Paying State Agency

This section must be completed by the state agency/department requesting the STD 204.

Privacy Statement

Section 7(b) of the Privacy Act of 1974 (Public Law 93-579) requires that any federal, state, or local governmental agency, which requests an individual to disclose their social security account number, shall inform that individual whether that disclosure is mandatory or voluntary, by which statutory or other authority such number is solicited, and what uses will be made of it. It is mandatory to furnish the information requested. Federal law requires that payment for which the requested information is not provided is subject to federal backup withholding and state law imposes noncompliance penalties of up to \$20,000. You have the right to access records containing your personal information, such as your SSN. To exercise that right, please contact the business services unit or the accounts payable unit of the state agency(ies) with which you transact that business.

All questions should be referred to the requesting state agency listed on the bottom front of this form.

PAYEE DATA RECORD

RESDMSTR: 7.8.2021

00 45 46 - 2

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STANDARD AGREEMENT

STD 213 (Rev. 03/2019)

AGREEMENT NUMBER

PURCHASING AUTHORITY NUMBER (if applicable)

1. This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY

NAM
E

Department of General Services, Real Estate Services Division, Project Management and Development Branch

2.The Term of this Agreement is:

CONTRACTOR NAME

As Identified in the Notice to Proceed

START DATE
THROUGH END DATE

XXX Calendar Days, commencing on the Start Date Identified in the Notice to Proceed

3.The maximum amount of this Agreement is: \$X.XXX.XXX.XX

	TITLE	PAGES
Project Title	Project Title Client Address City, County, CA Project Number	
Exhibit A	Performance Bond, Payment Bond, Bid Form, and Invitation to Bid	
Exhibit B	Project Manual (except Bidding Requirements), dated XXX including the following Contract Documents: Introductory Information General Conditions of the Contract for Construction Supplementary Conditions Specifications Addenda No.	
Exhibit C	XXX Drawings, dated XXX, as listed in Document 00 01 15 of the Project Manual	

4. The parties agree to comply with the terms and conditions of the following exhibits, which are by this reference made a part of the Agreement.

EXHIBITS

Items shown with an asterisk (*), are here by incorporated by reference and made part of this agreement as if attached hereto.
These documents can be viewed at <https://www.dgs.ca.gov/ols/resources>

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.

CONTRACTOR

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

CONTRACTOR BUSINESS ADDRESS	CITY	STATE	ZIP
PRINTED NAME OF PERSON SIGNING	TITLE		
CONTRACTOR AUTHORIZED SIGNATURE	DATE SIGNED		

STATE OF CALIFORNIA

CONTRACTING AGENCY NAME

CONTRACTING AGENCY ADDRESS	CITY	STATE	ZIP
PRINTED NAME OF PERSON SIGNING	TITLE		
CONTRACTOR AUTHORIZED SIGNATURE	DATE SIGNED		

CALIFORNIA DEPARTMENT OF GENERAL SERVICES APPROVAL

EXEMPTION, IF APPLICABLE

SAMPLE

PERFORMANCE BOND TO ACCOMPANY CONSTRUCTION CONTRACT

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, The State of California, acting by and through the Department of General Services has awarded to _____, a _____ existing under and by virtue of the laws of the State of California as Contractor, a contract for the work described as follows:

Project Name
Client Agency
Project Information
Reference Number, Project Number, Contract Number

AND WHEREAS, Said Contractor is required to furnish a bond in connection with said contract, guaranteeing the faithful performance thereof;

NOW, THEREFORE, We the undersigned Contractor and surety are held and firmly bound unto the State of California in the sum of _____ Dollars, (\$000,000) to be paid to the State 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 and assigns, jointly and severally firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if the above bounded 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 foregoing contract and any alteration thereof made as therein provided, on his or their part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the State of California, its officers and agents, as therein stipulated, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this _____ day of _____, 20____

Name of Contractor and Address for Service

By _____
Contractor Signature

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

Name of Surety and Address for Service (SEAL)

By _____
Attorney-in-Fact Signature

CERTIFICATE OF ACKNOWLEDGMENT

STATE OF CALIFORNIA
COUNTY OF _____ ss

On this _____ day of _____ in the year of 20____ before me, a notary public in and for the county and state aforesaid, personally appeared, _____ proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and proved to me on the basis of satisfactory evidence to be the attorney-in-fact of _____ and acknowledged to me that he/she subscribed the name of the said company thereto as surety, and his/her own name as attorney-in-fact.
(SEAL)

NOTARY PUBLIC

PAYMENT BOND TO ACCOMPANY CONSTRUCTION CONTRACT
(Public Contract Code Sections 7103 and 10221)

BOND NO. _____

The premium on this bond is _____ for the term of _____ Agreement Number 20-XXXX

Know All Men By These Presents:

That the State of California, acting by and through the Department of General Services _____, has awarded to _____ whose address for service is _____, as Principal, a contract for the work described as follows:

Project Title: _____

Project Location: _____

WHEREAS, the provisions of Public Contract Code Sections 7103 and 10221 require that the Principal file a bond in connection with said contract and this bond is executed and tendered in accordance therewith.

NOW THEREFORE, Principal and _____, a Surety Corporation organized under the laws of _____, and authorized to transact a general surety business in the State of California, as Surety, are held and firmly bound to the People of the State of California in the penal sum of _____, for which payment we bind ourselves, our heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

1. That if said Principal or its subcontractors shall fail to pay any of the persons named in Civil Code Section 9100, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal and subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the surety herein will pay for the same, otherwise this obligation is to be void. In case suit is brought upon this bond, the Surety will pay a reasonable attorney's fee to be fixed by the court.
2. This bond shall inure to the benefit of any persons named in Civil Code Section 9100 as to give a right of action to such persons or their assigned in any suit brought upon this bond.
3. The aggregate liability of the Surety hereunder, including costs and attorney fees, on all claims whatsoever shall not exceed the penal sum of the bond in accordance with the provisions of Section 996.470(a) of the Code of Civil Procedure.
4. This bond is executed by the Surety, to comply with the provisions of Public Contract Code Sections 7103, 10221 and 10222, of Chapter 5, Title 3, Part 6, Division 4 of the Civil Code and of Chapter 2, Title 14, Part 2 of the Code of Civil Procedure and said bond shall be subject to all of the terms and provisions thereof.
5. This bond may be cancelled by the Surety in accordance with the provisions of Section 996.310 et seq. of the Code of Civil Procedure.
6. This bond to become effective _____

(NAME OF SURETY)

(ADDRESS FOR SERVICE)

I certify (or declare) under penalty of perjury under the laws of the State of California that I have executed the foregoing bond under an unrevoked power of attorney.

Executed in _____ on _____
(CITY AND STATE) (DATE)

X

(SIGNATURE OF ATTORNEY IN FACT)

(PRINTED OR TYPED NAME OF ATTORNEY IN FACT)

Change Order

Date Issued: (Type Date)

Change Order No: _____

From Division: **Real Estate Services Division**
 Branch: **Project Management and Development Branch**
 Address: **707 Third Street, 4th Floor**
 City, State Zip: **West Sacramento, CA 95605**

ABMS Contract No: _____
 F\$ Contract No.: _____
 Project ID: **DGS000000XXXXXX**
 Activity ID: **CN**
 Resource Type: **CONTR**
 Category: **10000**

Revision No.: _____
 Date Revised: _____

To: (Contractor's Name:) _____
 (Contractor's Address:) _____
 (Contractor's City/State/Zip:) _____

Project: _____
 Client Agency: _____
 Facility Name: _____
 Facility Location: _____

This Change Order is issued pursuant to the provisions of the General Conditions Article 6 of the Contract relating to **Changes in the Work** and shall not be effective until approved by the Department of General Services, REAL ESTATE SERVICES DIVISION. The State will issue the change order after the conditions have been agreed to. The contractor is directed to proceed with construction activities in such manner as to preclude the necessity for later altering the work in order to accomplish this change. This document must be completed in every detail, signed, dated and returned in **DUPLICATE** to the State's representative within **fifteen (15)** calendar days from the date of issue, as provided in the General Conditions of the Contract. Upon approval, a signed copy will be sent to the contractor as authority for proceeding with the changes (or as confirmation of previously issued instructions).

Change Order Description

<u>Item #</u>	<u>Description</u>	<u>Amount</u>
		<i>Total this Change Order</i>
		\$100,000.00

The Undersigned Contractor agrees to make this change in accordance with the printed conditions herein for
 The Additive sum of \$ _____ or deductive sum (\$ _____).

This change is approved for the sum stated above and for a time extension of _____ calendar days.

This Agreement constitutes full and final settlement for all aspects of the work described herein. As part of this agreement, Contractor waives any and all rights to claim for any delay or impact costs associated with the work described herein, including, but not limited to, inefficiency, unabsorbed and extended home office overhead and extended field office overhead.

Authorized Contractor's Signature	Title	Date
Authorized State's Representative Signature	Title	Date

Distribution of Change Order:

Originals to: 1) Contractor 2) RESD Contract Unit

Copies to: 1) *Project Manager* 2) *State Controllers Office* 3) *DGS Capital Outlay Account* 4) *State Inspector*

SAMPLE



Document 00 72 00

General Conditions of the Contract for Construction

October 2011 Edition

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DOCUMENT 00 72 00 - GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

ARTICLE 1 - GENERAL PROVISIONS

1.1 **DEFINITIONS:** When the following terms appear in the Contract, they shall have the following meaning:

1.1.1 Acceptance of the Work: Written acceptance of the Work by the Director of the Department of General Services, State of California, or the Director's designee.

1.1.2 Act of God: An Act of God shall include only the following occurrences or conditions and effects:

- .1 Earthquakes in excess of a magnitude of 3.5 on the Richter Scale; or
- .2 Tidal waves.

1.1.3 Addendum (Addenda): A document issued by the State during the bidding period which modifies, supersedes or supplements the Contract Documents.

1.1.4 Alternative: Refer to Approved Equal and Substitution.

1.1.5 Applicable Codes: Include, but are not limited to, applicable laws, statutes, regulations, rules, building and other codes, ordinances, rulings, and lawful orders of all public authorities having jurisdiction over the State, the Contractor, Subcontractors, the Project, the Work, or the execution of the Work.

1.1.6 Approved Equal: Material, equipment, or method approved by the State for use in the Work, as being acceptable as an equivalent in essential attributes to the material, equipment, or method specified in the Contract Documents.

1.1.7 Agreement: The written and executed document known as Document 00 52 00, Agreement.

1.1.8 Architect or Engineer: The State, or the State's consultant listed in the Contract Documents as the designer of record responsible for the preparation and coordination of the Drawings and technical sections of the Project Manual.

1.1.9 Beneficial Occupancy: Occupancy and use by the State of all, or part, or parts, of the Work as selected by the State, prior to Completion.

1.1.10 Bidder: Any individual, partnership, corporation, association, joint venture, or any combination thereof, submitting a Bid Form for the Work.

1.1.11 Change Order: A written order issued by the State used to determine adjustments in the Contract based on:

- .1 a change in the Work,
- .2 the amount of the adjustment in the Contract Sum, and
- .3 the extent of the adjustment in the Contract Time.

1.1.12 Claim: An unresolved Dispute arising under or relating to the performance of the Contract which can only be filed after Acceptance of the Work and the final statement to the Contractor.

1.1.13 Completion: When the entire Work has been performed in accordance with the Contract requirements as delineated in the Contract Documents and Project Manual. Completion of the Work occurs when the State's final inspection has been made and all construction, services and deliverables have been fully executed as determined by the State's Representative, including but not limited to completion of all punch-list items and delivery of as-built drawings, operation & maintenance manuals, guaranties, warranties, spare parts, reports and certifications as noted in the Project Manual, Section 01 77 00.

1.1.14 Contract: The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified by a Change Order. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the State and the Contractor.

- 1.1.15 Contract Documents: The Contract Documents consist of the Agreement between the State and Contractor, Payment and Performance Bonds; the Conditions of the Contract, including General, Supplementary and other Conditions; Drawings, Specifications, Addenda and Change Orders.
- 1.1.16 Contract Sum: The Contract Sum is stated in the Agreement and, including authorized adjustments by Change Order, is the total amount payable by the State to the Contractor for performance of the Work under the Contract Documents.
- 1.1.17 Contract Time: The Contract Time is the period of time, from the Start Date to the date of Completion of the Work, including authorized adjustments, allotted in the Contract.
- 1.1.18 Contractor: The individual, partnership, corporation, association, joint venture, or any combination thereof, who has entered into a contract with the State, identified as such in the Agreement, and referred to throughout the Contract as if singular in number. The term "Contractor" means the Contractor or the Contractor's representative.
- 1.1.19 Day: Calendar day, unless otherwise specifically defined.
- 1.1.20 Department: The Department of General Services, State of California.
- 1.1.21 Director: The Director of the Department of General Services, State of California, or the Director's designee.
- 1.1.22 Dispute: A demand during performance of the Work seeking adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract. A Dispute is not a Claim.
- 1.1.23 Drawings: The graphic and pictorial portions of the Contract Documents, illustrating the design, location and dimensions of the Work, generally including but not limited to, plans, elevations, sections, details, schedules and diagrams.
- 1.1.24 Emergency: A sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services.
- 1.1.25 General Notes: The written instructions, provisions, conditions or other requirements appearing on the Drawings, and so identified thereon, which pertain to the performance of the Work.
- 1.1.26 Guarantee: The Contractor's assurance that the Project complies with the requirements of the Contract Documents.
- 1.1.27 Official Progress Schedule: The Contractor's baseline schedule and updates accepted by the State.
- 1.1.28 Or Equal: Refer to Approved Equal.
- 1.1.29 Owner: The State of California.
- 1.1.30 Product Data: Illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- 1.1.31 Project: The total construction of which the Work performed under the Contract may be the whole or a part.
- 1.1.32 Project Manual: The volume(s) assembled for the Work which includes the Introductory Information, Bidding Requirements, Contracting Requirements, Specifications, and other information as may be listed in the Project Manual Table of Contents.
- 1.1.33 Request for Information (RFI): A written request by the Contractor submitted in a State provided format for information regarding Project specific issues.
- 1.1.34 Retention: A percentage of the Contract Sum held back upon completion of the Work, or any portion of the Work, to cover outstanding liabilities, contingencies, and the like, as specified in the Contract Documents.
- 1.1.35 Samples: Physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

- 1.1.36 **Schedule of Values:** A document furnished by the Contractor to the State reflecting the portions of the Contract sum allotted for the various parts of the Work, and used as the basis for reviewing the Contractor's applications for payment request.
- 1.1.37 **Shop Drawings:** Drawings, diagrams, schedules, and other data specially issued for the Work by the Contractor or a Subcontractor, Sub-subcontractor, and material suppliers to illustrate some portion of the Work.
- 1.1.38 **Specifications:** That portion of the Contract Documents consisting of the written requirements for materials, standards, equipment, construction systems, and standards of workmanship for the Work, and performance of related services.
- 1.1.39 **State:** The State of California acting through the Department of General Services.
- 1.1.40 **State Construction Supervisor/Inspector:** The person(s) authorized by the State to provide inspection services, field coordination and quality control during construction.
- 1.1.41 **State Contract Act:** The act which is set forth in the California Public Contract Code, Section 10100, et seq.
- 1.1.42 **State's Representative:** Person(s) authorized by the State to act on behalf of the State for the Project.
- 1.1.43 **Subcontractor:** An individual, partnership, corporation, association, joint venture, or any combination thereof, who has a direct contract with the Contractor to perform work or labor or render service in or about the Work. The term "Subcontractor" is referred to as if singular in number and means a Subcontractor or a representative of the Subcontractor. The term "Subcontractor" shall not include those who supply materials only or a separate contractor or subcontractors of a separate contractor.
- 1.1.44 **Sub-subcontractor:** A person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the work. The term "Sub-subcontractor" is referred to as if singular in number and means a Sub-subcontractor or a representative of the Sub-subcontractor.
- 1.1.45 **Not Used**
- 1.1.46 **Substitution:** A material and/or process offered by the Contractor in lieu of the specified material and/or process, and accepted by the State in writing as being equivalent (equal) to the specified material and/or process.
- 1.1.47 **Warranty:** A Contractor's, manufacturer's or material supplier's assurance that products and services provided meet the requirements of the Contract Documents.
- 1.1.48 **Work:** Construction, services and deliverables required by the Contract Documents and Project Manual, including labor, materials, equipment, services, and documents provided or to be provided by the Contractor to fulfill the Contractor's obligations under the Contract, including but not limited to requirements such as; completion of punch-list items, as-built drawings, operation & maintenance manuals, guaranties, warranties, spare parts, reports, and certifications.

1.2 EXECUTION, CORRELATION AND INTENT

- 1.2.1 The Contract will not be binding on the State until appropriately endorsed by the State's legal Representative, in accordance with Public Contract Code, Section 10220.
- 1.2.2 Execution of the Contract by the Contractor is a representation that the Contractor is familiar with the methodology under which the work is to be performed and has correlated personal observations with requirements of the Contract Documents.
- 1.2.3 The intent of the Contract Documents is to include items necessary for 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 intended results.
- 1.2.4 Organization of the Specifications into Groups, Divisions, subgroups, Sections and Articles, and arrangement of Drawings shall not be the basis that Contractor utilizes in dividing the Work among Subcontractors, nor in establishing the extent of work to be performed by any trade.

1.2.5 When standards of the Federal Government, trade societies, or trade associations are referred to in the Contract Documents by specific date of issue, these shall be considered as part of the Contract Documents. When such references do not bear date of issue, current published edition at the date of the first Invitation to Bid shall be considered as part of the Contract Documents.

1.2.6 Unless otherwise stated in the Contract Documents, words and terms which have well-known or commonly accepted technical or construction industry meanings shall be used in the Contract Documents in accordance with such recognized meanings.

1.2.7 Every part of the Work shall be accomplished in workmanship-like manner by workers, laborers, or mechanics specially skilled in the class of work required. Any person the State may deem incompetent or disorderly shall be promptly removed from the Project by the Contractor upon written notice from the State, and shall not be re-employed on this Project.

1.3 **USE OF THE STATE'S DRAWINGS, PROJECT MANUAL AND OTHER DOCUMENTS:** The Drawings, Project Manual and other documents issued by the State, and copies furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects, nor for additions to this Project outside the scope of the Work without the specific written consent of the State. The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are granted a limited license to use and reproduce applicable portions of the Drawings, Project Manual and other documents issued by the State appropriate to, and for use in, the execution of their work under the requirements of the Contract Documents.

1.4 CAPITALIZATION

1.4.1 Terms capitalized in the General Conditions of the Contract for Construction include those which are:

- .1 Specifically defined; or
- .2 Titles of numbered Articles; or
- .3 References to Paragraphs, Subparagraphs and Clauses; or
- .4 Titles of other documents.

1.5 CONFLICTS IN THE CONTRACT DOCUMENTS

1.5.1 In the event of conflict in the Contract Documents, the following priorities shall govern:

- .1 Addenda shall govern over other Sections of the Contract Documents to the extent specifically noted; subsequent Addenda shall govern over prior Addenda only to the extent specified.
- .2 The General Conditions of the Contract for Construction shall govern over Drawings and Specifications except for specific modifications stated in the Supplementary Conditions, and except for Addenda.
- .3 In case of conflict between the Drawings and the Specifications, the Specifications shall govern unless the requirement(s) in the Drawings is/are more stringent and/or of higher quality and/or of higher quantity.
- .4 In the case of conflict within the Drawings, the following shall govern:
 - 1) Schedules, when identified as such, shall govern over all other portions of the Drawings.
 - 2) Specific notes shall govern over other notes and all other portions of the Drawings, except schedules described in the preceding Clause.
 - 3) Larger scale Drawings shall govern over smaller scale Drawings.
 - 4) Detail Drawings shall govern over standard plates bound within the Project Manual.
 - 5) Figured or numerical dimensions shall govern over dimensions obtained by scaling.

1.5.2 Omissions: If the Contract Documents are not complete as to any minor detail or required construction system or with regard to the manner of combining or installing of parts, materials, or equipment, but there exists accepted trade standard for good and workmanlike construction, such detail shall be deemed to have been implied by the requirements of the Contract Documents in accordance with such standard.

- .1 "Minor Detail" shall include the concept of substantially identical components, where price of each such component is small even though aggregate cost or importance is substantial, and shall include a single component which is incidental, even though its cost or importance may be substantial. Quality and quantity of parts or material so supplied shall conform to trade standards and be compatible with type, composition, strength, size and profile of parts or materials otherwise set forth in the Contract Documents.

1.6 REQUESTS FOR INFORMATION, CLARIFICATION OR ADDITIONAL INSTRUCTIONS

1.6.1 Requests for Information (RFI): Should the Contractor discover conflicts, omissions, or errors in the Contract Documents, or have any questions concerning interpretation or clarification of Contract Documents, the Contractor shall immediately submit to the State in writing an RFI that complies with the following requirements:

- .1 All RFIs, whether by the Contractor, a Subcontractor or supplier at any tier, shall be submitted by the Contractor to the State.
- .2 RFIs shall be numbered sequentially and be presented in the format provided by the State.
- .3 The Contractor shall clearly and concisely set forth the single issue for which interpretation or clarification is sought, indicate Specification Section number, article and subarticle numbers, and Contract Drawing number, and detail, or other item involved, and state why a response is required from the State.
- .4 The Contractor shall set forth its own interpretation or understanding of the requirements, along with reasons why it has reached such an understanding in each RFI.
- .5 RFIs shall be submitted in a timely manner in order that they may be adequately researched and answered before the response affects any critical activity of the Work.
- .6 The State will review all RFIs to determine whether they are truly RFIs within the meaning of the term as defined in Paragraphs 1.1.33 and 1.6.1. RFI's which are determined to be not within the meaning of the term and/or RFIs where answers can readily be found in the Drawings and Project Manuals shall be deemed to be superfluous and the cost for reviewing these RFIs will be back-charged to the Contractor.
- .7 Responses to RFIs will be made within 14 days unless the State notifies the Contractor in writing that a response will take longer. The 14 days will begin when the RFI is received and dated by the State. Should the State respond sooner, the Contractor shall not assume that a new timeline has been established. Delays in the progress of the Work due to late submittal of RFIs by the Contractor are solely the responsibility of the Contractor.
- .8 Responses from the State will not change any requirement of the Contract unless so noted by the State in the response to the RFI.
- .9 Should the Contractor believe that a response to an RFI causes a change to the requirements of the Contract, the Contractor shall, before proceeding, give written notice to the State, indicating that the Contractor considers the State's response to the RFI to be a Change Order. An RFI will not be considered to be automatically a notice for a Change Order. The Contractor shall give separate written notice within 7 days of receipt of the State's response to the RFI. If the Contractor fails to give notice within 7 days or prior to commencement of the change, the Contractor shall forfeit the right to seek additional time or cost under Article 6.

1.6.2 Additional Detailed Instructions: The State may furnish additional detailed written and/or graphic instructions to further explain the work, and such instructions shall be a part of the Contract requirements. Should additional detailed instructions, in the opinion of the Contractor, constitute work in excess of the scope of the Work, the Contractor shall submit written notice to the State within 14 days following receipt of such instructions, and in any event prior to commencement of the work thereon. The State will then consider the notice; and, if in the State's judgment it is justified, the State's instructions will be revised or the extra work authorized in accordance with the provisions of Article 6.

ARTICLE 2 - ADMINISTRATION OF THE CONTRACT

2.1 INFORMATION AND/OR SERVICES REQUIRED OF THE STATE

2.1.1 Information and/or services under the State's control shall be furnished by the State within a mutually agreed upon response time so as to avoid delay in the orderly progress of the Work.

2.1.2 The Contractor will be furnished Drawings and Project Manuals as specified in the Contract Documents.

2.2 ADMINISTRATION OF THE CONTRACT

2.2.1 The State will provide administration of the Contract as described in the Contract Documents during construction, until final payment is due and during the correction period described in Paragraph 12.2 and throughout the guarantee period.

2.2.2 The State will visit the Project site appropriate to the stage of construction to become familiar with the progress and quality of the completed work and to determine if the Work is in accordance with the Contract Documents.

2.2.3 Unless so specified in the Contract Documents, the State will not have control over construction means, methods, techniques, sequences or procedures, or safety precautions and programs in connection with the Work. The State will not be responsible for the Contractor's failure to carry out the Work in accordance with the requirements of the Contract Documents. The State will not be responsible for acts, errors, or omissions of the Contractor, a Subcontractor, or anyone directly or indirectly employed by any of them, or of any other persons performing portions of the Work.

2.2.4 Communications Facilitating Contract Administration: Communications by and with the State's consultants shall be through the State. Communications by and with Subcontractors, Sub-subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the State.

2.2.5 If the State observes work that appears to not comply with the requirements of the Contract Documents, the State will have the authority to reject the Work. Whenever the State considers it necessary or advisable for implementation of the intent of the Contract Documents, the State will require additional inspection or testing of the Work, in accordance with Subparagraphs 3.13.2 and 3.13.3, whether or not such work is fabricated, installed or completed.

2.2.6 The State will review and take action upon the Contractor's submitted Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of submittals is not conducted for the purpose of determining the accuracy and completeness of other details, such as dimensions and quantities, nor for substantiating instructions for installation or performance of equipment or systems, which remain the responsibility of the Contractor.

2.2.7 Substitutions and Approved Equals: Alternative material(s), article(s), or equipment that are of equal quality and of required characteristics for the purpose intended may be proposed by the Contractor. The State will examine proposed alternatives for compliance with the Contract Documents. The proposed material(s), article(s), or equipment, will be reviewed for comparative quality, suitability, and performance against the product(s) specified in the Contract Documents. Refer to Subparagraph 3.12.10, for Substitution procedures. If Contractor's substitution is accepted, the Contractor shall be responsible for the costs of any changes resulting from the substitution, including, but not limited to redesign costs of the Project.

2.2.8 The State will conduct inspections to determine the Contractor's compliance with the Contract Documents and the date of Completion; will receive, for review and record, written warranties and related documents required by the Contract Documents and assembled by the Contractor; and will issue a final Payment Authorization upon compliance with the requirements of the Contract Documents and Acceptance of the Work.

2.3 BREACHES, DEFAULTS AND TERMINATION FOR CAUSE

2.3.1 If the Director deems that the Contractor has failed to supply an adequate working force, or material of proper quality, or has failed to comply with Public Contract Code Section 10262, or has failed in any other respect to prosecute the Work with the diligence and force specified by the Contract, the Director may:

- .1 after written notice of at least 5 days to the Contractor, specifying the defaults to be remedied, provide any such labor or materials and deduct the cost from any money due or to become due to the Contractor under the Contract; or
- .2 if the Director considers that the failure is sufficient ground for such action, the Director may give written notice of at least 5 days to the Contractor and the Contractor's sureties, that if the defaults are not remedied, the Contractor's control over the Work will be terminated.

2.3.2 Should the State exercise its rights to terminate as noted in Subparagraph 2.3.1, the State may, without prejudice to any other rights or remedies of the State and subject to any prior rights of the Surety:

- .1 terminate employment of the Contractor;
- .2 take possession of the Project site, materials, equipment, tools, appliances, and construction equipment and machinery owned by the Contractor;
- .3 accept assignment of Subcontractor Agreements pursuant to Paragraph 4.4; and/or
- .4 finish the Work by whatever method(s) the State may deem expeditious and appropriate.

2.3.3 When the State terminates the Contract for reasons provided in Subparagraph 2.3.1, the Contractor shall not be entitled to receive any further payment until Completion of the Work. If the costs incurred by the State because of termination under Subparagraph 2.3.1 exceed the unpaid balance, the Contractor shall pay the difference to the State.

2.4 TERMINATION FOR THE STATE'S CONVENIENCE

2.4.1 The State reserves the right to terminate this Contract or any part thereof, due to an Act of God or for its sole convenience. In the event of such termination, the Contractor shall immediately stop hereunder and shall immediately cause its Subcontractors, Sub-subcontractors and material suppliers at any tier, to immediately stop work, leaving the site in a safe and secured condition. The Contractor shall not be paid for any work performed or costs incurred after the termination date that could have been avoided.

2.4.2 The Contractor shall be paid in accordance with the provisions of Article 8; except that the amount due the Contractor shall be based upon the State's final estimate of the Work completed, or acceptable materials furnished but not used, to the date of suspension of the Work, less any amounts required to be withheld pursuant to Article 8, and less any prior payment(s) made to, or on the account of the Contractor.

2.5 SUSPENSION BY THE STATE FOR CONVENIENCE

2.5.1 The State may, by written notice, order the Contractor to suspend, delay or interrupt the Work, in whole or in part, for such period of time as the State may determine.

2.5.2 An adjustment may be claimed by the Contractor in accordance with Article 6 and Article 7 for changes in the Work, caused by a suspension, delay or interruption. No adjustment will be made to the extent:

- .1 that Contractor's performance of the Work, is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

ARTICLE 3 - CONTRACTOR

3.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY THE CONTRACTOR

3.1.1 The Contractor shall carefully study and compare the Contract Documents with each other and shall report to the State, in writing, any errors, inconsistencies or omissions discovered. If the Contractor performs any work knowing it involves a recognized error, inconsistency or omission in the Contract Documents, without such notice to the State the Contractor shall assume responsibility for such performance and shall bear the cost for correction.

3.1.2 The Contractor shall take field measurements and verify field conditions and shall compare such field measurements, conditions and other related information known to the Contractor with the Contract Documents before proceeding.

3.1.3 The Contractor shall promptly, and before such conditions are disturbed, notify the State in writing of:

- .1 subsurface or latent physical conditions at the site differing materially from those indicated, or
- .2 unknown physical conditions at the site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract.
- .3 Hazardous materials.

3.1.4 The State will promptly investigate the conditions, and if the State finds that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work, whether or not changed as a result of such conditions, a Change Order will be issued in accordance with Article 6.

3.2 SUPERVISION AND CONSTRUCTION PROCEDURES

3.2.1 The Contractor shall supervise and direct the Work. The Contractor shall be responsible for, and have control over, construction means, methods, techniques, sequences, procedures, safety precautions and programs in connection with the Work, and for coordinating the Work under the Contract; unless otherwise noted or specified in the Contract Documents.

3.2.2 The Contractor shall be responsible to the State for acts and omissions of the Contractor's employees, Subcontractors, Sub-subcontractors or material suppliers and their agents and employees, and other persons performing portions of the Work under a contract with the Contractor.

- .1 Subcontractor Responsibility: The Contractor shall be responsible for the actions or inaction of Subcontractors, Sub-subcontractors or material suppliers, at all tiers, regardless of whether they are a Disabled Veterans Business Enterprise (DVBE) firm or are stipulated suppliers or sole sourced. No claim, request for equitable adjustment or Change Order request shall be submitted to the State for any action of any Subcontractor, Sub-subcontractor or material supplier, at any tier, unless the Contractor can demonstrate that the State is the proximate cause of the change or delay alleged in such request. The State will not accept any responsibility or liability for any action or inaction of any Subcontractor, Sub-subcontractor or material supplier, at any tier, except to the extent that the State is the proximate cause of the change or delay.

3.2.3 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents, either by activities or duties of the State, the State's administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.

3.2.4 The Contractor shall be responsible for inspections of portions of the Work already completed under the Contract to determine that such portions are in proper condition to receive subsequent work. If the Contractor determines that some work performed on the Project does not comply with the requirements of the Contract Documents, the Contractor shall repair or replace such defective work at the Contractor's sole expense.

3.2.5 Until Acceptance of the Work, the Contractor shall have the charge and care thereof, and shall bear risk of injury or damage to any part of the Work by action of the elements (except for an Act of God, or natural disaster as proclaimed by the State or Federal Government), or from any other reason except for such damages as are directly caused by acts of the Federal or State Government and the public enemy, except as provided in Paragraph 8.5.

3.3 LABOR AND MATERIALS

3.3.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Materials, articles and equipment furnished by the Contractor for incorporation into the Work shall be new unless otherwise specified in the Contract Documents.

3.3.2 Hours of Labor: Workers are limited and restricted to 8 hours during any one calendar day, and 40 hours during any one calendar week except that pursuant to Labor Code Section 1815, any work performed in excess of 8 hours per day and 40 hours during any one week, shall be permitted upon compensation for hours worked in excess of 8 hours per day at not less than 1-1/2 times the basic rate of pay. The Contractor shall pay the State \$25 as a penalty for each worker for each calendar day worked in violation of the above limitations and restrictions.

3.3.3 Prevailing Wage: The Contractor shall comply with Labor Code, Section 1774 and 1775. Pursuant to Section 1774, the Contractor and any subcontractors, regardless of tier, shall pay not less than the specified prevailing wage rates to all workers employed in the execution of the Contract. In accordance with Section 1775, the Contractor and any subcontractor under the Contractor shall forfeit to the State not more than \$50 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates for the work or craft, in which the worker is employed for any work executed under the Contract by the Contractor or by any subcontractor in violation of the provisions of the Labor Code; and, in particular, Labor Code, Sections 1770 to 1780, inclusive. In addition to such forfeiture, the difference between such stipulated prevailing wage rates and the amount paid to each worker for each day, or portion thereof, shall be paid to each underpaid worker by the Contractor or subcontractor. This provision shall not apply to properly registered apprentices.

- .1 Pursuant to Labor Code, Section 1770, the Director of the Department of Industrial Relations has ascertained the general prevailing rate of per diem wages and a general prevailing rate for legal holiday and overtime work for each craft required for execution of the Contract. The Contractor shall obtain copies of the prevailing rate of per diem wages from the Department of Industrial Relations, Division of Labor Statistics & Research, PO Box 420603, San Francisco, CA 94142-0603, (415) 703-4780; or wage rates may be accessed on the internet at http://www.dir.ca.gov/DLSR/statistics_research.html. The Contractor is responsible to read, understand and comply with all the guidelines, including the fine print in the prevailing wage determinations; and shall post a copy of the prevailing wage rates, specific to the Project, at the Project site.

- .2 Wage rates set forth are the minimum that may be paid by the Contractor. Nothing herein shall be construed as preventing the Contractor from paying more than the minimum rates set. No extra compensation will be allowed by the State due to the inability of the Contractor to hire labor at minimum rates, nor for necessity for payment by the Contractor of subsistence, travel time, overtime, or other added compensations, all of which possibilities are elements to be considered and ascertained to the Contractor's own satisfaction in preparing the Bid Form.
- .3 If it becomes necessary to employ crafts other than those listed in the General Prevailing Wage Rate booklet, the Contractor shall contact the Division of Labor Statistics and Research as noted above. The rates thus determined shall be applicable as minimum for the contract and incorporated in the bid. When the wage determination shows an expiration date (noted by a double asterisk**), to expire during the term of the contract, the Contractor must call or write the DIR to obtain the new rates and incorporate them in the bid to be applicable for the term of the contract.
- .4 The Contractor and each subcontractor, regardless of tier, shall keep an accurate payroll record showing the names, addresses, social security numbers, work classifications, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or subcontractor in connection with the Work. Payroll records shall be certified and shall be on forms provided by the Division of Labor Standards Enforcement, or shall contain the same information as those forms. The Contractor's and subcontractor's certified payroll records for each employee shall be submitted with each payment request, covering the period of the payment request.

3.3.4 Travel and Subsistence Payments: The Contractor shall pay travel and subsistence payments to persons required to execute the Work as such travel and subsistence payments are defined in applicable collective bargaining agreements filed with the Department of Industrial Relations, pursuant to Labor Code, Sections 1773.1 and 1773.9.

3.3.5 Apprentices: Properly registered apprentices may be employed in the execution of the Work. Every apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which the apprentice is employed, and shall be employed only at the work of the craft or trade to which the apprentice is registered. The Contractor and each Subcontractor shall comply with the requirements of Labor Code, Section 1777.5, and any related regulations regarding the employment of registered apprentices.

3.4 NONDISCRIMINATION CLAUSE

3.4.1 Definitions: As they pertain to the Standard California Nondiscrimination Construction Contract Specifications:

- .1 Administrator: The Administrator, Office of Compliance Programs (OCP), California Department of Fair Employment and Housing (DFEH), or any person to whom the Administrator delegates authority.
- .2 Minority includes:
 - 1) Black (all persons having primary origins in any of the Black racial groups of Africa, but not of Hispanic origin); or
 - 2) Hispanic (all persons of primary culture or origin in Mexico, Puerto Rico, Cuba, Central or South America, or other Spanish derived culture or origin regardless of race); or
 - 3) Asian/Pacific Islander (all persons having primary origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent or the Pacific Islands); or
 - 4) American Indian/Alaskan Native (all persons having primary origins in any of the original peoples of North America and who maintain culture identification through tribal affiliation or community recognition).

3.4.2 Whenever the Contractor or any Subcontractor subcontracts a portion of the Work, it shall physically include in each subcontract of \$5,000 or more, the Nondiscrimination Clause in the Contract directly or through incorporation by reference. Any subcontract for work involving a construction trade shall also include the Standard California Construction Contract Specifications, either directly or through incorporation by reference.

3.4.3 The Contractor shall implement the specific nondiscrimination standards provided in Clauses 3.4.6.1 through 3.4.6.5.

3.4.4 Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities and/or women shall excuse the Contractor's obligations under these specifications, Government Code, Section 12990, or the regulations promulgated pursuant thereto.

3.4.5 In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees shall be employed by the Contractor during the training period, and the Contractor shall have made a commitment to employ the apprentices and trainees upon the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.

3.4.6 The Contractor shall take specific actions to implement the Contractor's nondiscrimination program. The evaluation of the Contractor's compliance with these specifications shall be based upon the Contractor's effort to achieve maximum results from the Contractor's actions. The Contractor shall be able to demonstrate fully the Contractor's efforts under Steps .1 through .5 below:

- .1 Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites and at all facilities at which the Contractor's employees are assigned to work. The Contractor, whenever possible, shall assign two or more women to each construction project. The Contractor shall specifically ensure that all leadpersons, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligations to maintain such a working environment, with specific attention to minority and/or female individuals working at such sites or in such facilities.
- .2 Provide written notification within 7 days to the Director of DFEH when the union(s) with which the Contractor has a collective bargaining agreement(s) has not referred to the Contractor a minority person and/or woman sent by the Contractor, or when the Contractor has other information that the union(s) referral process has impeded the Contractor's efforts to meet the Contractor's obligations.
- .3 Disseminate the Contractor's equal employment opportunity policy by providing notice of the policy to unions and training, recruitment and outreach programs and requesting their cooperation in assisting the Contractor to meet the Contractor's obligations; and by posting the company policy on bulletin boards accessible to all employees at each location where construction work is performed.
- .4 Ensure all personnel making management and employment decisions regarding hiring, assignment, layoff, termination, conditions of work, training, rates of pay or other employment decisions, including all supervisory personnel, superintendents, general leadpersons, on-site leadpersons, etc., are aware of the Contractor's equal employment opportunity policy and obligations, and discharge their responsibilities accordingly.
- .5 Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the equal employment opportunity policy and the Contractor's obligations under these specifications are being carried out.

3.4.7 Contractors are encouraged to participate in voluntary associations which assist in fulfilling their equal employment opportunity obligations. The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of the Contractor's obligations under these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work-force participation, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. It is the Contractor's obligation to comply.

3.4.8 The Contractor is required to provide equal employment opportunity for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of the Fair Employment and Housing Act (Government Code, Section 12990 et seq.) if a particular group is employed in a substantially disparate manner.

3.4.9 Establishment and implementation of a bona fide affirmative action plan pursuant to Section 8104(b) of Title 2, California Code of Regulations (CCR), shall create a rebuttable presumption that the Contractor is in compliance with the requirements of Government Code, Section 12990, and its implementing regulations.

3.4.10 The Contractor shall not use the nondiscrimination standards to discriminate, harass or allow harassment against any person because of race, color, religion, sex, national origin, ancestry, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), marital status, or age over 40, denial of family and denial of family care leave.

3.4.11 The Contractor shall not enter into any subcontract with any person or firm decertified from State contracts pursuant to Government Code, Section 12990.

3.4.12 The Contractor shall carry out such sanctions and penalties for violation of these specifications and the Nondiscrimination Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Government Code, Section 12990 and its implementing regulations by the awarding agency. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Government Code, Section 12990.

3.4.13 The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company's equal employment opportunity policy is being carried out, to submit reports relating to the provisions herein as may be required by OCP, and to keep records. Records shall at least include for each employee the name, address, telephone number, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice

trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work is performed. Records shall be maintained in any easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, the Contractor shall not be required to maintain separate records.

3.5 GUARANTEE

3.5.1 The Contractor unconditionally guarantees the Work will be completed in accordance with the requirements of the Contract Documents, and will remain free of defects in workmanship and materials for a period of 1 year from the date of Completion of the Work of the Project, unless a longer guarantee period is specifically called for in the Contract Documents. The Contractor shall repair or replace work, or adjacent work, or both, that may have been damaged or displaced, which was not in accordance with the requirements of the Contract Documents, or that may be defective in its workmanship or material within the guarantee period specified in the Contract Documents, without any expense whatsoever to the State; ordinary wear and tear and abuse excepted.

3.5.2 The Contractor further agrees, within 14 days after being notified in writing by the State, of work not in accordance with the requirements of the Contract Documents or defects in the Work, that the Contractor shall commence and execute, with due diligence, work necessary to fulfill the terms of the guarantee. If the State finds that the Contractor fails to perform the work under the guarantee, the State will proceed to have the work completed at the Contractor's expense and the Contractor will pay costs of the work upon demand. The State will be entitled to all costs, including attorney's fees necessarily incurred upon the Contractor's refusal to pay the above costs.

3.5.3 Notwithstanding the foregoing Subparagraph, in the event of an emergency constituting an immediate hazard to health or safety of State employees, property, or licensees, the State may undertake, at the Contractor's expense and without prior notice, work necessary to correct such hazardous condition(s) when it is caused by work of the Contractor not being in accordance with the requirements of the Contract Documents.

3.6 **TAXES:** The Contractor shall pay all applicable taxes for the Work, or portions thereof provided by the Contractor, which were legally enacted as of the bid date, whether or not yet effective or merely scheduled to go into effect.

3.7 PERMITS, FEES AND NOTICES

3.7.1 The Contractor shall secure and pay for required permits, governmental fees, licenses and inspections necessary to complete the Work, unless otherwise provided in the Contract Documents.

3.7.2 The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities bearing on the performance of the Work.

3.7.3 If the Contractor observes that portions of the Contract Documents are at variance with applicable laws, statutes, ordinances, building codes, and rules and regulations, the Contractor shall promptly notify the State in writing. If the Contractor performs work known to be contrary, or should have known to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without prior notice to the State, the Contractor shall assume full responsibility for the Work and shall bear the attributable costs.

3.7.4 The Contractor is not subject to municipal, county, or district laws, rules, or regulations pertaining to building permits or regulating the design or construction of buildings upon State property, except as specified in the Contract Documents.

3.7.5 The Contractor may be subject to federal, state, municipal, county, local or district laws, rules, or regulations pertaining to off-site work, such as utility connections, fire protection systems and encroachment upon federal, state, private, city or county property, including, but not limited to storm water pollution prevention plans.

3.7.6 All construction work shall comply with the California Code of Regulations, Title 24, California Building Standards Code (CBSC), and other Applicable Codes, current edition, as of the bid date or as specified in the Specifications.

3.8 **ALLOWANCES:** The Contractor shall include in the Contract Sum, Allowances in accordance with the requirements of the Specifications, Division 01.

3.9 SUPERINTENDENT

3.9.1 The Contractor shall employ a competent Superintendent and assistants who shall be in attendance at the Project site during performance of the Work. The Superintendent, or the Contractor's duly appointed representative, shall be the person in charge of

the construction of the Work and shall represent the Contractor. Communications given to the Superintendent shall be as binding as if given directly to the Contractor. All communications shall be confirmed in writing by the Contractor. Should the State deem the Superintendent to be incompetent, the State has the authority to request the Contractor to replace this person.

3.9.2 Should the Contractor decide to replace the Superintendent, the Contractor shall notify the State in writing, no fewer than 14 calendar days prior to the replacement. The Contractor shall submit the name and resume of the new Superintendent with the letter.

3.9.3 At any other time when the Superintendent is absent from the Project site because no Work is being performed, the Superintendent shall nevertheless keep the State advised of the Superintendent's whereabouts so that the Superintendent may readily be reached and available for consultation at the Project site at any time.

3.10 CONTRACTOR'S PROGRESS SCHEDULE

3.10.1 Within the time frame specified in the specifications and prior to the first payment request, the Contractor shall submit to the State a Progress Schedule, including submittal schedules, prepared in accordance with the Specifications, Division 01. The Progress Schedule shall show the order in which the Contractor proposes to execute the Work, dates on which the Contractor will start each major subdivision of the Work, and projected dates of completion of each such subdivision in accordance with the requirements of the Contract Documents. The Contractor shall submit adjusted Progress Schedules, including submittal schedules, to reflect changed conditions in accordance with the requirements of the Contract Documents with each payment request.

3.10.2 The Contractor shall, unless otherwise specified in the Contract Documents, or directed by the State in writing, show in the schedule that physical construction of the Work will start within 10 calendar days of the start date stipulated in the Notice to Proceed, and show execution to Completion, in accordance with the specified schedule, subject to adjustment in accordance with the requirements of the Contract Documents.

3.10.3 The Contractor shall provide an adequate work force, materials of proper quality, and equipment to properly execute the Work and to ensure completion of each part in accordance with the Progress Schedule and within the Contract Time specified.

3.10.4 The Contractor shall submit to the State a Schedule of Values consistent with the Progress Schedule and Article 8. The Schedule of Values will be used as a basis for payment in accordance with Article 8.

3.10.5 The State's review and acceptance of the Progress Schedule is for compliance with the requirements of the Contract Documents only. Review and acceptance by the State of the Progress Schedule does not mean approval and does not relieve the Contractor of any of the Contractor's responsibility for the accuracy or feasibility of the Progress Schedule, or of the Contractor's ability to meet the interim Project milestone dates and the date of Completion. The State's review and acceptance does not expressly or impliedly warrant, acknowledge or admit the reasonableness of the logic, durations, manpower or equipment loading of the Progress Schedule.

3.11 DOCUMENTS AND SAMPLES AT THE PROJECT SITE

3.11.1 The Contractor shall maintain at the Project site one record copy of the Drawings, Project Manual, Addenda, Change Orders and other modifications, in good order and marked currently to record changes and selections made during construction; and in addition, Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the State and shall be delivered to the State upon completion of the Work.

3.11.2 Daily Records Clause: The Contractor shall prepare and maintain daily inspection records to document the progress of the Work on a daily basis. Daily Records shall include a daily accounting of labor and equipment on the site for the Contractor and Subcontractors, at any tier. Daily Records shall make a clear distinction between work being performed under Change Order, base scope work, and/or disputed work. Daily Records shall be copied and provided to the State at the end of every week, unless otherwise agreed to in writing.

3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES (SUBMITTALS)

3.12.1 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate those portions of the work for which submittals are required and the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review by the State is subject to the limitations of Subparagraph 2.2.6.

3.12.2 The Contractor shall review, approve and submit to the State Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents within the number of days set forth in the Specifications, Division 01; except finishes which shall be submitted in a sequence so as to cause no delay in the progress of the Work or in the activities of the State or separate

contractors. Submittals that are not required by the Contract Documents may be returned to the Contractor without action.

3.12.3 The Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been reviewed by the State. Such work shall be in accordance with reviewed submittals.

3.12.4 By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and related field construction criteria, and has checked and coordinated the information contained within the submittal(s) with the requirements of the Contract Documents.

3.12.5 The Contractor shall not be relieved of the responsibility for any deviation from the requirements of the Contract Documents by the State's review of submittals unless the Contractor has specifically informed the State, in writing, or as directed by the State, of such deviation at the time of submittal, and the State has given written consent to the specific deviation. The State's review shall not relieve the Contractor of responsibility for errors or omissions in submittals. Any resulting cost increase due to such a deviation shall be the sole responsibility of the Contractor.

3.12.6 The Contractor shall respond per requirements of the Contract Documents, in writing or on resubmitted submittals, to revisions other than those requested by the State on previous submittals. After the second resubmittal of a specific item, that is still not accepted, the Contractor will be charged all costs of submittal review. The charges will be deducted from the Contract Sum.

3.12.7 Informational submittals on which the State is not expected to take action, may be identified in the Contract Documents.

3.12.8 When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the State will be entitled to rely upon the accuracy and completeness of such calculations and certifications.

3.12.9 When descriptive catalog designations, including manufacturer's name, product brand name, or model number(s) are referred to in the Contract Documents, such designations shall be considered as being those found in industry publications of current issue at date of first Invitation to Bid.

3.12.10 Substitutions and Approved Equals: Alternative material(s), article(s), or equipment that are of equal quality and of required characteristics for the purpose intended may be proposed by the Contractor for use in the Work, provided the Contractor complies with the Specifications, Division 01, and the following requirements:

- .1 The Contractor shall submit a proposal for the alternative material(s), article(s), or equipment, in writing, within 35 days after Contract start date stated in the Notice to Proceed. In exceptional cases where the best interests of the State so require, the State may give written consent to a submittal or resubmittal received after expiration of the time limit designated.
- .2 The proposal will not be considered unless the submittal is accompanied by complete information and descriptive data necessary to determine equality of offered material(s), article(s), or equipment. Samples shall be provided when requested by the State. Burden of proof as to comparative quality, suitability, and performance of offered material(s), article(s), or equipment shall be upon the Contractor. The State will be the sole judge as to such matters. In the event the State rejects the use of such alternative(s) submitted, then one of the particular products originally specified in the Contract Documents shall be furnished.
- .3 If mechanical, electrical, structural, or other changes are required for installation, fit of alternative materials, articles, or equipment, or because of deviations from Contract Drawings and Specifications, such changes shall not be made without consent of the State, and shall be made without additional cost to the State.

3.13 TESTS AND INSPECTIONS

3.13.1 The Contractor shall at all times permit the State, its agents, officers, and employees to visit the Project site and inspect the Work, including shops where work is in preparation. This obligation shall include maintaining proper facilities and safe access for such inspection. Including, but not limited to providing lifts, ladders, scaffolds, platforms and paths of travel. When the Contract Documents require a portion of the Work to be tested, such portion of work shall not be covered up until inspected and approved by the State. The Contractor shall be solely responsible for notifying the State where and when the work is ready for inspection and testing. Should any work be covered without the required testing and approval, such work shall be uncovered and recovered at the Contractor's expense. Whenever the Contractor intends to perform work on Saturday, Sunday, or a legal holiday, the Contractor shall give written notice to the State of such intention at least 48 hours prior to performing the Work, so that the State may make necessary arrangements.

3.13.2 If the State determines that portions of the Work require additional testing, inspection or approval not included in the Contract Documents, the State will instruct the Contractor, in writing, to make arrangements for additional testing, inspection or

approval by an entity acceptable to the State, and the Contractor shall give 48 hours written notice to the State of where and when tests and inspections will be conducted so that the State may observe the procedures. The State will bear the costs except as provided in Subparagraph 3.13.3.

3.13.3 If procedures for testing, inspection or approval under Subparagraphs 3.13.1 and 3.13.2 reveal failure of a portion(s) of the Work to comply with the Contract Documents, the Contractor shall bear all costs made necessary by such failure(s) including those of repeated procedures and compensation for the State's services and expenses.

3.13.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and delivered to the State within 14 days after each test.

3.14 USE OF PROJECT SITE

3.14.1 The Contractor shall confine operations at the Project site to areas permitted by law, ordinances, permits and the Contract Documents.

3.14.2 The Contractor shall perform no operations of any nature on or beyond the limits of Work or premises, except as such operations are authorized in the Contract Documents, or authorized by the State.

3.14.3 The Contractor shall ensure the limits of Work to be free of graffiti or other similar defacements during the time of the Contract; if such defacement occurs, then the Contractor shall properly remove, repair, or correct the affected area(s), or as otherwise directed by the State. The Contractor shall protect exposed surfaces within the limits of Work, with anti-graffiti coatings, and maintain such protection continuously effective during the time of the Contract.

3.14.4 Prohibitions: Pursuant to Subparagraph 3.2.2., the use of alcohol and tobacco products, and the use or possession of weapons, or illegal controlled substances by the Contractor, or others under the Contractor's control, on State property is not allowed. Residing on site in temporary facilities by the Contractor, or others under the Contractor's control, is not allowed unless otherwise specified in the Specifications, Division 01.

3.15 CUTTING AND PATCHING

3.15.1 The Contractor shall be responsible for cutting, fitting or patching as required to complete the Work.

3.15.2 The Contractor shall not damage nor endanger the Work by cutting, patching or otherwise altering the construction, and shall not cut nor otherwise alter the construction without prior written consent of the State.

3.16 CLEANING UP

3.16.1 The Contractor shall keep the Project site and surrounding areas free from waste materials and/or rubbish caused by operations under the Contract and at other times when directed by the State. At all times while finish work is being accomplished, floors shall be kept clean, free of dust, construction debris and trash. Upon completion of the Work, the Contractor shall remove from the Project site the Contractor's tools, construction equipment, machinery, and any waste materials not previously disposed of, leaving the Project site thoroughly clean, and ready for the State's final inspection.

3.16.2 If the Contractor fails to clean up as provided in the Contract Documents, the State may do so and charge the cost thereof to the Contractor.

3.17 **ACCESS TO WORK:** The Contractor shall provide the State continuous and safe access to the Work. Including, but not limited to providing lifts, ladders, scaffolds, platforms and paths of travel.

3.18 **ROYALTIES AND PATENTS:** The Contractor shall pay royalties and license fees. The Contractor shall defend suits or claims for infringement of patent rights and hold the State harmless.

3.19 INDEMNIFICATION

3.19.1 **Duty To Defend:** To the fullest extent permitted by law, the Contractor shall defend the State and any officer or employee of the State from and against suits filed against the State alleging claims, (including costs of attorneys fees) by reason of liability imposed by law and claims, including but not limited to, claims of personal injury, death, damage to property and loss of use thereof, or any claims arising out of the Contractor's performance of the Contract, or damages of other relief based on allegations of the failure of the Contractor, or the Contractor's Subcontractors to properly perform their obligations under the Contract, of the Contractor's violations of any legal duties, even if the allegations of any suit are groundless, false or fraudulent, and the Contractor

may make such investigation and settlement of any suit as the Contractor deems expedient. This duty to defend is separate and independent from the Contractor's duty to indemnify and hold harmless the State from such claims. Any failure to fulfill this obligation shall be a default of the Contractor's performance obligations under the Contract.

3.19.2 **Duty to Indemnify:** To the fullest extent permitted by the law, the Contractor shall hold harmless and indemnify the State and any officer or employee of the State from and against claims, losses and expenses (including costs of attorneys fees) by reason of liability imposed by law for claims, including but not limited to, claims of personal injury, death, damage to property and loss of use thereof, or any claims arising out of the Contractor's performance of the Contract, or damages or other relief based on allegations of the failure of the Contractor, or the Contractor's Subcontractors to properly perform their obligations under the Contract, or the Contractor's violations of any legal duties. Any failure to fulfill this obligation shall be a default of the Contractor's performance obligations under the Contract.

3.20 **AIR POLLUTION:** The Contractor and Subcontractors shall comply with State and/or local air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the Contract. If there is a conflict between the State and local air pollution control rules, regulations, ordinances and statutes, the most stringent shall govern.

3.21 **CERTIFICATION BY CONTRACTOR OF RECYCLED CONTENT:** The Contractor shall certify in writing, under penalty of perjury, to the State, the minimum, if not exact, percentage of recycled content, both postconsumer material and secondary material, as defined in Public Contract Code Sections 12153 and 12200 and 12209, in materials, goods, or supplies offered or products used in the performance of the Contract, regardless of whether the product meets the required recycled percentage as defined in Sections 12153 and 12200 and 12209. The Contractor may certify that the product contains zero recycled content.

3.22 **UNFAIR BUSINESS PRACTICES:** The Contractor agrees and will require the Subcontractors and suppliers to agree to assign to the State all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 U.S.C. Section 15), or under the Cartwright Act (commencing with Section 16700 of the Business and Professions Code), arising from the purchase of goods, services or materials, pursuant to the Contract Documents or subcontract thereunder. An assignment made by the Contractor, and additional assignments made by Subcontractors and suppliers, shall be deemed to have been made and will become effective at the time the State tenders final payment to the Contractor, without further acknowledgment of the parties.

3.23 **CHILD SUPPORT COMPLIANCE ACT:** For any contract in excess of \$100,000, the Contractor acknowledges in accordance with Public Contract Code Section 7110, that: (a) the Contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and (b) the Contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

3.24 **NOT USED**

3.25 **CONTRACTOR REQUIRED NOTIFICATION OF CHANGES:** The Contractor shall notify the State's Representative in writing of any change to Contractor's name, status, or information including but not limited to:

1. Name
 - a. An amendment is required to change the Contractor's name as listed on this Agreement. Upon receipt of Contractor's notification and legal documentation of the name change, the State will process the amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.
 - b. The State shall not be liable for penalties or interest on payments which are delayed due to Contractor's change of name and subsequent amendment processing.
2. Address/Location
3. Federal Employer Identification Number (FEIN)
4. Type of Organization or Legal Status – including:
 - a. Corporate
 - b. Partnership
 - c. Individual/Sole-Ownership
 - d. Joint Venture
 - e. Limited Liability Company
 - f. DBA
5. Ownership
6. Officers or Key Personnel
7. License
8. Other (Bankruptcy, Etc.)

Contractor shall immediately provide an updated Standard Form 204 (IRS/FTB form) to the Contracts Management & Procurement Services Section within five (5) calendar days of any such relevant change.

The State shall not be liable for penalties or interest on payments which are delayed do to Contractor's lack of proper or timely notice and documentation of a relevant change in status which impacts the State's ability to pay.

Contractor shall submit the firm's status change in writing including the Contract Number, Project Title and all necessary backup and legal documentation to support the status change to:

The State Department of General Services
Real Estate Services Division
Contracts Management & Procurement Services Section
707 Third Street, Suite 2-350
West Sacramento, CA 95605

ARTICLE 4 - SUBCONTRACTORS

4.1 SUBLETTING AND SUBCONTRACTING

4.1.1 The Contractor shall adhere to the rules governing subcontracting as set forth in the Subletting and Subcontracting Fair Practices Act, commencing with Public Contract Code, Section 4100. Subcontractor substitutions shall be in accordance with provisions of the Subletting and Subcontracting Fair Practices Act, beginning with Public Contract Code, Section 4100. Violations of this Act by the Contractor may subject the Contractor to penalties and disciplinary action as provided by the Subletting and Subcontracting Fair Practices Act.

4.1.2 The Contractor shall be responsible for the Work. Persons engaged in the Work of the Project are the responsibility and under the control of the Contractor. The Contractor shall give personal attention to fulfillment of the Contract and shall keep the Work under the Contractor's control. When any Subcontractor fails to execute a portion of the Work in a manner satisfactory to the State, the Contractor shall remove such Subcontractor immediately upon written request notice from the State, and the Subcontractor shall not again be employed on the Project. Although Specification Sections of the Contract Documents may be arranged according to various trades or general grouping of work, the Contractor is not obligated to sublet work in any manner. The State will not entertain requests to arbitrate disputes among Subcontractors or between the Contractor and Subcontractor(s) concerning responsibility for performing any part of the Work.

4.1.3 The State may not permit a contractor or subcontractor who is ineligible to bid or work on, or be awarded, a public works project pursuant to Sections 1777.1 or 1777.7 of the Labor Code to bid on, be awarded, or perform work as a subcontractor on a public works project.

- .1 Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract, and any public money that may have been paid to a debarred subcontractor by a contractor on the project shall be returned to the awarding body. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.

4.2 SUBCONTRACTUAL RELATIONS

4.2.1 The Contractor shall make available to each proposed Subcontractor, prior to the execution of a Subcontractor Agreement, copies of the Contract Documents to which the Subcontractor will be bound. Upon written request of the Subcontractor, the Contractor shall identify to the Subcontractor the terms and conditions of the proposed Subcontractor Agreement which may or may not be at variance with the Contract. Subcontractors shall similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors. The Contractor shall, by Subcontractor Agreement, require each Subcontractor, to the extent of the work to be performed by the Subcontractor:

- .1 To be bound to the Contractor by terms of the Contract.
- .2 To assume toward the Contractor the obligations and responsibilities which the Contractor, by the Contract, assumes toward the State.
- .3 To preserve and protect the rights of the State under the Contract Documents with respect to the work to be performed by the Subcontractor.
- .4 To be allowed, unless specifically provided otherwise in the Subcontractor Agreement, the benefits of rights, remedies and redress against the Contractor that the Contractor, by the Contract, has against the State.
- .5 To enter into similar agreements with Sub-subcontractors.

4.2.2 Subcontractor Payments: The Contractor shall pay the Contractor's Subcontractors for work performed no later than 10 days after receipt of each progress payment. If there is a good faith dispute over all or any portion of the amount due a Subcontractor on a progress payment, the Contractor may withhold no more than 150 percent of the disputed amount. This provision shall apply to Sub-subcontractors also. A violation of these requirements invokes the payment and penalty provisions of Public Contract Code, Section 10262 and Section 10262.5.

4.3 **DISABLED VETERAN BUSINESS ENTERPRISE PROGRAM:** Pursuant to Public Contract Code (PCC) Section 10115 et. seq., the Contractor shall use, employ and utilize Disabled Veteran Business Enterprise (DVBE) subcontractors, sub-subcontractors or material suppliers who were listed in their bid documents for DVBE Program participation, to the full extent of the amount of money and/or percentage of commitment manifested in the bid documents. If the Contractor wishes to substitute any listed DVBE subcontractors, sub-subcontractors or material suppliers for just and legal cause, the Contractor shall follow the dictates of PCC Sections 4107 and 10115.12b, as well as Military and Veterans Code (M&VC) Section 999.5(e) and California Code of Regulations, Title 2, Section 1896.64. The DVBE may only be replaced by another DVBE and shall obtain the written authorization of the State prior to any such substitutions. The Contractor shall not unilaterally substitute a listed DVBE subcontractor, sub-subcontractor or material supplier. Failure of Contractor to seek substitution and adhere to the DVBE participation requirement identified in the bid may be cause for contract termination, recovery of damages under rights and remedies due to the State, and penalties as outlined in M&VC Section 999.9; PCC Sections 4110 and PCC Section 10115.10.

4.4 **CONTRACT ASSIGNMENTS:** Performance of the Contract may not be assigned except upon written consent of the State. Consent will not be given to an assignment which would relieve the Contractor or the Contractor's Surety of their responsibilities under the Contract.

ARTICLE 5 - CONSTRUCTION BY THE STATE OR BY SEPARATE CONTRACTORS

5.1 STATE'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

5.1.1 The State reserves the right to perform work or operations related to the Project with the State's own work force, and to award separate contracts in connection with other portions of the Project, and other construction or operations on the Project site or adjacent to the Project. The Contractor shall at all times conduct the Work so as to impose no hardship on the State or others engaged in work on the Project, nor to cause any unreasonable delay or hindrance to the Project.

5.1.2 When separate contracts are awarded for different portions of the Project, "the Contractor" in the Contract Documents in each case shall mean the contractor who executes each separate contract. Each contractor is the intended third part beneficiary of other contracts for the Project.

5.1.3 The Contractor shall not cause unnecessary hindrance or delay to another contractor working on or near the Project. If the performance of any contract for the Project is likely to be interfered with by the simultaneous execution of some other separate contract or contracts, the State will decide which contractor may proceed.

5.1.4 Costs caused by defective or ill-timed work shall be borne solely by the responsible contractor.

5.2 MUTUAL RESPONSIBILITY

5.2.1 The Contractor shall cooperate fully with the State and separate contractors with regard to the execution of their work as follows:

- .1 The Contractor shall cooperate fully with the State and all separate contractors with regard to introduction and storage of their materials and equipment.
- .2 The Contractor shall coordinate with the State and separate contractors with regard to construction scheduling and sequence of operations, subject to approval of the State.
- .3 Each contractor shall monitor the schedule and progress of each other contractor whose work affects its work, and shall provide timely notice to the State of potential problems of interface so that the State can mitigate the problem.
- .4 The Contractor shall properly connect the Work to the work of the State or the separate contractors.
- .5 The Contractor shall inspect the work of the State or other contractors affecting the Work and promptly report to the State in writing irregularities or defects in the separate work, which renders it unsuitable for reception or connection of the Work.
- .6 Failure of the Contractor to inspect and report shall constitute acceptance of the other work as fit and proper to receive the Work, except as to defects which may develop in the other work after execution of the Contractor's Work.

5.2.2 Claims Between Separate Contractors:

- .1 Should the Contractor cause damage to the work or property of any separate contractor on the Project, the Contractor shall, upon due notice, settle with such other contractor by agreement, mediation or arbitration, if they will so settle.
- .2 If such separate contractor sues the State or initiates an arbitration proceeding on account of any damage alleged to have been so sustained, the State will notify the Contractor who shall defend such proceedings at the Contractor's sole expense.
- .3 The Contractor shall pay or satisfy any judgement or award against the State, arising therefrom. In addition, the Contractor shall pay the State for attorney's fees, court, arbitration or mediation costs and additional administrative, professional, consultant, inspection, testing and other service costs which the State has incurred.

5.2.3 The Contractor shall promptly remedy damage wrongfully caused by the Contractor to any completed or partially completed construction or to any property of the State or separate contractors as provided in Subparagraph 10.1.6.

5.2.4 Cutting and Patching Under Separate Contracts: The Contractor shall be responsible for any cutting, fitting and patching that may be required to complete the Work, except as otherwise specifically provided for in the Contract Documents. The Contractor shall not endanger any work of the State or of any other contractor by cutting, excavating, or otherwise altering any work, except with the written consent of the State.

5.3 **STATE'S RIGHT TO CLEAN UP:** If a dispute arises among the Contractor, separate contractors and/or the State as to the responsibility under their respective contracts for maintaining the Project site and surrounding areas free from waste materials and rubbish as described in Paragraph 3.16, the State may clean up and allocate the costs among those responsible.

ARTICLE 6 - CHANGES IN THE WORK

6.1 GENERAL

6.1.1 The State may order changes, including but not limited to, revisions to the Contract Documents, performance of extra work, and the elimination of work, without invalidating the Contract. Orders for such changes will be in writing. Changes shall not affect the obligations of the sureties on the contract bonds nor require their consent. Contract Time and Contract Sum will be adjusted, by written Change Order for changes which materially increase or decrease the time or cost or performance.

- .1 Proposed Change Order: The Contractor will be issued a written proposed Change Order by the State describing the intended changes to the Work.
- .2 Timeline: Within 14 days the Contractor shall submit to the State the Contractor's proposed cost estimate to be added or deducted from the Contract Sum due to the change, authenticated in full by completely detailed estimates and other authenticators of the cost by the Contractor, Subcontractors, Sub-subcontractors, vendors or material suppliers, and any adjustments of time of Completion of the entire Work that is directly attributable to the State's proposed Change Order.
- .3 Agreement: If an agreement is reached as to the adjustment in compensation for performance of changed Work, but an agreement is not reached as to the adjustment of Time for such Work, then the Contractor shall proceed with the Work at the agreed cost, reserving to the Contractor the right to further pursue the Contractor's claim for adjustment of time in accordance with Paragraphs 7.4 and 9.1.
- .4 Failure to Submit Cost Estimate: If the Contractor fails to submit the cost estimate within the 14 days timeline, or there is failure to agree to the Cost, then the State shall have the right to issue an order in writing to the Contractor to commence Work immediately, and the Contract Sum shall be changed in accordance with the State's estimate of cost, unless, within 14 days following completion of the added Work or with written notice to delete the Work, the Contractor submits to the State written proof that the State's estimate is in error.

6.1.2 The Contractor, when ordered by the State, shall proceed with changes before agreement is reached on adjustment, if any, in compensation or time for performance, and shall furnish to the State records as specified in Clause 6.2.1.3. If the Contractor fails to provide such records, the State's records will be used for the purpose of adjustment, if any, in Contract Time and Contract Sum.

- .1 Contractor may make payment requests for such work.

6.1.3 The Contractor will forfeit compensation for cost and /or time for proceeding with changes to the Work without written authorization from the State. The Contractor shall notify the State, in writing, and request an evaluation whenever it appears a change is necessary. This written notice shall be made within 24 hours of such discovery. If the State concurs with the Contractor's request for a change to the Work, the State will follow the procedures under Article 6. Delays as a result of these requests will be the

responsibility of the Contractor.

6.2 CHANGE ORDER

6.2.1 Methods used in determining adjustments to the Contract Sum shall be based on one of the following methods:

- .1 By mutual acceptance of a lump sum increase or decrease in costs. Upon the State's written request, the Contractor shall furnish a detailed estimate of increase or decrease in costs, together with cost breakdowns and other support data within the time specified in such request. The Contractor shall be responsible for any additional costs caused by the Contractor's failure to provide the estimate within the time specified.
- .2 By the State, on the basis of the State's estimate of increase or decrease in the costs.
- .3 By the State, whether or not negotiations are initiated as provided in Clause 6.2.1.1, by actual and necessary costs, as determined by the State, on the basis of records. Beginning with the first day and at the end of each day, the Contractor shall furnish to the State detailed hourly records for labor, construction equipment, and services; and itemized records of materials and equipment used that day in performance of the changes. Such records shall be on a form acceptable to the State. Such records shall be signed by the Contractor and, when agreed to by the State, will become the basis for compensation for the changed work. Such agreement shall not preclude subsequent adjustment based upon later audit by the State.
- .4 By unit prices stated in the Contract Documents, or subsequently agreed upon.
- .5 By a manner agreed upon by the State and the Contractor.

6.2.2 Allowable Costs: The only costs which will be allowed due to changes in the Work shall be computed in the following manner:

- .1 Labor: Compensation for labor shall include the applicable payroll cost for labor, including first level supervision providing physical construction labor directly engaged in performance of the changes. Others, who may be involved in the preparation of the change order, including, but not limited to supervisors, superintendent, engineers, or estimators, shall be considered as overhead costs under Clause 6.2.2.4. Payroll cost for labor shall be the General Prevailing Wage Rates applicable for this project and in the locality for performance of the changes. In addition to the published rates, only social security, worker compensation, state and federal taxes shall be included in the total payroll cost. Other costs shall be considered as mark-ups under Clause 6.2.2.4. Use of a classification which would increase labor costs will not be permitted.
- .2 Materials and Equipment: Compensation for materials and equipment shall include the necessary costs for materials and equipment directly required for performance of the changes. Cost of materials and equipment may include costs of transportation and delivery. If discounts by suppliers are available to the Contractor, they shall be credited to the State. If materials and equipment are obtained from a supply or source owned by, or in part, by the Contractor, payment therefore will not exceed current wholesale prices for such materials and equipment. If, in the opinion of the State, the cost of materials and equipment is excessive, or if the Contractor fails to furnish satisfactory evidence of costs from supplier, the cost of materials and equipment shall be the lowest current wholesale price at which similar materials and equipment are available in quantities required. The State reserves the right to furnish materials and equipment required for performance of the changes, and the Contractor shall have no claim for costs or mark-ups on such materials and equipment.
- .3 Construction Equipment:
 - .1 Compensation for construction equipment shall include the necessary costs for use of construction equipment directly required for performance of the changes. Any use for less than 30 minutes shall be considered one-half hour. No costs will be allowed for time while construction equipment is inoperative, idle, or on stand-by, for any reason, unless such times have been approved in advance by the State. Rental time for construction equipment moved by its own power shall include the time required to move construction equipment to the Work site from the nearest available source for rental of such equipment, and time required to return such equipment to the source. If construction equipment is not moved by its own power, loading and transportation costs will be paid in lieu of such rental time. Neither moving time nor loading and transportation costs will be allowed if the construction equipment is used for any work other than the changes. No allowance will be made for individual pieces of construction equipment and tools having a replacement value of \$500 or less. No construction equipment costs will be recognized in excess of rental rates established by distributors or equipment rental agencies in the locality for performance of the changes.
 - .2 Unless otherwise approved by the State, the allowable rate for use of construction equipment shall constitute full compensation to the Contractor for cost of fuel, power, oil, lubrication, supplies, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor except for construction equipment operators and any and all costs to the Contractor incidental to the use

of such construction equipment.

- .4 Mark-Ups for Added Work:
 - .1 General: The following allowance for mark-ups for performance of the changes shall constitute full compensation for additional field and home office overhead, profit, insurance, taxes (excluding sales taxes for materials incorporated into the project), and bonds, and other costs not covered under Clauses 6.2.2.1 through 6.2.2.3.
 - .2 Contractor: When work is added, the Contractor may claim mark-up in addition to authorized allowable costs, a reasonable sum as compensation for the items identified in 6.2.2.4.1 above, subject to proof of entitlement based on actual job costs, actual job experience, the Contractor's bidding data, and industry custom and practice. Under no circumstance can this sum exceed the following percentages:
 - .1 Contractor Labor : 21 percent, includes bond cost.
 - .2 Contractor Materials and Equipment : 16 percent, includes bond cost.
 - .3 Subcontractor Work : 6 percent of Subcontractor's costs, includes bond cost.
 - .1 Calculations of the Contractor's allowable 6 percent mark-up of the Subcontractor's Work shall not include the Subcontractor's allowable mark-up. Compounding of mark-up is not allowed.
 - .3 Subcontractors: When work is added, the Subcontractor may claim mark-up in addition to authorized allowable costs, a reasonable sum as compensation for the items identified in 6.2.2.4.1 above, subject to proof of entitlement based on actual job costs, actual job experience, the Subcontractor's bidding data, and industry custom and practice. Under no circumstance can this sum exceed the following percentages:
 - .1 Subcontractor Labor : 20 percent
 - .2 Subcontractor Materials and Equipment : 15 percent
 - .3 The aggregate mark-ups for all Subcontract tiers shall not exceed 20 percent for labor and 15 percent for materials and equipment. Compounding of mark-up is not allowed.
- .5 For Deleted Work: When the State is entitled to a credit for deleted work, the credit shall include direct labor, materials, and supervision plus overhead of the Contractor or Subcontractor, as applicable for the deleted work. Deleted overhead shall be computed as no less than 5 percent of the direct labor, materials, and supervision, and should reflect the actual savings to the Contractor resulting from the deletion based upon actual job prices for the work at issue, actual job experience, the Contractor's bidding data for the project and industry custom and practice. For example, if a \$10,000 item of work is deleted, the credit to the State would be no less than \$10,500.
- .6 For Combination of Added and Deleted Work: For Change Orders that involve both added and deleted work, the Contract Sum will be adjusted based on the following computation: Cost before mark-ups of added and deleted work shall each be separately estimated. If a difference between costs results in an increase to the Contract Sum, a mark-up for added work shall be applied to the difference. If a difference in costs results in a decrease, then the 5 percent credit to the State for deleted overhead set forth above shall be applied to the difference.
- .7 General Limitations: Costs to the Contractor for changes which exceed market values prevailing at the time of the change will not be allowed unless the Contractor establishes that all reasonable means for performance of the changes at prevailing market values have been investigated and the excess cost could not be avoided. Notwithstanding actual charges to the Contractor on work performed or furnished by others, no mark-ups will be allowed in excess of those specified in Clause 6.2.2.4 above.

6.2.3 Cost Disallowance: Costs which will not be allowed or paid in Change Orders or Claim settlements under this Contract include, but are not limited to, interest cost of any type other than those mandated by statute; Claim preparation or filing costs; legal expenses; the costs of preparing or reviewing proposed Change Orders or Change Order proposals concerning Change Orders which are not issued by the State; lost revenues; lost profits; lost income or earnings; rescheduling costs; costs of idled equipment when such equipment is not yet at the site or has not yet been employed on the Work; lost earnings or interest on unpaid retainage; claims consulting costs; the costs of corporate officers or staff visiting the site or participating in meetings with the State; any compensation due to the fluctuation of foreign currency conversions or exchange rates; or loss of other business.

6.3 **ACCEPTANCE OF CHANGE ORDERS:** The Contractor's written acceptance of a Change Order shall constitute final and binding agreement to the provisions thereof and a waiver of Claims in connection therewith, whether direct, indirect, or consequential in nature.

6.4 **EFFECT ON SURETIES:** Alterations, extensions of time, extra and additional work, and other changes authorized by the Contract Documents may be made without securing consent of Surety(s) on Contract Bonds.

ARTICLE 7 - TIME

7.1 NOTICE TO PROCEED

7.1.1 The Contractor will be notified of the Contract start date as stated in the Notice to Proceed. Notwithstanding other provisions of the Contract, the State will not be obligated to accept or to pay for work furnished by the Contractor prior to the start date stated in the Notice to Proceed whether or not the State has knowledge of the furnishing of such work. The Contractor shall not be allowed on the site of the Work until the Contractor's Contract bonds and certificates of insurance comply with requirements of the Contract.

7.1.2 Work under the Contract shall be conducted in accordance with Paragraph 3.10. The Contractor shall not begin any Work until authorized in writing by the State.

7.2 **CONTRACT TIME:** The Contract Time is the period set forth in Document 00 73 00, Supplementary Conditions. The start and completion dates will be stated in a Notice to Proceed. It is essential that the Project be completed within the time fixed for Completion in Document 00 73 00 or liquidated damages will be assessed for delay. All portions of the Work shall be completed and shall be ready for full use by the State on, or prior to, the date of Completion.

7.2.1 Time is of the essence in this Contract.

7.3 **LIQUIDATED DAMAGES:** For every day that the Work remains unfinished after the time fixed for Completion in the Contract Documents, as modified by any approved extension of time, damage will be sustained by the State. Because of the difficulty in computing actual material loss and disadvantages to the State, it is determined in advance that the Contractor will pay the State the amount of damages set forth in the Agreement, as representing a reasonable forecast of actual damages which the State will suffer by failure of Contractor to complete the Work within the time fixed for Completion in the Contract. Execution of the Agreement shall constitute acknowledgment by the Contractor that the Contractor agrees that the State will actually suffer damages in the amount fixed for every Day during which Completion of the Work is avoidably delayed beyond the time fixed for Completion in the Contract.

7.4 TIME EXTENSIONS

7.4.1 Request for Time Extension: In the event the Contractor requests an extension of Contract Time for unavoidable delay, the Contractor shall furnish such justification and supporting evidence as the State may deem necessary for the determination as to whether the Contractor is entitled to an extension of Contract Time. The Contractor shall submit justification in writing no later than 7 days after the initial occurrence of any delay. The justification shall be based on the Official Progress Schedule as updated at the time of occurrence of the delay or execution of work related to any changes to the scope of the Work. The justification shall include, but is not limited to the following information:

- .1 Duration to perform activity(ies) relating to changes in the Work and resources (manpower, equipment, material, etc.) required to perform these activities within the stated duration.
- .2 Logical ties to the Official Progress Schedule for proposed changes or delay showing activity(ies) in the schedule start or completion dates are affected by the change or delay.

7.4.2 The State, upon receipt of such justification and supporting evidence, shall make its finding of fact. The State's decision shall be final and conclusive and the State will advise the Contractor in writing of such decision. If the State finds that the Contractor is entitled to an extension of Contract Time, the State's determination as to the total number of extension days shall be based upon the latest updated version of the Official Progress Schedule. Such data will be included in the next monthly updating of the schedule.

7.4.3 Time Extensions: For delays that the State agrees are unavoidable, and are Justified in accordance with Subparagraph 7.5.2, the Contractor shall, pursuant to the Contractor's application, be allowed an extension of time beyond the Contract Time. During such extension of time, neither extra compensation for engineering and inspection nor liquidated damages will be charged to the Contractor. Time extensions shall be granted only for delays or changes that extend the Completion date, based on the latest accepted updated version of the Official Progress Schedule. Time extensions for delays and changes shall not exceed one day for each day that the Contract Completion date of the Official Progress Schedule is extended by this change or delay.

7.5 DELAYS IN COMPLETION OF THE WORK

7.5.1 Notice of Delays: Whenever the Contractor foresees delay in the continuance and Completion of the Work, or immediately upon the occurrence of any delay which the Contractor regards as unavoidable, the Contractor shall notify the State in writing, in a separate notice of the delay. The Contractor's notice shall include the probability of the occurrences of such delay and its cause in

order that the State may take immediate steps to prevent the occurrence or continuance of the delay. If the delay cannot be prevented, the State will determine whether the delay is unavoidable and to what extent continuance and Completion of the Work is anticipated to be delayed.

- .1 The Contractor shall make no claim for delay not called to the attention of the State in writing, at the time of its occurrence.
- .2 Delay in the continuance of parts of the Work that does not prevent or delay the continuance of other parts of the Work or the Completion of the whole Work within the Contract Time shall be deemed to constitute neither avoidable delays nor unavoidable delays, within the meaning of the Contract. Such delay will be considered Unjustified and no extension to the Contract Time and/or additional compensation will be granted.

7.5.2 Justified Delay: Justified Delay in the continuance or Completion of the Work shall include delays which result from causes beyond the control of the Contractor and which could not have been avoided by the exercise of due care and diligence on the part of the Contractor or the Contractor's Subcontractors. Delay in Completion of the Work due to Contract modifications ordered by the State and unforeseeable delays in continuance or completion of the work of other contractors employed by the State may be considered Justified Delays insofar as they interfere with the Contractor's Completion of the Work within the Contract Time. Delays due to normal weather conditions which prevent the Contractor from proceeding with the controlling item on the Official Progress Schedule will not be regarded as a Justified Delay.

- .1 Justified Delay will result in an extension beyond the Contract Time in accordance with Paragraph 7.4.
- .2 Justified Delay that includes Contract modifications ordered by the State may entitle the Contractor to extra compensation in accordance with the provisions of Article 6.
- .3 Delay that results from causes beyond the control of the State and is determined by the State to be the Contractor's responsibility shall be considered Unjustified and will result in no extension in the Contract Time or extra compensation. The State's decision shall be final and conclusive.
- .4 The State will determine the net difference between overlapping or concurrent Justified Delays and Unjustified Delays and whether the Contractor is entitled to any extension in the Contract Time and/or extra compensation. The State's decision shall be final and conclusive.

7.5.3 Weather Delays: If weather conditions are the basis for delays in the continuance or completion of the Work, such delay shall be documented by 5 year climatological data obtained by the Contractor, from the nearest nationally recognized reporting station to the Work site, substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that weather conditions had an adverse effect on the scheduled construction. The State will not be responsible for additional costs of the Contractor caused by weather delays, including, but not limited to, costs of extended overhead.

7.6 ACCELERATION

7.6.1 The State reserves the right to accelerate the Work of the Contract. In the event that the State directs acceleration, such directive will be only in written form. The Contractor shall keep cost and other Project records related to the acceleration directive separately from normal Project costs and records, and shall provide a written record of acceleration cost to the State on a daily basis.

7.6.2 In the event that the Contractor believes that some action or inaction on the part of the State constitutes an acceleration directive, the Contractor shall immediately notify the State in writing that the Contractor considers the actions an acceleration directive. This written notification shall detail the circumstances of the acceleration directive. The Contractor shall not accelerate work efforts until the State responds to the written notification. If acceleration is then directed or required by the State, cost records referred to above shall be maintained by the Contractor and provided to the State on a daily basis.

7.6.3 In order to recover additional costs due to acceleration, the Contractor shall document that additional expenses were incurred and paid by the Contractor. Labor costs recoverable will be only overtime or shift premium costs or the cost of additional laborers brought to the site to accomplish the accelerated work effort. Equipment costs recoverable will be only the cost of added equipment mobilized to the site to accomplish the accelerated work effort.

ARTICLE 8 - PAYMENTS AND COMPLETION

8.1 SCHEDULE OF VALUES: Before the first payment request, the Contractor shall submit to the State a Schedule of Values allocated to portions of the Work, included with the Contractor's Progress Schedule, and supported by such data to substantiate the accuracy as the State may require. This Schedule of Values, unless objected to by the State, shall be used as a basis for progress payments.

8.2 TIMELINESS OF PAYMENTS

8.2.1 Upon receipt of a payment request by the designated State's Representative with updated Progress Schedule from the Contractor, the State will review same to determine if it is a proper payment request based on the approved Schedule of Values. Any payment request determined by the State not to be suitable for payment shall be modified and processed in accordance with the State's assessment or returned to the Contractor for resubmittal. The reason(s) the payment request was deemed unsuitable shall be stated in writing.

8.2.2 Actual payment request submittal date shall be established by the State. Thereafter, the payment request submittal date will be monthly on the same date.

8.2.3 The State will make progress payments pursuant to Public Contract Code, Section 10261.5.

8.3 RETENTIONS

8.3.1 Upon submittal and receipt of a monthly payment request in accordance with Paragraph 8.2 above, the following shall apply:

- .1 The Contractor's payment request shall include the total amount of Work completed to date, including materials as verified by the State, furnished and delivered on the Project site, not used, or in a secure off-site facility, pursuant to Public Contract Code, Section 10261. All materials included in the Contractor's payment requests furnished and delivered on the Project site, not used, and /or in a secure off-site facility shall be used exclusively for the Project. It shall be the sole responsibility of the Contractor to maintain, protect and secure such materials.
- .2 The State shall retain not less than 5 percent of the estimated value of Work completed.

8.3.2 Securities in Lieu of Retention: At the request and expense of the Contractor, and in accordance with Public Contract Code, Section 10263, the Contractor may provide securities in lieu of retention.

8.4 **ASSIGNMENT OF CONTRACT FUNDS:** The Contractor may assign moneys due or to become due under the Contract, through an amendment to the Contract. Any assignment of moneys earned by the Contractor shall be subject to proper retention in favor of the State and to deductions provided for in the Contract. Moneys withheld, whether assigned or not, are subject to being used by the State to the extent permitted by law, for the Completion of the Work in the event that the Contractor is in default of the Contract.

8.5 OCCUPANCY BY THE STATE PRIOR TO COMPLETION OF THE WORK

8.5.1 The State reserves the right to occupy all or any part of the Project prior to Completion of the Work, upon written notice. Such occupancy or use is herein referred to as Beneficial Occupancy. In this event, the Contractor shall be relieved of responsibility to the State for liability arising out of such occupancy by the State. Nevertheless, the Builder's Risk Coverage must remain in effect, with either a "consent to occupy" endorsement or a waiver of occupancy endorsement, with no right of recovery against the State.

8.5.2 The State's Beneficial Occupancy does not constitute Completion of the Work or Acceptance of the Work by the State, or any portion of the Work, nor will it relieve the Contractor of responsibility for correcting defective Work or materials found at any time before Acceptance of the Work, as set forth in Article 12 or during the Guarantee period as set forth in Paragraph 3.5, or after the State's acceptance, as set forth in Subparagraph 8.6.1. However, when the Project includes separate buildings, and one or more of the buildings is entirely occupied by the State, then upon written request by the Contractor and by written consent from the State, the Guarantee period will commence to run from the date of the State's occupancy of such building or buildings.

8.6 ACCEPTANCE OF THE WORK AND FINAL PAYMENT

8.6.1 When the Contractor considers the Work complete, the Contractor shall request a final inspection in writing to be conducted by the State.

- .1 The Contractor shall request this final inspection only when all Work, including deficient items identified on previous inspections, have been completed and deliverables delivered as noted in the Project Manual, Section 01 77 00.
- .2 The State Representative shall conduct a final inspection within 14 days of receipt of a written request from the Contractor for final inspection.
- .3 If, after the inspection, the State Representative determines that the Work is complete, the State Representative will establish a date for Completion of the Work. The State Representative will then recommend to the Director of the Department of General Services, or the Director's designee, to accept the Work within 60 days from the

date of Completion of the Work.

- .4 Upon Acceptance of the Work by the Director:
 - a) The Retention held by the State will be released, and
 - b) The Contractor will be relieved of the duty of maintaining and protecting the Work.
- .5 If the State determines that the Work is not complete, the Contractor will be notified in writing of deficiencies. After correcting all deficiencies the Contractor shall again initiate the procedures for final inspection as set forth above. If the process of re-inspection and correction of deficiencies goes beyond the Contract Time, the Contractor shall be assessed liquidated damages.
- .6 Determination by the State that the Work is complete or Acceptance of the Work will not bar any Claim against the Contractor pursuant to Paragraph 3.5.

8.6.2 Upon Acceptance of the Work, the State will submit a final statement to the Contractor:

- .1 The final statement shall take into account the Contract Sum as adjusted by any Change Orders, amounts already paid to the Contractor, sums to be withheld for incomplete Work, liquidated damages, stop notices, and for any other cause under the Contract.
- .2 A warrant in the amount of the sum due the Contractor, if any, will be issued.
- .3 If the Contractor owes any amount to the State, the final statement shall serve as an invoice to the Contractor.

8.6.3 The Contractor is required to pay Subcontractors from which a Retention has been withheld within 7 days of receipt from the State of Retention proceeds.

8.6.4 The Contractor has 30 days after receipt of the final statement to file a Claim with the State.

- .1 All Claims shall comply with the requirements of Subparagraph 9.1.2.
- .2 Failure to file a Claim within the 30 day period constitutes a failure to diligently pursue and exhaust the required administrative procedures set forth in the Contract. Such failure shall constitute waiver of additional rights to compensation under the Contract or the right to request Equitable Adjustment.
- .3 If the Contractor does not file a Claim within the 30 day period, the final warrant made by the State will become a complete and final settlement between the State and the Contractor.

8.7 **INTEREST:** Payments due and unpaid under the Contract shall earn interest pursuant to Public Contract Code, Sections 7107 and 10261.5.

ARTICLE 9 - DISPUTES AND CLAIMS

9.1 DISPUTE AND CLAIM PROCEDURES

9.1.1 Dispute as to Contract Requirements: When the Contractor and the State fail to agree whether or not any work is within the scope of Contract requirements, the Contractor shall immediately perform such work upon receipt of a written notice to do so by the State. Within 14 days after receipt of such notice to perform disputed work, the Contractor may submit a written protest to the State, specifying in detail the Contract requirements that were exceeded, and approximate change in cost resulting so that the State will have notice of a potential Claim. Failure to submit a protest within the specified period shall constitute a waiver of any and all rights to an adjustment in Contract Sum and Contract Time due to such work, and the Contractor thereafter shall not be entitled to adjustment of Contract Sum or Contract Time. For any such work that is found to exceed Contract requirements, there shall be an adjustment in Contract Sum and Contract Time on same basis as any other change in the Work.

- .1 The Contractor shall provide supporting data and shall provide and maintain records of costs attributable to Disputes in similar manner as for Change Orders in Article 6.
- .2 The State's Representative and the Contractor's Superintendent will make every reasonable effort to resolve the Dispute prior to proceeding to the next step.
- .3 Either the State or the Contractor may call a special meeting for the purpose of resolving the Dispute. Such a meeting will be held within 7 days of written request thereof.
- .4 If the Dispute as to the Contract Documents has not been resolved, the Contractor shall, within 14 days after the special meeting, take one or more of the following actions:
 - .1 submit additional supporting data requested by the State;
 - .2 modify the initial Dispute; or
 - .3 notify the State that the initial Dispute stands as is.
- .5 If the Dispute has not been resolved within 7 days after the Contractor's action in response to Clause 9.1.1.4, another meeting may be scheduled, at the State's option, with senior management personnel of the State and the Contractor. The purpose of this meeting is to resolve the Dispute prior to proceeding to the action under

Subparagraph 9.1.2.

9.1.2 Claim Submission and Documentation: If a Dispute has not been resolved at the time of the State's final statement, the Contractor shall submit within 30 days a Claim along with detailed documentation required by Subparagraph 9.1.1 for the State's consideration.

- .1 The Contractor shall furnish 3 certified copies of the required Claim documentation. The Claim documentation shall be complete when furnished. The evaluation of the Contractor's Claim will be based upon State records and the Claim documents furnished by the Contractor.
- .2 Claim documentation shall conform to generally accepted accounting principles and shall be in the following format:
 - .1 General Introduction
 - .2 General Background Discussion
 - .3 Issues
 - .1 Index of Issues (listed numerically)
 - .2 For each issue
 - .1 Background
 - .2 Chronology
 - .3 Contractor's position (reason for State's potential liability)
 - .4 Supporting documentation of merit or entitlement
 - .5 Supporting documentation of damages
 - .6 Begin each issue on a new page
 - .4 All critical path method (CPM) schedules, both as-planned, monthly updates, schedule revisions, and as-built along with the computer disks of all schedules related to the Claim.
 - .5 Productivity exhibits (if appropriate)
 - .6 Summary of Issues and Damages
- .3 Supporting documentation of merit for each issue shall be cited by reference, photocopies, or explanation. Supporting documentation may include, but shall not be limited to, General Conditions; General Requirements; technical Specifications; Drawings; correspondence; conference notes; Shop Drawings and submittals; Shop Drawing logs; survey books; inspection reports; delivery schedules; test reports; daily reports; subcontracts; fragmentary critical path method (CPM) schedules or time impact analyses; photographs; technical reports; requests for information; field instructions; and all other related records necessary to support the Contractor's Claim.
- .4 Supporting documentation of damages for each issue shall be cited, photocopied, or explained. Supporting documentation may include, but shall not be limited to, documents related to the preparation and submission of the bid; certified, detailed labor records, including labor distribution reports; material and equipment procurement records; construction equipment ownership costs records or rental records; Subcontractor or vendor files and cost records; service cost records; purchase orders; invoices; Project as-planned and as-built cost records; general ledger records; variance reports; accounting adjustment records; and any other accounting materials necessary to support the Contractor's Claim.
- .5 Each copy of the Claim documentation shall be certified by a responsible officer of the Contractor in accordance with the requirements of the Contract Documents.
- .6 Should the Contractor be unable to support any part of the Claim, and it is determined that such inability is attributable to falsity of such certification or misrepresentation of fact or fraud on the part of the Contractor, the Contractor shall be liable to the State as provided for under California Government Code, Section 12650 et seq., known as the False Claims Act.
- .7 The State will render a written decision to the Contractor relative to the Claim. The State's written decision shall be final and binding on the party(ies) but subject to arbitration. The State may withhold from the final payment an amount not to exceed 150 percent of the disputed amount. If there is a Surety and there appears to be a possibility of a Contractor's default, the State may, but is not obligated to, notify the Surety and request the Surety's assistance in resolving the controversy.
- .8 All issue items to be included in the Complaint in Arbitration shall be a part of the Claim submitted with the required documentation under this Subparagraph 9.1.2. Issues not included in the Claim under Subparagraph 9.1.2 shall not be considered.

9.1.3 Arbitration: Any Claim filed in compliance with Subparagraph 9.1.2 not resolved by the above procedures shall be resolved by arbitration in accordance with the provisions of Public Contract Code Section 10240 et seq., and Title 1, California Code of Regulations, Section 1300 et seq., unless the State and the Contractor agree in writing to waive arbitration and proceed to litigation. Either party may initiate arbitration by filing a Complaint in Arbitration with the Office of Administrative Hearings in

Sacramento, California, in compliance with the requirements of Public Contract Code Section 10240, et seq., and Title 1, California Code of Regulations, Section 1300 et seq. Arbitration shall be conducted in Sacramento, California.

9.2 AUDIT AND ACCESS TO RECORDS

9.2.1 The Contractor shall maintain books, records, documents, and other evidence directly pertinent to the performance of the Work under this Contract, in accordance with generally accepted accounting principles and practices consistently applied. The Contractor shall also maintain all financial information and data used by the Contractor in the preparation or support of any cost submission, including the Contractor's original bid required for this Contract, or any Change Order, Claim, or other request for equitable adjustment, and a copy of the cost summary or information submitted to the State. The State's Representative shall have access upon 24 hours advance written notice, at all times during normal business hours, to such books, records, documents, financial information, and all other evidence for the purpose of inspection, audit, and copying. The Contractor shall, at no cost to the State, provide proper facilities for such access, inspection and copying purposes.

9.2.2 The Contractor agrees to make the provisions of Paragraph 9.2 applicable to this Contract, and Change Orders, Claims, or other requests for Equitable Adjustment affecting the Contract Time or Contract Sum. The Contractor agrees to include the provisions of Paragraph 9.2 in subcontracts and sub-subcontracts or purchase orders, at any tier, and make Paragraph 9.2 applicable to subcontracts, at any tier, in excess of \$10,000, and to make the provisions of Paragraph 9.2 applicable to Change Orders, Claims, and other requests for Equitable Adjustment related to Project performance.

9.2.3 Audits conducted under Paragraph 9.2 shall be in accordance with general accepted auditing standards and established procedures and guidelines of the reviewing or audit agency.

9.2.4 The Contractor agrees to the disclosure of all information and reports resulting from access to records under the provisions of Paragraph 9.2, to the State, and other affected agencies.

9.2.5 Records under the provisions of Paragraph 9.2 shall be maintained and made available during the performance of the Work under this Contract until 3 years past final payment, and until final settlement of all Disputes, Claims, or litigation, whichever occurs later. In addition, those records which relate to any portion of this Contract, to any Change Order, to any Dispute, to any litigation, to the settlement of any Claim arising out of such performance, or to the cost or items to which an audit exception has been taken, shall be maintained and made available until final payment or final resolution of such Dispute, litigation, Claim, or exception, whichever occurs later.

9.2.6 The right of access provisions of Paragraph 9.2 applies to financial records pertaining to this Contract and Change Orders and Claims. In addition, this right of access applies to records pertaining to all contracts, Change Orders, and Contract Amendments:

- .1 To the extent the records pertain directly to Contract performance;
- .2 If there is any indication that fraud, gross abuse, or corrupt practices may be involved;
- .3 If the Contract is terminated for default or convenience.

9.2.7 Access to records is not limited to the required retention periods. The authorized State Representatives shall have access to records at any reasonable time for as long as the records are maintained.

9.2.8 Further, the Contractor agrees to include a similar right of the State to audit records and interview staff in any subcontract related to performance of this Agreement, in regards to the Disabled Veterans Business Enterprise (DVBE) Program.

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY OF PERSONS AND PROPERTY

10.1.1 The Contractor shall initiate, maintain and supervise -safety precautions and programs in connection with the performance of the Work.

10.1.2 The Contractor shall take precautions for safety and provide protection to prevent damage, injury or loss to:

- .1 Employees working under the Contract and other persons who may be affected thereby;
- .2 The Work and materials and equipment to be incorporated therein, whether in storage on or off the Project site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 Other property at the Project site, or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities, except as otherwise noted or specified.

10.1.3 The Contractor shall comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on the safety of persons or property, or their protection from damage, injury or loss.

10.1.4 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying the State, other Owners (other than the State) and users of adjacent sites and utilities.

10.1.5 The Contractor shall comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities regarding the storage and/or use of explosives or other hazardous materials or equipment necessary for execution of Work. The Contractor shall employ properly qualified personnel for supervision of same.

10.1.6 The Contractor shall remedy damage and loss to property referred to in Clauses 10.1.2.2 and 10.1.2.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Clauses 10.1.2.2 and 10.1.2.3. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Paragraph 3.19.

10.1.7 The Contractor shall not permit any part of the Work or Project site to be loaded so as to endanger its safety.

10.1.8 When conditions of the Work, in the judgment of the State, present risk of injury or death to persons or property damage, the State, may direct the Contractor, at the Contractor's sole expense, to close down the Work and not commence work again until dangerous conditions are eliminated.

10.1.9 The Contractor, at the Contractor's own cost, shall rebuild, repair, restore and make good damages to any portion of the Work affected by such causes before Acceptance of the Work.

10.2 **EMERGENCIES:** In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's sole discretion, to prevent any threatened damage, injury or loss. Additional compensation or extension of Contract Time claimed by the Contractor because of an emergency will be reviewed as provided in Article 6.

10.3 **DRUG-FREE WORKPLACE**

10.3.1 By signing the Agreement, the Contractor certifies, under penalty of perjury under the laws of the State of California, that the Contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code, Section 8350 et seq.), and will provide a drug-free workplace by taking the following actions:

- .1 Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
- .2 Establish a Drug-Free Awareness Program to inform employees about:
 - .1 The dangers of drug abuse in the workplace;
 - .2 The person's or company's policy of maintaining a drug-free workplace;
 - .3 Any available counseling, rehabilitation, and employee assistance programs; and,
 - .4 penalties that may be imposed upon employees for drug abuse violations.
- .3 Provide, as required by Government Code, Section 8355(c), that every employee who works under the Contract will:
 - .1 receive a copy of the company's drug-free workplace policy statement; and
 - .2 agree to abide by the terms of the company's statement as a condition of employment.

ARTICLE 11 - INSURANCE AND BONDS

11.1 CONTRACTOR'S INSURANCE

11.1.1 General Insurance Requirements:

- .1 Contractor shall procure and maintain insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Contractor, its agents, representatives, employees or subcontractors.
 - .1 Contractor shall furnish the State with original certificates and endorsements effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the State before work commences.
 - .2 The State reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.
- .2 Insurance Companies shall be acceptable to Department of General Services (DGS) and Office of Risk and Insurance Management (ORIM). Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-VI. Exception may be made for the State Compensation Insurance Fund. If self-insured, review of financial information may be required.
- .3 Except as otherwise provided for Builders Risk/Installation Floater under Clause 11.1.2.4, all coverage shall be in force until the Acceptance of the Work by the Director of DGS. If the insurance expires, the Contractor shall immediately provide a new current certificate or be declared in breach of Contract. The State reserves the right to withhold all progress and retention payments until the breach is cured to the satisfaction of the State. Renewal insurance certificates must be tendered to the State prior to or exactly at the expiration of the previous insurance certificate. There shall be no gap in insurance coverage. This renewed insurance shall be in accordance with the terms of the Contract.
- .4 Insurance policies shall contain a provision that coverage will not be cancelled without 30 days prior written notice to the State.
- .5 The Contractor shall be responsible for any deductible or self-insured retention contained within the insurance.
- .6 In the event the Contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to the remedies noted in Article 11.1.1.3 above and any other remedies it may have, remove the Contractor from the work site and/or may terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract. In the event, the State elects to remove the Contractor from the work site, the Contractor will not be entitled to additional days or compensation.
- .7 Any insurance required to be carried shall be primary.
- .8 Minimum Scope of Insurance - Coverage shall be at least as broad as:
 - .1 Insurance Services Office Commercial General Liability coverage (occurrence Form CG 0001). The insurance Certificate shall show the GL form number.
 - .2 Insurance Services Office Form Number CA 0001 covering Automobile Liability, "any auto", or "scheduled, hired and nonowned".
- .9 The State reserves the right to require the Contractor to provide the subcontractors' insurance certificates and policies, when so directed by the State.

11.1.2 Insurance Requirements: The Contractor shall furnish to the State evidence of the required insurance as follows:

- .1 Commercial General Liability: The Contractor shall maintain commercial general liability with limits of not less than \$5,000,000 per occurrence for bodily injury and property damage liability combined. 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. If the aggregate applies "per project or location", it shall so state on the certificate. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal and advertising injury, and liability assumed under an insured contract. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy shall include the Department of General Services and the State of California, its officers, agents, and employees, as additional insureds, but only insofar as the operations under the Contract are concerned.
 - .1 Additional Insured coverage shall be provided in the form of an insured endorsement (CG 20 10 11 85 r equivalent) to the contractor's insurance policy. The endorsement must be attached to the certificate.

- .2 Deductibles and Self-Insured Retentions (for Commercial General Liability): Any deductibles or self-insured retentions must be declared to and approved by the State. At the option of the State, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the State of California and the Department of General Services, its officers, agents, employees and servants or the Contractor shall provide a financial guarantee satisfactory to the State guaranteeing payment of losses and related investigations, claim administration, and defense expenses.
- .2 Automobile Liability: The Contractor shall maintain motor vehicle liability with limits of not less than \$1,000,000 per accident for bodily injury and property damage. The State is to be covered as additional insured with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the contractor.
- .3 Workers' Compensation: The Contractor shall maintain statutory workers' compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Contract, including special coverage extensions where applicable as required by the State of California. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the State for all work performed by the contractor, its employees, agents and subcontractors. Except for State Fund, all subrogation waiver endorsements shall be on a separate form attached to the certificate. The Contractor shall maintain Employer's Liability coverage of \$1,000,000 per accident for bodily injury or disease.
- .4 Builders Risk/Installation Floater: The Contractor shall maintain in force, at its own expense, Builders Risk/Installation Floater covering the Contractor's labor, materials, and equipment to be used for completion of the Work performed under this Contract against all risks of direct physical loss, excluding earthquake and flood, for an amount equal to the full amount of the Contract Sum.
 - .1 The Contractor agrees as a provision of the contract to waive all rights of recovery against the State.
 - .2 The State of California, Department of General Services shall be a named insured or additional insured under the policy.
 - .3 The policy shall have a loss payable clause in favor of the State of California, Department of General Services.
 - .4 The requirement for maintaining the Builders Risk/Installation Floater shall be in full force at all times during the entire duration of the Contract Time without any gaps, delays or breaks in coverage. This includes Beneficial Occupancy and authorized adjustment for time extensions. Coverage shall be maintained until Completion of the Work, except for delivery of as-built drawings, operation and maintenance manuals, guarantees, warranties, spare parts, reports and certifications as noted in the Closeout Procedures section of the Project Manual and as determined by the State's Representative in writing.

11.1.3 Neither the State, nor any officer or employee of the State, shall be liable for any loss or damage that may happen to the Work, or any part thereof; nor to any of the materials or other items used or employed in performing the Work; nor for injury to any person or persons, either workers or the public, for damage to property from any cause which might have been prevented by the Contractor, or the Contractor's employees or agents, against all of which injuries or damages the Contractor shall properly guard. The Contractor shall indemnify and hold harmless the State, and all officers and employees of the State, from all suits, actions or claims brought for, or on account of injuries or damages received or sustained by any person or persons, by or from the Contractor, the Contractor's employees or agents, in construction of the Work, or by or in consequence of the Contractor's failure to properly guard the same, or by or as a result of any act or omission of the Contractor, the Contractor's employees or agents. In addition to any remedy authorized by law, moneys due the Contractor under the Contract, as considered necessary by the State, may be retained until disposition has been made of such suits, actions, or claims for damages; however, this provision shall not be construed as precluding the State from enforcing any right of offset the State may have to any such moneys.

11.2 **NO PERSONAL LIABILITY:** Neither the State, nor any other officer or employee of the State will be personally responsible for liabilities arising under the Contract.

11.3 **PERFORMANCE BOND AND PAYMENT BOND**

11.3.1 The Contractor shall furnish bonds, each in the amount of 100 percent of the Contract Sum, covering faithful performance of the Contract and payment of obligations arising thereunder, as stipulated in the bidding requirements or as specifically required in the Contract Documents.

11.3.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bond(s) or permit a copy to be made.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING AND CORRECTION OF WORK

12.1.1 If a portion of the Work is covered prior to the State's review, it shall, if requested in writing by the State, be uncovered for the State's observation and replaced at the Contractor's expense without change in the Contract Time.

12.1.2 The Contractor shall notify the State 2 working days prior to covering any work.

12.2 CORRECTION OF WORK

12.2.1 The Contractor shall promptly correct work rejected by the State or Work failing to conform to the requirements of the Contract Documents, whether or not fabricated, installed or completed. The Contractor shall bear the costs of correcting such rejected work, including additional testing and inspections required and compensation for the State's services and expenses made necessary thereby.

12.2.2 Notwithstanding Paragraph 3.5, in the event of an emergency constituting an immediate hazard to the health or safety of any persons or property, the State may undertake, at the Contractor's expense and without prior notice, work necessary to correct such hazardous condition(s) arising from work performed by the Contractor that is not in conformance with the requirements of the Contract Documents.

12.2.3 The Contractor shall remove from the Project site portions of the Work that are not in accordance with the requirements of the Contract Documents, and are neither corrected by the Contractor nor accepted by the State.

12.2.4 If the Contractor fails to correct nonconforming work, as per Paragraph 3.5, the State may correct the nonconforming work in accordance with Paragraph 2.3. If the Contractor does not proceed with correction of such nonconforming work, within such time fixed by written notice from the State, the State may remove and store the salvable materials articles and/or equipment at the Contractor's expense. If the Contractor does not pay all costs of such removal and storage within 14 days after written notice, the State may, upon 14 additional calendar days written notice, sell such materials articles and/or equipment at an auction or private sale, and shall account for the proceeds thereof, after deducting costs and damages that would have been borne by the Contractor, including compensation for the State's services and expenses made necessary thereby. If the proceeds of a sale do not cover all costs that the Contractor would have borne, the Contract Sum shall be reduced by the deficiency. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the State.

12.2.5 The Contractor shall bear the cost of correcting destroyed or damaged Work executed by the State or separate contractors, whether fully completed or partially completed, which is caused by the Contractor's correction or removal of Work that is not in accordance with requirements of the Contract Documents.

12.2.6 Nothing contained in this Paragraph 12.2 shall be construed to establish a period of limitation with respect to other obligations that the Contractor might have in the Contract Documents. Establishment of the time period of 1 year, as described in Subparagraph 3.5.1, relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with requirements of the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

12.3 **ACCEPTANCE OF NONCONFORMING WORK:** If the State prefers to accept any or all of the Work that is not in accordance with requirements of the Contract Documents, the State may do so instead of requiring its correction and/or removal, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment to the Contractor has been made.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

13.1 **GOVERNING LAW:** The Contract shall be governed by the law of the State of California.

13.2 **SUCCESSORS AND ASSIGNS:** The Contract binds the Contractor, the Contractor's partners, successors, assigns and legal representatives to the State in respect to covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations in the Contract Documents.

13.3 **WRITTEN NOTICE:** Written notice shall be deemed to have been duly served if delivered in person to the individual; or a member of the firm or entity; or to an officer of the corporation for which it was intended; or if delivered to or sent by US mail to the last business address known to the party giving notice.

13.4 **CONTRACTOR'S USE OF COMPUTER SOFTWARE:** The Contractor, by signing the Agreement, certifies that it has appropriate systems and controls in place to ensure that State funds will not be used in the performance of the Contract for the acquisition, operation or maintenance of computer software in violation of copyright laws.

13.5 **INDEPENDENT CONTRACTOR:** Contractor, and the agents, subcontractors, and employees of the Contractor, in the performance of this Contract, shall act in an independent capacity and not as officers or employees or agents of the State.

13.6 **UNENFORCEABLE PROVISIONS:** In the event that any provision of this Contract is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Contract have force and effect and shall not be affected thereby.

13.7 **EXPATRIATE CORPORATIONS:** Contractor hereby declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of Public Contract Code Section 10286 and 10286.1, and is eligible to contract with the State.

13.8 **DOMESTIC PARTNERS:** For Contracts executed or amended after July 1, 2004, the Contractor may elect to offer domestic partner benefits to the Contractor's employees in accordance with Public Contract Code Section 10295.3. However, the Contractor cannot require an employee to cover the costs of providing any benefits which have otherwise been provided to all employees regardless of marital or domestic partner status.

13.9 **AIR OR WATER POLLUTION VIOLATION:** Under the State laws, the Contractor shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

13.10 **CERTIFICATION BY CONTRACTOR OF DISABLED VETERAN BUSINESS ENTERPRISE/SMALL BUSINESS PARTICIPATION**

13.10.1 If, for this agreement, the Contractor made a commitment to achieve disabled veteran business enterprise (DVBE) participation, the Contractor must certify in writing to the State, the total amount the Contractor received under the contract, the name and address of the DVBE firms that participated in the performance of the contract, the amount each DVBE received from the Contractor, that all payments have been made to the DVBE and the actual percentage of DVBE participation achieved. Additionally, if for this agreement, the Contractor made a commitment to achieve 25% Small Business participation, the Contractor must certify in writing to the State, the actual percentage of Small Business participation that was achieved. The Contractor is instructed to comply with the procedures stated in CLOSEOUT PROCEDURES, Section 01 77 00. This certification shall be completed pursuant to Section 999.5 of the Military and Veterans Code (M&VC) and Section 14841 of the Government Code. A person or entity that knowingly provides false information shall be subject to a civil penalty for each violation.

END OF DOCUMENT

DOCUMENT 00 73 00
SUPPLEMENTARY CONDITIONS

Requirements included herein supplement DOCUMENT 00 72 00 - GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION.

1. ARTICLE 1 – GENERAL PROVISIONS

Paragraph 1.1, DEFINITIONS

Add the following definition:

Hazardous Materials: These materials include but are not limited to products and materials containing: Asbestos, Lead, PCB's, Petroleum fuels and lubricants (including chemical additives), oxidizers, corrosives, solvents, acids and carcinogens.

2. ARTICLE 2 – ADMINISTRATION OF THE CONTRACT

Paragraph 2.6, RUSSIAN SANCTION ORDERS

2.6 On March 4, 2022, Governor Gavin Newsom issued Executive Order (EO) N-6-22 regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. The EO directs state agencies to terminate contracts with, and to refrain from entering any new contracts with, individuals or entities that are determined to be a target of Economic Sanctions. Accordingly, should the State determine Contractor is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for termination of this agreement. The State shall provide Contractor advance written notice of such termination, allowing Contractor at least 30 calendar days to provide a written response. Termination shall be at the sole discretion of the State.

Add the following Paragraph 2.7

Paragraph 2.7, GENERATIVE ARTIFICIAL INTELLIGENCE (GenAI) DISCLOSURE OBLIGATIONS

2.7.1 Definitions: The following terms are in addition to the defined terms and shall apply to the Contract:

.1 "Generative AI (GenAI)" means an artificial intelligence system that can generate derived synthetic content, including text, images, video, and audio that emulates the structure and characteristics of the system's training data. (Gov. Code § 11549.64.)

2.7.2 Contractor shall immediately notify the State in writing if it: (1) intends to provide GenAI as a deliverable to the State; or (2), intends to utilize GenAI, including GenAI from third parties, to complete all or a portion of any deliverable that materially impacts: (i) functionality of a State system, (ii) risk to the State, or (iii) Contract performance. For avoidance of doubt, the term "materially impacts" shall have the meaning set forth in State Administrative Manual (SAM) § 4986.2 Definitions for GenAI.

2.7.3 Notification shall be provided to the State's Representative identified in this Contract.

2.7.4 At the direction of the State, Contractor shall discontinue the provision to the State of any previously unreported GenAI that results in a material impact to the functionality of the System, risk to

SUPPLEMENTARY CONDITIONS

the State, or Contract performance, as determined by the State.

2.7.5 If the use of previously undisclosed GenAI is approved by the State, then Contractor will update the Deliverable description, and the Parties will amend the Contract accordingly, which may include incorporating the GenAI Special Provisions into the Contract, at no additional cost to the State.

2.7.6 The State, at its sole discretion, may consider Contractor's failure to disclose or discontinue the provision or use of GenAI as described above, to constitute a material breach of Contract when such failure results in a material impact to the functionality of the System, risk to the State, or Contract performance. The State is entitled to seek any and all remedies available to it under law as a result of such breach, including but not limited to termination of the contract.

3. ARTICLE 3 – CONTRACTOR

Paragraph 3.2, SUPERVISION AND CONSTRUCTION PROCEDURES

3.2.5 Until Acceptance of the Work, the Contractor shall have the charge and care thereof, and shall bear risk of injury or damage to any part of the Work by action on the elements (except for an Act of God, or natural disaster as proclaimed by the State or Federal Government provided that the loss does not involve Contractor negligence and if the Work damaged is built in accordance with the Contract and applicable building standards), or from any other reason except for such damages as are directly caused by acts of the Federal or State Government and the public enemy, except as provided in Paragraph 8.5.

Paragraph 3.3, LABOR AND MATERIALS

3.3.3. Prevailing Wage: The Contractor shall comply with Labor Code Sections 1774 and 1775. Pursuant to Section 1774, the Contractor and every subcontractor, regardless of tier, shall pay not less than the specified prevailing wage rates to all workers employed in the execution of the Contract. In accordance with Section 1775, the Contractor shall forfeit to the State up to \$200 for each day, or portion thereof, for each worker paid less than the prevailing wage rates for the work or craft in which the worker is employed for any work executed under the Contract by the Contractor or by any subcontractor, regardless of tier, in violation of the provisions of the Labor Code; and, in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to such forfeiture, the difference between such stipulated prevailing wage rates and the amount paid to each worker for each day, or portion thereof, shall be paid to each underpaid worker by the Contractor. This provision shall not apply to properly registered apprentices.

- .1 Pursuant to Labor Code, Section 1770, the Director of the Department of Industrial Relations has ascertained the general prevailing rate of per diem wages and a general prevailing rate for legal holiday and overtime work for each craft required for execution of the Contract. The Contractor shall obtain copies of the prevailing rate of per diem wages from the Department of Industrial Relations, Division of Labor Statistics & Research, PO Box 420603, San Francisco, CA 94142-0603, (415) 703-4780; or wage rates may be accessed on the internet at [Prevailing Wage Requirements](#). The Contractor is responsible to read, understand and comply with all the guidelines, including the fine print in the prevailing wage determinations; and shall post a copy of the prevailing wage rates, specific to the Project, at the Project site.
- .2 Wage rates set forth are the minimum that may be paid by the Contractor. Nothing herein shall be construed as preventing the Contractor from paying more than the minimum rates set. No extra compensation will be allowed by the State due to the inability of the Contractor to hire labor at minimum rates, nor for necessity for payment by the Contractor of subsistence, travel time, overtime, or other added compensations, all of which possibilities

are elements to be considered and ascertained to the Contractor's own satisfaction in preparing the Bid Form

- .3 If it becomes necessary to employ crafts other than those listed in the General Prevailing Wage Rate booklet, the Contractor shall contact the Division of Labor Statistics and Research as noted above. The rates thus determined shall be applicable as minimum for the contract and incorporated in the bid. When the wage determination shows an expiration date (noted by a double asterisk**), to expire during the term of the contract, the Contractor must call or write the DIR to obtain the new rates and incorporate them in the bid to be applicable for the term of the contract.
- .4 The Contractor and each subcontractor, regardless of tier, shall keep an accurate payroll record showing the names, addresses, social security numbers, work classifications, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or subcontractor in connection with the Work. Payroll records shall be certified and shall be on forms provided by the Division of Labor Standards Enforcement, or shall contain the same information as those forms. The Contractor's and subcontractor's certified payroll records for each employee shall be submitted with each payment request, covering the period of the payment request unless requested otherwise by the Labor Commissioner of the Department of Industrial Relations pursuant to Labor Code Section 1771.4(c)(2)(b) monthly payrolls should be sent directly to the Department of Industrial Relations in the current prescribed electronic format. Refer to [Certified Payroll Reporting](#) for access to the electronic Certified Payroll (eCRP) Application.
- .5 Labor Compliance Monitoring and Enforcement: This project is subject to monitoring and enforcement by the Department of Industrial Relations (DIR), Compliance Monitoring Unit. All Contractors and subcontractors, regardless of tier, shall be required to comply with the Monitoring and Enforcement Program, including, but not limited to, contractor registration, submittal of electronic certified payroll reports directly to the DIR and cooperation with on-site monitoring by DIR personnel.

Paragraph 3.13, TESTS AND INSPECTIONS

Delete Subparagraph 3.13.1 in its entirety and replace with the following Subparagraph 3.13.1.

3.13.1 The Contractor shall at all times permit the State, its agents, officers, and employees to visit the Project site and inspect the Work, including shops where the work is in preparation. This obligation shall include maintaining proper facilities and safe access for such inspection. Including, but not limited to providing lifts, ladders, scaffolds, platforms and paths of travel. When the Contract Documents require a portion of the Work to be tested, such portion of the work shall not be covered up until inspected and approved by the State. The Contractor shall be solely responsible for notifying the State where and when the work is ready for inspection and testing and shall give written notice no fewer than two business days prior to the time of inspection. For inspections that require the State Fire Marshal's (SFM) presence, the Contractor shall provide the State's Inspector of Record (IOR) written notice where and when the work is ready for inspection no fewer than three business days prior to the time of inspection.

Should any work be covered without the required testing and approval, such work shall be uncovered and recovered at the Contractor's expense.

3.13.2 If the State determines that portions of the Work require additional testing, inspection or approval not included in the Contract Documents, the State will instruct the Contractor, in writing, to make arrangements for additional testing, inspection or approval by an entity acceptable to the State, and the Contractor shall give written notice to the State of where and

when tests and inspections will be conducted no fewer than two business days prior to the time of the additional testing, inspection or approval so that the State may observe the procedures. For inspections that require the State Fire Marshal's (SFM) presence, the State's Inspector of Record (IOR) will make the necessary arrangements with the SFM. The Contractor shall provide a written notice no fewer than three business days prior to the time of inspection.

The State will bear the costs except as provided in Subparagraph 3.13.3.

Paragraph 3.25, CONTRACTOR REQUIRED NOTIFICATION OF CHANGES

3.25 CONTRACTOR REQUIRED NOTIFICATION OF CHANGES: The Contractor shall notify the State's Representative in writing of any change to Contractor's name, status, or information including but not limited to:

1. Name
 - a. An amendment is required to change the Contractor's name as listed on this Agreement. Upon receipt of Contractor's notification and legal documentation of the name change, the State will process the amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.
 - b. The State shall not be liable for penalties or interest on payments which are delayed due to Contractor's change of name and subsequent amendment processing.
2. Address/Location
3. Federal Employer Identification Number (FEIN)
4. Type of Organization or Legal Status – including:
 - a. Corporate
 - b. Partnership
 - c. Individual/Sole-Ownership
 - d. Joint Venture
 - e. Limited Liability Company
 - f. DBA
5. Ownership
6. Officers or Key Personnel
7. License
8. Other (Bankruptcy, Etc.)

Contractor shall immediately provide an updated Standard Form 204 (IRS/FTB form) to the Architectural, Construction and Engineering Contracts Section within five (5) calendar days of any such relevant change.

The State shall not be liable for penalties or interest on payments which are delayed due to Contractor's lack of proper or timely notice and documentation of a relevant change in status which impacts the State's ability to pay.

Contractor shall submit the firm's status change in writing including the Contract Number, Project Title and all necessary backup and legal documentation to support the status change to:

The State Department of General Services, Administration Division
Office of Business and Acquisition Services, Contracts Services Section
707 Third Street, Suite 2-300
West Sacramento, CA 95605-2811

Paragraph 3.4, NONDISCRIMINATION CLAUSE

3.4.1. During the performance of this contract, the recipient, contractor, and its subcontractors shall not deny the contract's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.

3.4.2. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12900 et seq.), the regulations promulgated thereunder (Cal. Code Regs., tit. 2, § 11000 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Gov. Code, §§ 11135-11139.5), and the regulations or standards adopted by the awarding state agency to implement such article.

3.4.3. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing (DEFH) and the awarding state agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause.

3.4.4. Recipient, contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

3.4.5. The contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

3.4.6 STANDARD CALIFORNIA NONDISCRIMINATION CONSTRUCTION CONTRACT SPECIFICATIONS (GOV. CODE SECTION 12990)

These specifications are applicable to all state contractors and subcontractors having a construction contract or subcontract of \$5,000 or more.

- .1 As used in the specifications:
 - a. "Act" means the Fair Employment and Housing Act.
 - b. "Administrator" means Administrator, Office of Compliance Programs, California Department of Fair Employment and Housing, or any person to whom the Administrator delegates authority.
- .2 Whenever the contractor or any subcontractor subcontracts a portion of the work, it shall include in each subcontract of \$5,000 or more the nondiscrimination clause in this contract directly or through incorporation by reference. Any subcontract for work involving a construction trade shall also include the Standard California Construction Contract Specifications, either directly or through incorporation by reference.
- .3 The contractor shall implement the specific nondiscrimination standards provided in paragraphs 6(a) through (e) of these specifications.

SUPPLEMENTARY CONDITIONS

- .4 Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer members of any group protected by the Act shall excuse the contractor's obligations under these specifications, Government Code section 12990, or the regulations promulgated pursuant thereto .5. In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.
- .5 In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.
- .6 The contractor shall take specific actions to implement its nondiscrimination program. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor must be able to demonstrate fully its efforts under steps a. through e. below:
- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and at all facilities at which the contractor's employees are assigned to work. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligations to maintain such a working environment.
 - b. Provide written notification within (7) seven days to the director of the DFEH when the referral process of the union or unions with which the contractor has a collective bargaining agreement has impeded the contractor's efforts to meet its obligations.
 - c. Disseminate the contractor's equal employment opportunity policy by providing notice of the policy to unions and training, recruitment and outreach programs and requesting their cooperation in assisting the contractor to meet its obligations; and by posting the company policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - d. Ensure all personnel making management and employment decisions regarding hiring, assignment, layoff, termination, conditions of work, training, rates of pay or other employment decisions, including all supervisory personnel, superintendents, general foremen, on-site foremen, etc., are aware of the contractor's equal employment opportunity policy and obligations, and discharge their responsibilities accordingly.
 - e. Ensure that seniority practices, job classifications, work assignments, and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the equal

employment opportunity policy and the contractor's obligations under these specifications are being carried out.

- .7 Contractors are encouraged to participate in voluntary associations that assist in fulfilling their equal employment opportunity obligations. The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on equal employment opportunity in the industry, ensures that the concrete benefits of the program are reflected in the contractor's workforce participation, and can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's.
- .8 The contractor is required to provide equal employment opportunity for all persons. Consequently, the contractor may be in violation of the Fair Employment and Housing Act (Government Code section 12990 et seq.) if a particular group is employed in a substantially disparate manner.
- .9 The contractor shall not use the nondiscrimination standards to discriminate against any person because race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status.
- .10 The contractor shall not enter into any subcontract with any person or firm decertified from state contracts pursuant to Government Code section 12990.
- .11 The contractor shall carry out such sanctions and penalties for violation of these specifications and the nondiscrimination clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Government Code section 12990 and its implementing regulations by the awarding agency. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Government Code section 12990.
- .12 The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company equal employment opportunity policy is being carried out, to submit reports relating to the provisions hereof as may be required by OCP and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, status, (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in any easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

4. ARTICLE 4 – SUBCONTRACTORS

Paragraph 4.2, SUBCONTRACTUAL RELATIONS

4.2.2 Subcontractor Payments: Subcontractors and Sub-subcontractors shall be paid for work performed in accordance with Public Contract Code Sections 10262 and 10262.5.

4.3 DISABLED VETERAN BUSINESS ENTERPRISE PROGRAM: Pursuant to Public Contract Code (PCC) Section 10115 et. seq., the Contractor shall use, employ and utilize Disabled Veteran Business Enterprise (DVBE) subcontractors, sub-subcontractors or material suppliers who were listed in their bid documents for DVBE Program participation, to the full extent of the amount of money and/or percentage of commitment manifested in the bid documents. If the Contractor wishes to substitute any listed DVBE subcontractors, sub-subcontractors or material suppliers for just and legal cause, the Contractor shall follow the dictates of PCC Sections 4107 and 10115.12b, as well as Military and Veterans Code (M&VC) Section 999.5(e) and California Code of Regulations, Title 2, Section 1896.64. The DVBE may only be replaced by another DVBE and shall obtain the written authorization of the State prior to any such substitutions. The Contractor shall not unilaterally substitute a listed DVBE subcontractor, sub-subcontractor or material supplier. Failure of Contractor to seek substitution and adhere to the DVBE participation requirement identified in the bid may be cause for contract termination, recovery of damages under rights and remedies due to the State, and penalties as outlined in M&VC Section 999.9; PCC Sections 4110 and PCC Section 10115.10.

5. ARTICLE 7 – TIME

Paragraph 7.2, CONTRACT TIME

7.2.1 Time is of the Essence in this Contract. The Contractor shall complete all the Work of the Contract within the Contract Time of:

ONE HUNDRED AND EIGHTY FOUR (184)

calendar days, starting on the Start Date stipulated in the Notice to Proceed, which the Contractor will receive not less than 5 days in advance.

7.2.2 Hazardous Materials Removal Work: Within the Contract Time specified in Subparagraph 7.2.1, Contractor shall complete the Hazardous Materials removal work in accordance with the following schedule, commencing on same date as the entire Contract:

- | | |
|--|---------------|
| .1 Complete Hazardous Materials removal submittals within the following number of calendar days: | FOURTEEN (14) |
| .2 Allow the following number of calendar days for the State's review and acceptance of Hazardous Materials removal submittals: | FOURTEEN (14) |
| .3 Allow the following number of calendar days from date of written notification to start of on-site Hazardous Materials removal work: | FOURTEEN (14) |
| .4 Complete on-site Hazardous Materials removal work within the following number of working days *: | THIRTY (30) |
| (* not to exceed one 8-hour shift per working day. Working days shall be as specified in Section 01 11 00, Article 1.10.) | |
| .5 Allow the following number of calendar days for the State's review and certification of Hazardous Materials removal: | SEVEN (7) |

7.2.2 Mental Health Building: Within the Contract Time specified in Subparagraph 7.2.1, Contractor shall complete the Mental Health Building, in accordance with the following schedule, commencing on the same date as the entire Contract:

- .1 Complete Mental Health Building within the following number of calendar days:
ONE HUNDRED EIGHTY (180)

7.2.3 Hazardous Materials Removal Work in the Existing Infirmary: Within the Contract Time specified in Subparagraph 7.2.1, Contractor shall complete the Hazardous Materials removal work in the existing Infirmary in accordance with the following schedule, commencing on a date of which the Contractor will be notified not less than 10 calendar days in advance:

- .1 Complete on-site Hazardous Materials removal work in the existing Infirmary within the following number of working days *:

TWENTY-FIVE (25)

(* not to exceed one 8-hour shift per working day.
Working days shall be as described in
Section 01 11 00, Article 1.10)

- .2 Allow the following number of calendar days for the State's review and certification of Hazardous Materials removal:

FOURTEEN (14)

Paragraph 7.3, LIQUIDATED DAMAGES

Add the following Subparagraphs 7.3.1 and 7.3.2:

7.3.1 The Contractor shall pay to the State the sum of \$1800. per day for each and every calendar day delay in finishing of Work under this Contract beyond the Contract time.

7.3.2 If the Contractor is more than 14 calendar days behind schedule at any point during the Contract Time, based on the latest updated Official Progress Schedule, the State will withhold \$1800. per day for each and every day that the Contractor is behind schedule from the monthly payment for that month. If the Contractor recoups all or a portion of the delay during the next pay period, the amount withheld will be reduced accordingly.

7.3.3 Hazardous Materials Removal Work: Contractor shall pay to the State the sum of \$1,000 per day for air monitoring by State's Observation Service and other costs for each and every working day's delay in finishing the on-site Hazardous Materials removal work under this Contract beyond the scheduled Contract time set forth in Clause 7.2.3.1.

7.3.4 Should Contractor have no work force present for Hazardous Materials removal work on any scheduled work day, Contractor will be required to pay the State the sum of \$1,000 for air monitoring by State's Observation Service and other costs for each such missed work day, unless the Contractor notifies the State Inspector at least 48 hours in advance, for each particular work day which the Contractor expects no work force to be present.

6. ARTICLE 8 – PAYMENTS AND COMPLETION

Paragraph 8.2, TIMELINESS OF PAYMENTS

- 8.2.3 The State will make progress payments pursuant to Public Contract Code, Sections 10261 and 10261.5.

Paragraph 8.3, RETENTIONS

- .2 The State shall retain 5 percent of the estimated value of Work completed.

Paragraph 8.5, OCCUPANCY BY THE STATE PRIOR TO COMPLETION OF THE WORK

- 8.5.1 The State reserves the right to occupy all or any part of the Project prior to Completion of the Work, upon written notice. Such occupancy or use is herein referred to as Beneficial Occupancy. In this event, the Contractor shall be relieved of responsibility to the State for liability arising out of such occupancy by the State.

7. ARTICLE 11 – INSURANCE AND BONDS

Paragraph 11.1, CONTRACTOR'S INSURANCE

11.1 CONTRACTOR'S INSURANCE

11.1.1 General Insurance Requirements:

- .1 Contractor shall procure and maintain insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Contractor, its agents, representatives, employees or subcontractors.
- .1 Contractor shall furnish the State with certificates and endorsements effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the State before work commences.
- .2 The State reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.
- .2 Insurance Companies shall be acceptable to Department of General Services (DGS) and Office of Risk and Insurance Management (ORIM). Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-VII, unless otherwise acceptable to DGS, Office of Risk and Insurance Management. Exception may be made for the State Compensation Insurance Fund. If self-insured, review of financial information may be required.
- .3 Except as otherwise provided for Builders Risk/Installation Floater under Clause 11.1.2.4, all coverage shall be in force until the Acceptance of the Work by the Director of DGS. If the insurance expires, the Contractor shall immediately provide a new current certificate or be declared in breach of Contract. The State reserves the right to withhold all progress and retention payments until the breach is cured to the satisfaction of the State. Renewal insurance certificates must be tendered to the State prior to or exactly at the expiration of the previous insurance certificate. There shall be no gap in insurance coverage. This renewed insurance shall be in accordance with the terms of the Contract.
- .4 Contractor is responsible to notify the State a minimum of five (5) business days before the effective date of any cancellation, non-renewal or material change that affects required insurance coverage.

- .5 Unless otherwise stated in the contract, the Contractor shall be responsible for any premium deductible or self-insured retention contained within the insurance.
- .6 All insurance policies required by this contract must allow the State to pay and/or act as the contractor's agent in satisfying any self-insured retention (SIR). The choice to pay and/or act as the contractor's agent in satisfying any SIR is at the State's discretion.
- .7 In the event the Contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to the remedies noted in Article 11.1.1.3 above and any other remedies it may have, remove the Contractor from the work site and/or may terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract.
- In the event, the State elects to remove the Contractor from the work site, the Contractor will not be entitled to additional days or compensation.
- .8 Any insurance required to be carried shall be primary and not excess or contributory, to any other insurance carried by the State.
- .9 Any required endorsement requested by the State must be submitted with all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- .10 Minimum Scope of Insurance - Coverage shall be at least as broad as:
- .1 Insurance Services Office Commercial General Liability coverage (occurrence Form CG 0001). .2 Insurance Services Office Form Number CA 0001 covering Automobile Liability, "any auto", or "all owned, hired and non-owned".
- .11 All coverage and limits available to the contractor shall also be available and applicable to the State.
- .12 Contractor shall procure and maintain insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees, or subcontractors.
- .13 With the exception of Builders Risk/Installation Floater, Contractor shall require and verify that all subcontractors maintain insurance coverage and limits meeting or exceeding all the requirements stated herein. Contractor shall ensure that the Department of General Services and the State of California, its officers, agents, and employees, as additional insured on insurance required from subcontractors but only insofar as the operations under the Contract are concerned. For Commercial General Liability coverage subcontractors shall provide coverage with a form at least as broad as CG 20 38 04 13. The State reserves the right to require the Contractor to provide the subcontractors' insurance certificates and policies, when so directed by the State.
- 11.1.2 Insurance Requirements: The Contractor shall furnish to the State evidence of the required insurance as follows:
- .1 Commercial General Liability: The Contractor shall maintain commercial general liability with limits of not less than \$5,000,000 per occurrence for bodily injury and property damage liability combined. 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. If the aggregate applies "per project or location", it shall so state on the certificate. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal and advertising injury, and liability assumed under an insured contract. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy shall include the Department of General Services and the State of California, its officers, agents, and employees, as additional insureds, but only insofar as the operations under the Contract are concerned.

SUPPLEMENTARY CONDITIONS

- .1 Additional Insured coverage shall be provided in the form of an insured endorsement as broad as the (CG 20 10 11 85) to the contractor's insurance policy. All coverage and limits available to the named insured shall be available and applicable to the additional insured. The endorsement must be attached to the certificate.
- .2 Deductibles and Self-Insured Retentions (for Commercial General Liability): Any deductibles or self-insured retentions must be declared to and approved by the State. At the option of the State, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the State of California and the Department of General Services, its officers, agents, employees and servants or the Contractor shall provide a financial guarantee satisfactory to the State guaranteeing payment of losses and related investigations, claim administration, and defense expenses.
- .2 Automobile Liability: The Contractor shall maintain motor vehicle liability with limits of not less than \$1,000,000 per accident for bodily injury and property damage. The State is to be covered as additional insured with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the contractor. The policy shall include the Department of General Services and The State of California, its officers, agents, and employees, as additional insureds, but only insofar as the operations under the Contract are concerned. All coverage and limits available to the named insured shall also be available and applicable to the additional insured.
- .3 Workers' Compensation: The Contractor shall maintain statutory workers' compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Contract, including special coverage extensions where applicable as required by the State of California. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the State for all work performed by the contractor, its employees, agents and subcontractors. Except for State Fund certificates, all subrogation waiver endorsements shall be submitted on a separate form. The Contractor shall maintain Employer's Liability coverage of \$1,000,000 per accident for bodily injury or disease.
- .4 Builders Risk/Installation Floater: The State shall insure all Work while in the course of construction, reconstruction, remodeling or alteration, including materials incorporated in the Work, against physical loss or damage resulting from the perils normally insured under an All Risk Builders Risk/Installation Floater policy, including, but not limited to theft, fire and vandalism. The State will self-insure against Acts of God and natural disasters proclaimed by the State or Federal Government. The State will issue to the Contractor a "Summary of Coverage" provided under this Clause 11.1.2.4 Summary of Coverage and Certificate of Insurance will be provided to contractor as part of the executed contract.
 - 1 Contractor shall be responsible for paying a deductible not to exceed "to be determined on the certificate of insurance following project enrollment" per occurrence in the event of loss.
 - .2 The proceeds under the Builder's Risk/Installation Floater Insurance procured by the State will be payable to the State and Contractor as their respective interests, from time to time, may appear.
 - .3 State's Builders Risk/Installation Floater Insurance shall provide limited coverage for materials in transit and materials stored off-site, and full coverage for materials at the Project site; however, the Contractor is responsible for reviewing the "Summary of Coverage" and reporting values that exceed the limits provided within the Summary of Coverage. Notification to the State does not provide coverage. Value increases must be approved by the insurance carrier and contractor must have a Certificate of Insurance issued by the insurance carrier showing the increased values. Lacking confirmation from the State's insurance carrier that additional coverage was procured, Contractor will be responsible for damages in

SUPPLEMENTARY CONDITIONS

- excess of the coverage limits provided within the Summary of Coverage.
- .4 Nothing in this Clause 11.1.2.4 shall be construed to relieve the Contractor of Contractor's responsibilities referred to under Clause 11.1.1 and Clause 11.1.2.
 - .5 Insurance policies referred to in this Clause 11.1.2.4 shall provide the following:
 - .1 That the policies are primary and do not participate with nor are excess over any other valid collectible insurance carried by the Contractor.
 - .2 That the Insurer waives the right of subrogation against the Contractor.
 - .7 Pollution Liability: The Contractor shall maintain or shall cause the hazardous materials subcontractor(s) to maintain, Pollution Liability coverage for Contractor's liability for bodily injury, property damage and environmental damage resulting from pollution and related cleanup costs directly or indirectly caused by the hazardous material mitigation work, or related services to be performed.
 - .1 Coverage shall be provided for work performed on site as well as during handling and transport of hazardous materials.
 - .2 Limit of not less than \$1,000,000 per occurrence and shall be required.
 - .3 The Contractor, or the hazardous materials mitigation subcontractor(s), shall maintain this required Pollution Liability coverage during each single period, or multiple periods, of hazardous material mitigation work. This coverage may be effected in conjunction with the Contractor's General Liability coverage as long as coverage is provided for the Contractor's liability for bodily injury, property damage and environmental damage resulting from pollution and related cleanup costs directly or indirectly caused by the scope of work or related services within this contract; a separate pollution limit of insurance is required. In cases where the Pollution Liability coverage is not required for the complete term of the Contract, the length of time, and periods of time, that this insurance coverage is required may be determined by the State in accordance with the commencement and cessation dates in the Contractor's Progress Schedule, as accepted by the State in writing. When timing, conditions, and/or the needs of the State warrant, the State reserves the right to set the term of the Pollution Insurance prior to execution of the contract.
 - .1 The Transporter of hazardous materials, whether the Contractor or a subcontractor shall produce to the State a Certificate of Liability Insurance for Pollution Liability Coverage mandated by law with a copy of the MCS-90.
 - .2 The MCS-90 Form is effected through the Transporters Automobile liability insurance carrier.
 - .4 The policy, whether obtained by the Contractor, or by the hazardous materials mitigation subcontractor(s), shall include the Department of General Services and the State of California, its officers, agents, and employees as additional insureds, but only insofar as the operations under the Contract are concerned. All coverage and limits available to the named insured shall also be available and applicable to the additional insured.
 - .5 The insurance certificate shall name the State of California, Department of General Services, as certificate holder.
 - .6 If there is change in the hazardous materials mitigation work, then the Pollution Insurance requirements affected by such change must be effected by an Amendment to the Contract.

END OF DOCUMENT

STATE OF CALIFORNIA DEPARTMENT OF GENERAL SERVICES
REAL ESTATE SERVICES DIVISION
PROJECT MANAGEMENT AND DEVELOPMENT BRANCH



Date: July 21, 2025

DOCUMENT 00 91 13

ADDENDUM No. 1 TO THE CONTRACT DOCUMENTS

Bid Due Date – September 2, 2025

DSH ADMIN. & ANNEX BUILDING REROOF
DEPARTMENT OF STATE HOSPITALS
PATTON STATE HOSPITAL
PATTON, SAN BERNARDINO, CALIFORNIA

PROJECT NO. 0000000000010039

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON BID FORM AND
REVISE THE CONTRACT DOCUMENTS AS FOLLOWS:

PROJECT MANUAL

INTRODUCTORY INFORMATION

1. DOCUMENT 00 01 10 - TABLE OF CONTENTS

SPECIFICATIONS

A. DIVISION 01 - GENERAL REQUIREMENTS

DELETE Section 01 45 33 - Asbestos Abatement Observation in its entirety.
Asbestos is not anticipated to be encountered in this Project.

B. DIVISION 02 – EXISTING CONDITIONS

ADD the attached Section 02 40 00, Demolition, pages 1 through 3.

C. DIVISION 13 - SPECIAL CONSTRUCTION

DELETE Section 13 11 00 – Swimming Pools in its entirety.

2. DOCUMENT 00 01 15 - LIST OF DRAWINGS

A. ARCHITECTURAL

ADD the attached Addendum No. 1 Drawing Sheet A-6, dated 7-21-2025; showing additional areas of alterations.

BIDDING REQUIREMENTS

1. DOCUMENT 00 11 00 - INVITATION TO BID

- A. REMOVE DOCUMENT 00 11 00 INVITATION TO BID AND
ADD DOCUMENT 00 11 00 Addendum 1 dated July 21, 1999 making the following changes:

CHANGE bid due date from August 19, 2025 to September 5, 2025.

CHANGE date of Pre-Bid Site Inspection tour from July 24, 1999, to August 19, 2025.

2. DOCUMENT 00 21 00 - INSTRUCTIONS TO BIDDERS

- A. ARTICLE 2., COMPETENCE OF BIDDERS

DELETE Paragraph 2. c., Asbestos Abatement Certification and Registration.

3. DOCUMENT 00 41 00 – BID FORM

- A. CHANGE bid due date from August 14, 1999 to August 21, 1999.

Revised Bid Forms will not be issued to Bidders. Bidders shall change date on originally issued Bid Forms.

CONTRACTING REQUIREMENTS

1. DOCUMENT 00 73 00 – SUPPLEMENTARY CONDITIONS

- A. REMOVE DOCUMENT 00 73 00 SUPPLEMENTARY CONDITIONS AND
ADD DOCUMENT 00 73 00 SUPPLEMENTARY CONDITIONS Addendum 1 dated July 21, 1999 making the following changes:

PARAGRAPH 7.3, LIQUIDATED DAMAGES

CHANGE amount of liquidated damages in Subparagraphs 7.3.1 and 7.3.2
from \$300 to \$500 per calendar day.

SPECIFICATIONS

1. SECTION 05 50 00 – METAL FABRICATIONS

- A. ARTICLE 2.01, FERROUS METALS

ADD the following Subarticle 2.01 E:

E. Steel Tubing: Cold formed, ASTM A500; or hot-rolled, ASTM A501.

DRAWINGS

1. **SHEET D-2**

NOTES

DELETE Note 2 as written and **REPLACE** with the following:

2. See Sheet E-1 for removal of electrical equipment.

2. **SHEETS M-2 AND M-3**

REMOVE Sheets M-2 and M-3 from set of Drawings originally issued and **ADD** Addendum No. 2 Drawing Sheets M-2 and M-3, dated 7/21/99; showing revisions indicated by "cloud" outline and triangle symbol No. 1.

3. **SHEET M-4**

ADD the following notes 5 and 6:

5. Extend new vent lines to outside the building.
6. Extend new drain lines to floor drains.

END OF ADDENDUM NO. 1

ATTACHMENTS:

Specifications, Section 02 40 00, Demolition, pages 1 through 3.

Addendum No. 1 Drawing Sheets A-6, M-2 and M-3.

SECTION 01 10 00

SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

- A. Work required to be performed by the Contractor comprises:

**ADMINISTRATION & ANNEX BUILDING REROOF
DEPARTMENT OF STATE HOSPITALS
PATTON STATE HOSPITAL
3102 HIGHLAND AVE
PATTON, CALIFORNIA, 92369**

1. in conformity with the Drawings and Specifications hereinafter identified; including furnishing all material, labor, plant, tools, equipment, and services necessary therefor and incidental thereto, complete and ready for use, except as hereinafter otherwise provided.

1.2 WORK NOT INCLUDED

- A. Except for such auxiliary work as is shown or specified or is necessary as a part of the construction, the following work is NOT included in this Contract.
1. Work shown but marked "NIC" (Not in Contract). "BUA" (By Using Agency), or otherwise designated to be done by others.

1.3 PROJECT INFORMATION

- A. Project Location: **3102 E. Highland Avenue, Patton, San Bernardino, CA 92369.**
- B. Project Identification: **000000000010039.**
- C. Web-Based Project Software: Project software will be used for purposes of managing communication and documents during the construction stage.
1. See Sections 01 31 00 "Project Management and Coordination" and 01 31 25 "Web-based Project Management System" for requirements for using web-based project software.

1.4 SPECIFICATIONS

- A. The Specifications are those bound in the Project Manual and enumerated in the Table of Contents. The General Conditions of the Contract for Construction, Supplementary Conditions, and Division 01 of the Specifications apply to all Work of this Contract.

1.5 DRAWINGS

- A. The Drawings consist of Drawing Sheets as listed in Document 00 01 15 of Project Manual.

1.6 CONTRACTOR'S SET OF DRAWINGS AND PROJECT MANUALS

- A. State Furnished Drawings and Project Manuals: Upon award of Contract, the State will provide Drawings and Project Manuals upon Contractor's request as follows:
 - 1. Electronic Files in PDF format.
 - 2. Drawings: 7 sets
 - 3. Project Manuals: 7 sets.
 - 4. One set of State furnished Drawings shall be used as record prints.
- B. Additional Sets shall be the responsibility of the contractor.

1.7 PHASED CONSTRUCTION

- A. Work of this Contract shall be executed in one phase.

1.8 SPECIAL SECURITY PROCEDURES

- A. Cooperate with the authorities and observe and comply with all regulations presently in force on facility grounds. Refer to Section **01 35 53 "Security Procedures"**.
- B. After award of Contract, there will be a project start meeting, at which time security regulations will be reviewed with the Contractor and subcontractors.

1.9 INTERRUPTION OF SERVICES

- A. Make provisions to accomplish the work of this Contract without undue interference with facility operations. Interruptions to services for the purpose of making or breaking connection shall be made only after consultation with the State, minimum of one week in advance of connection break, and shall be at such time and of such duration as may be directed.
- B. In addition, existing electrical, mechanical and security lines disconnected for work of this Contract shall not remain disconnected for more than 4 hours. If electrical power cannot be restored within the 4-hour period, provide temporary electrical service to restore required electrical power at Contractor's expense.

1.10 SEQUENCE OF CONSTRUCTION OPERATIONS

- A. Before starting construction operations, confer with the State to review sequence of construction operations.
- B. Prepare schedules as set forth in Section 01 32 00 "Construction Progress Documentation".

1.11 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work to between **7:30** a.m. to **4:30** p.m., Monday through Friday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by State and authorities having jurisdiction.
 - 1. Weekend Hours and State Holidays: Work may be permitted if approval is received from the State at least 3 working days in advance.
 - 2. Early Morning Hours: 7:00 a.m to 4:30 p.m. Coordinate with Project Director and DSH Staff.
 - 3. Hours for Utility Shutdowns: If required, coordinate with Project Director and DSH Staff.
- C. On-Site Work Day Restrictions: Do not perform work on-site during work black-out days indicated below:
 - 1. All State Holidays. Confirm State Holidays with Project Director and DSH Staff.
- D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by State or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:
 - 1. Notify State's Representative not less than **two** days in advance of proposed utility interruptions.
 - 2. Obtain State's written permission before proceeding with utility interruptions.
- E. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to State occupancy with State.
 - 1. Notify State's Representative not less than **two** days in advance of proposed disruptive operations.
 - 2. Obtain State's Representative's written permission before proceeding with disruptive operations.
- F. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor-air intakes.

1.12 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section. Contractor's use of Project site is limited by State's right to perform work or to retain other contractors on portions of Project.
- B. Limits on Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Driveways, Walkways and Entrances: Keep driveways, parking areas, loading areas, and entrances serving premises clear and available to State, State's employees, and

emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

- a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - 1) If deliveries will impact State's operations, request State's approval 48 hours prior to delivery.
- b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.13 COORDINATION WITH OCCUPANTS

- A. Full State Occupancy: State will occupy Project site and **existing** building(s) during entire construction period. Cooperate with State during construction operations to minimize conflicts and facilitate State usage. Perform the Work so as not to interfere with State's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from State and approval of authorities having jurisdiction.
 - 2. Notify State not less than **48** hours in advance of activities that will affect State's operations.
- B. Partial State Occupancy: State will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with State during construction operations to minimize conflicts and facilitate State usage. Perform the Work so as not to interfere with State's operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from State and authorities having jurisdiction.
 - 2. Provide not less than **48** hours' notice to State of activities that will affect State's operations.
- C. Use only State approved designated areas for work operations or storage.

1.14 HAZARDOUS MATERIALS ANTICIPATED ON-SITE

- A. It is anticipated that **lead paint, asbestos** exist in the work area and may be encountered during execution of the work.
- B. If existing construction materials are identified as containing hazardous materials and/or are disturbed while performing work under this Contract cease work around the suspect area immediately and notify the State. Site conditions and extent of hazardous materials removal related work will be assessed by the State. Affected work activities under this Contract shall not resume until determination is made by the State.

1.15 PUBLIC CONTRACT CODE – SPECIFIC PRODUCTS

- A. Pursuant to Public Contract Code, Sections 3400 and 10129, the Department of General Services has made a finding that due to operational issues, the following products shall be exclusively

used, in order to match other products in use at the Patton State Hospital Admin and Annex Building.

PART 2 - PRODUCTS (See Specifications Section)

PART 3 - EXECUTION (See Specifications Section)

END OF SECTION

SECTION 01 21 00

ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - 2. Unit-cost allowances.
 - 3. Quantity allowances.
 - 4. Contingency allowances.
 - 5. Testing and inspecting allowances.

1.2 DEFINITIONS

- A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.3 SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 ALLOWANCE(S)

- A. Allowance shall include cost to Contractor of specific products and materials ordered by or selected by the State under allowance and shall include taxes, freight, delivery to, labor, and installation at Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, protection from damage, overhead and profit, other expenses required to complete the Work, and similar costs related to products and materials ordered by or selected by the State under allowance shall be included as part of the Contract Sum and not part of the allowance.

ALLOWANCES

- C. The State will review and delineate allowance work with Contractor.

1.5 CONTRACTOR RESPONSIBILITY FOR ALLOWANCE ITEMS

- A. Make all arrangements for performance of allowance work.
- B. Submit to State certified copies of invoices, bills of sale or other documents authenticating costs incurred by Contractor for allowance items.

1.6 ADJUSTMENT OF COSTS

- A. Should net cost be more or less than specified amount of allowance, the Contract Sum will be adjusted accordingly by a Change Order in compliance with requirements of the Document 00 72 00 "General Conditions of the Contract for Construction".

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 33: Lump-Sum Allowance: Include the sum of \$50,000. Include furnishing labor, services, transportation and material for replacement or repair of structural components.
- B. Allowance No. 33: Lump-Sum Allowance: Include the sum of \$25,000. Include for unknown Hazardous Material abatement.

END OF SECTION

ALLOWANCES

RESDMSTR: 3/31/2025 01 21 00 - 2 000000000010039

SECTION 01 25 00
SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.
1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.

1.3 ACTION SUBMITTALS

- A. Substitution Requests: Submit documentation identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Substitution Request Form: Use form **acceptable to State**.
 2. Documentation: Show compliance with requirements for substitutions per Article 3.12.10, Document 00 72 00 "General Conditions of the Contract for Construction", and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
 - b. Coordination of information, including a list of changes or revisions 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 substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.

SUBSTITUTION PROCEDURES

- h. 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.

1.4 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.5 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.6 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 29 00

PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the Schedule of Values with items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the Schedule of Values to State at earliest possible date, but no later than 14 days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. State's Project number.
 - c. Contractor's name and address.
 - d. Date of submittal.
 - 2. Arrange the Schedule of Values in tabular form, with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or division.
 - b. Description of the Work.
 - c. Change Orders (numbers) that affect value.
 - d. Dollar value, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent. Round dollar amounts to whole dollars, with total equal to Contract Sum.
 - 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports.
 - 4. Allowances: Provide a separate line item in the schedule of values for each allowance.
 - 5. Overhead Costs, Proportional Distribution: Include total cost and proportionate share of general overhead and profit for each line item.
 - 6. Schedule of Values Revisions: Revise the Schedule of Values when Change Orders result in a change in the Contract Sum. Include at least one separate line item for each Change Order.

PAYMENT PROCEDURES

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments.
- B. Payment Application Times: The date for each progress payment shall be established by the State. The period covered by each Application for Payment is one month.
1. Submit draft copy of Application for Payment three days prior to due date for review by State Construction Supervisor/Inspector.
 2. State Construction Supervisor/Inspector will review the draft with the Contractor to verify requested payment percentages.
 3. Submit Application for Payment upon approval by the State Construction Supervisor/Inspector.
- C. Application for Payment Forms: Submit forms for approval with initial submittal of schedule of values.
- D. Application Preparation: Complete every entry on form. State will return incomplete applications without action.
1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 3. Include amounts of Change Orders issued before last day of construction period covered by application.
- E. Partial payment for "mobilization" shall be made in percentages as follows (less retainage):
- | Contract Amount Completed | Payment for Mobilization |
|---------------------------|---|
| 5 % | 50% of amount bid for mobilization, or 5% of original Contract amount, whichever is lesser. |
| 10% | 75% of amount bid for mobilization, or 7.5% of original Contract amount, whichever is lesser. |
| 20% | 95% of amount bid for mobilization, or 9.5% of original Contract amount, whichever is lesser. |
| 50% | 100% of amount bid for mobilization, or 10% of original Contract amount, whichever is lesser. |
1. Upon completion of all Work on the Project, payment of any amount bid for mobilization in excess of 10% of the original Contract amount will be paid.
- F. Project Record Drawings: Prior to each Application for Payment review, update Project Record Documents as required by Section 01 77 00 "Closeout Procedures" and submit for the State's review and approval. Monthly Applications for Payment will not be processed without review and approval of Project Record Drawings by the State.
- G. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored subject to or under the control of the State, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to State, and consent of surety to payment for stored materials.

PAYMENT PROCEDURES

2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- H. Transmittal: Submit Application for Payment signed by the Contractor and State Construction Supervisor/Inspector to the State.
1. Submit with each Application for Payment such evidence as may be necessary to demonstrate costs incurred or estimated to be incurred in accordance with the Schedule of Values during such month and the percentage of completion of each category of Work.
 2. Submit with each Application for Payment certified payroll records for each Contractor's and Subcontractor's employee per Document 00 72 00 "General Conditions of the Contract for Construction." Copies of the monthly payroll shall be sent directly to the Department of Industrial Relations in the current prescribed electronic format with evidence of such submission provided with each Application for Payment to the State.
- I. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. Schedule of values.
 2. Contractor's construction schedule (preliminary if not final).
 3. Key Personnel Names List.
- J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited to, the following:
1. Evidence of completion of Project closeout requirements in accordance with Section 01 77 00 "Closeout Procedures."
 2. Certification of completion of final punch list items.
 3. Warranty certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 4. Evidence that disputes have been settled.

PART 2 - PRODUCTS (See Specifications Section)

PART 3 - EXECUTION (See Specifications Section)

END OF SECTION

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Requests for Information (RFIs).
 - 3. Digital project management procedures.
 - 4. Web-based Project management software package.
 - 5. Project meetings.

1.2 SUBMITTALS

- A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals, and their duties and responsibilities, list telephone numbers, and e-mail addresses. Provide names, e-mail addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project. Keep list current at all times.

1.3 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Subletting and Subcontracting Responsibilities: Refer to Document 00 72 00 "General Conditions of the Contract for Construction", Article 4.
 - 2. Schedule construction operations in sequence required to obtain the best results, where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 3. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 4. Coordinate the Work with related work being done by the State and other contractors operating in the area. This coordination shall include reasonable adjustments of schedule in order to allow other contractors or State to do their work. Make provisions for accommodating items installed by the State or under separate contracts.
 - 5. Make adequate provisions to accommodate items scheduled for later installation.
 - 6. Carefully examine Drawings relating to entire work with actual conditions so that Work will be accommodated in spaces provided. General arrangement and location of elements of various systems is shown on the Drawings or specified. Final locations, levels, etc., shall be governed by actual material size used, by building conditions encountered, and by work of all trades. Space conflicts and interferences shall be resolved before work is installed.

- B. Site Examination: Visit the site prior to commencement of the Work and get familiar with existing conditions. Be prepared to carry out the Work within existing limitations.
 - 1. Inspect and take responsibility for previously prepared or installed work of other contractors before applying subsequent materials or finishes. If work is in unsatisfactory condition, notify the State. Do not proceed until defective work has been corrected.
- C. Work Layout
 - 1. Property lines, location ties, and elevations of components of the Project to be built under this Contract are shown on the Drawings. Grade elevations shown for various parts of the Work are taken from a benchmark shown on the Drawings, or if not shown, will be designated by the State. In case of conflict therein, notify the State in writing before starting work.
 - 2. Layout the Work and furnish surveys required for alignment and elevations of the Work. Furnish necessary lines, levels, locations, measurements and markers for all the Work and be responsible for their accuracy.
 - 3. On building structures, layout on forms, walls, floors, and columns, the exact location of partitions as guide to all trades.
- D. Allowable Entrance: Contractor, subcontractors, their employees, suppliers and delivery persons shall enter and exit property via designated entrance.
- E. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities 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. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.

1.4 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1. State will return without response those RFIs submitted to State by other entities controlled by Contractor.
 - 2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 - 1. Project name.
 - 2. State's Representative name.
 - 3. State's Project number.
 - 4. Date.

5. Name of Contractor.
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 suggested resolution 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 Forms: Form bound in Project Manual or software-generated form with substantially the same content as indicated above, acceptable to the State.

1. Attachments shall be electronic files in PDF format.

- D. State's Action: State will review each RFI, determine action required, and respond.

1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of State's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
2. State's action may include a request for additional information, in which case State's time for response will date from time of receipt by State of additional information.
3. State's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Document 00 72 00 "General Conditions of the Contract for Construction".

1.5 DIGITAL PROJECT MANAGEMENT PROCEDURES

- A. State's Data Files Not Available: State will not provide State's CAD drawing digital data files for Contractor's use during construction.

1. Digital data files may be used by Contractor in preparing coordination drawings, Shop Drawings, and Project Record Drawings.
2. State makes no representations as to the accuracy or completeness of digital data files as they relate to Contract Drawings.
3. Contractor shall execute a data release agreement in the form provided by the State upon request.

- B. Web-Based Project Management Software Package: Use State's web-based Project management software package for purposes of hosting and managing Project communication and documentation until Acceptance of the Work.

PROJECT MANAGEMENT AND COORDINATION

1. Web-based project management software includes, at a minimum, the following features:
 - a. Compilation of Project data, including Contractor, subcontractors, State, State's consultants, and other entities involved in Project. Include names of individuals and contact information.
 - b. Access control for each entity for each workflow process, to determine entity's digital rights to create, modify, view, and print documents.
 - c. Document workflow planning, allowing customization of workflow between project entities.
 - d. Creation, logging, tracking, and notification for Project communications required in other Specification Sections, including, but not limited to, Requests for Information, Submittals, Additional Detailed Instructions, Potential Changer Orders (PCO's), Inspection requests, and executed Change Orders.
 - e. Track status of each Project communication in real time, and log time and date when responses are provided.
 - f. Procedures for handling PDFs or similar file formats, allowing markups by each entity. Provide security features to lock markups against changes once submitted.
 - g. Processing and tracking of payment applications.
 - h. Processing and tracking of contract modifications.
 - i. Creating and distributing meeting minutes.
 - j. Document management for Drawings, Specifications, and coordination drawings, including revision control.
 - k. Management of construction progress photographs.
 - l. Mobile device compatibility, including smartphones and tablets.
2. The web-based project management system is Procore (www.procore.com) and is updated monthly.

1.6 PROJECT MEETINGS

- A. General: State will schedule and conduct, unless otherwise indicated, meetings and conferences at Patton State Hospital (3102 E. Highland Avenue, Patton, CA 92369), San Bernardino County) or by Microsoft Teams (online) via State's discretion.
 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify State of scheduled meeting dates and times a minimum of 10 working days prior to meeting.
 2. Agenda: Entity responsible for conducting meeting will prepare the meeting agenda, and distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, within three days of the meeting.
- B. Preconstruction Conference: State will schedule and conduct a preconstruction conference before starting construction, at a time convenient to State, but no later than 15 days after execution of the Agreement.
 1. Attendees: Authorized representatives of State, Project Director, Architect or Engineer, and their consultants, State Construction Supervisor/Inspector; Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the conference. 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 but not limited to the following:
 - a. Responsibilities and personnel assignments.
 - b. Tentative construction schedule.
 - c. Phasing.
 - d. Critical work sequencing and long lead items.
 - e. Lines of communications.
 - f. Use of web-based Project software.
 - g. Procedures for processing field decisions and Change Orders.
 - h. Procedures for RFIs.
 - i. Procedures for Quality Assurance / Quality Control (testing and inspecting).
 - j. Procedures for processing Applications for Payment.
 - k. Distribution of the Contract Documents.
 - l. Submittal procedures.
 - m. Sustainable design requirements including commissioning.
 - n. Preparation of Record Documents.
 - o. Use of the premises and existing buildings.
 - p. Allowable entrance.
 - q. Work restrictions.
 - r. Working hours.
 - s. State's occupancy requirements.
 - t. Installation of temporary facilities and controls.
 - u. Storm Water Pollution Control.
 - v. Procedures for disruptions and shutdowns.
 - w. Construction waste management and recycling.
 - x. Parking availability.
 - y. Office, work, and storage areas.
 - z. Equipment deliveries and priorities.
 - aa. Safety.
 - bb. Security.
 - cc. Progress cleaning.

3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Reinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other Sections and when required for coordination with other construction.

1. 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 State of scheduled meeting dates.
2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.

PROJECT MANAGEMENT AND COORDINATION

- i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
 5. 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.
- D. Project Closeout Conference: State will schedule and conduct a project closeout conference no later than 30 days prior to the scheduled date of Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of State, Project Director, Architect or Engineer, and their consultants; Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of Record Documents.
 - b. Procedures required prior to inspection for Completion and for final inspection for acceptance.
 - c. Procedures for completing and archiving web-based Project software site data files.
 - d. Requirements for preparing operations and maintenance data.
 - e. Submittal of written warranties.
 - f. Requirements for completing sustainable design and commissioning documentation.
 - g. Requirements for delivery of material samples, attic stock, and spare parts.
 - h. Requirements for demonstration and training.
 - i. Preparation of Contractor's punch list.
 - j. Procedures for processing Applications for Payment at Completion and for final payment.
 - k. Submittal procedures.
 - l. State's Occupancy requirements.
 - m. Installation of State's furniture, fixtures, and equipment.
 - n. Removing temporary facilities and controls.

4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: State will conduct progress meetings at weekly intervals.
1. Attendees: In addition to representatives of State, and Architect or Engineer, each contractor, subcontractor, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes 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 Construction Schedule: Review progress since the last meeting.
 - 1) Review schedule for next period.
 - b. Review present and future needs, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Safety.
 - 4) Status of submittals.
 - 5) Status of sustainable design documentation and commissioning.
 - 6) Deliveries.
 - 7) Off-site fabrication.
 - 8) Access.
 - 9) Site use.
 - 10) Temporary facilities and controls.
 - 11) Storm Water Pollution Control.
 - 12) Progress cleaning.
 - 13) Quality Assurance / Quality Control (testing and inspection).
 - 14) Status of correction of deficient items.
 - 15) Field observations.
 - 16) Status of RFIs.
 - 17) Status of Changes in the Work.
 - 18) Payment requests.
 3. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Issue revised Contractor's construction schedule concurrently with the report of each meeting.

END OF SECTION

SECTION 01 31 25

WEB-BASED PROJECT MANAGEMENT SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for the use of State's web-based project management software system for purposes of hosting and managing Project communication and documentation until Acceptance of the Work.

- B. Use of this web-based project management system will not change any contractual responsibilities of the construction team members.

1.2 DEFINITIONS

- A. System: A real time web-based software that shares data, translates data, organizes data, facilitates communication, archives actions, and offers status prompts to identified Users.

- B. Users: Authorized participants of this Project furnished with a unique password and authorized to access the system to view/input/export data. State, Construction Manager (as applicable), Architect or Engineer, and the Contractors are all Users. Other Users may be added as necessary.

- C. Contacts: Entities identified to automatically receive specific transmissions or entities selected to receive specific information sent by the system through to an e-mail address.

- D. Signees: Those individuals identified, by the Contractors, authorized to sign change orders and payment applications via electronic signature. This electronic signature is as contractually binding as an original signature on paper.

1.3 SOFTWARE AND HARDWARE REQUIREMENTS

- A. Each User shall provide and maintain a computer with high-speed internet access and an email address.

- B. License(s) to Use System: State will provide licenses to use the system for this Project.

1.4 USE OF SYSTEM

- A. Use of the system is mandatory for the documentation of the transmittal of all non-oral information, even if the actual transmission of the information is by another means.

1. The State will **NOT** accept faxed, emailed, and/or handwritten documentation of Requests for Information, Sketches, Drawings, and/or Submittals.

- B. Use of the system will be mandatory by the Contractor to send, retrieve, and respond to data.

WEB-BASED PROJECT MANAGEMENT SYSTEM

- C. The State will provide each Project team member with an invitation to web-based project management system, and the supporting documentation of each Project team member's responsibility and how to operate within web-based project management system.
 - 1. The State will administer User accounts for this Project.
- D. Official Records:
 - 1. Documentation and records uploaded and maintained in web-based project management system will be the "Official Records" for the Project and the sole property of the State.

1.5 SUBMITTALS

- A. Submit to the State the contact information, including email address, of the Contractor's key personnel that will administer the system on behalf of the Contractor.

1.6 QUALITY ASSURANCE

- A. A four-hour initial training session in the use of software for this Project will be offered by the State at a location convenient to the Project site. Instructional guides will be provided for the most common tasks.
 - 1. Attendees shall have sufficient computer skills and previous experience with web-based project management software systems.
- B. Web-based support is available at Procore Support Central site (help.Procore.com).
- C. Acceptance via automated system notifications or audit logs extends only to the face value of the submitted documentation and does not constitute validation of the Contractor's submitted information.
- D. Contractor shall be solely responsible for:
 - 1. Training its staff on how to use the Procore beyond the training provided by the State at no additional costs to the contract.
 - 2. Validity of their information placed in Procore.
 - 3. Scanning of documents as necessary for the electronic submittal and attachment of necessary information related to Contractor's supporting documentation.

1.7 SYSTEM DESCRIPTION

- A. The web-based project management system is Procore (www.Procore.com) and is updated monthly.
 - 1. Access into the various applications within Procore will be role based.
 - 2. The following Procore applications shall be made available to the Project team:
 - a. Tasks.
 - b. Documents.
 - c. Workflows.
 - d. Mail.

e. Cost.

B. Web-based project management system includes, at a minimum, the following features:

1. Compilation of Project data, including Contractor, subcontractors, State, State's consultants, and other entities involved in Project. Include names of individuals and contact information.
2. Access control for each entity for each workflow process, to determine entity's digital rights to create, modify, view, and print documents.
3. Document workflow planning, allowing customization of workflow between Project entities.
4. Creation, logging, tracking, and notification for Project communications required in other Specification Sections, including, but not limited to, Requests for Information, Submittals, Additional Detailed Instructions, and Change Orders.
5. Track status of each Project communication in real time, and log time and date when responses are provided.
6. Procedures for handling PDFs or similar file formats, allowing markups by each entity. Provide security features to lock markups against changes once submitted.
7. Processing and tracking of payment applications.
8. Processing and tracking of contract modifications.
9. Creating and distributing meeting minutes.
10. Document management including revision control.
11. Management of construction progress photographs.
12. Mobile device compatibility, including smartphones and tablets.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 RESPONSIBILITIES

A. All documents submitted shall be in PDF file format unless otherwise requested.

B. The following documents shall be managed inside the system:

1. Correspondence, using Mail module.
2. RFIs
3. Submittals
 - a. Placeholders
 - b. Request for Substitutions
4. Financials
 - a. Contract
 - b. Payment Applications
 - c. Change Events and Change Orders
5. Schedules including but not limited to:
 - a. Baseline
 - b. Monthly Progress

- c. Recovery
- d. Short Interval
- 6. Addenda
- 7. Specifications
- 8. Drawings, including ADI.
- 9. Reference Documents
- 10. Daily Reports
- 11. SWPPP
- 12. Inspection Reports (including Special Inspections)
- 13. Punchlists
- 14. Meeting Minutes
- 15. Regulatory Agency's Permits
- 16. Photographs
- 17. Closeout Documentation

3.2 QUALITY CONTROL

- A. Contractor is responsible for its own connectivity to the Internet. The State will not be liable for any delays associated from the usage of Procore including, but not limited to slow response time, down time periods, connectivity problems, or loss of information. Under no circumstances shall the usage of the Procore be grounds for a time extension or cost adjustment to the contract.
- B. The document control system shall be available for Contractor use at all times unless system maintenance (i.e., backups, upgrades, etc.) is being performed. System maintenance will generally be limited to non-core business hours. In the event a Contractor's authorized user cannot access the control system, the Contractor shall notify the State. In the event the control system becomes unavailable during normal business hours for an extended period, the Contractor may issue correspondence requiring immediate attention by the State in hard copy format. The hard copy correspondence must be entered into Procore immediately upon becoming available again. Inability by the Contractor to gain access to the Procore for any reason shall not be grounds for claim.

END OF SECTION

SECTION 01 32 00

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - ENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Startup construction schedule.
 - 2. Construction Schedule.
 - 3. Short Interval Schedule.
 - 4. Recovery Schedule.
 - 5. Construction schedule updating reports.
 - 6. Daily construction reports.
 - 7. Unusual event reports.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the schedule of values for completing an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum.
- C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine the critical path of Project and when activities can be performed.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

CONSTRUCTION PROGRESS DOCUMENTATION

- G. Resource Loading: The allocation of manpower and equipment necessary for completing an activity as scheduled.

1.3 SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. Working electronic copy of schedule file in computer scheduling software native file format.
 - 2. PDF file.
 - 3. Three paper copies of sufficient size to display entire period or schedule, as required.
- B. Startup construction schedule.
 - 1. Submittal of cost-loaded startup construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.
- E. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
 - 1. Activity Report: List of activities sorted by activity number and then early start date, or actual start date if known.
 - 2. Logic Report: List of preceding and succeeding activities for each activity, sorted in ascending order by activity number and then by early start date, or actual start date if known.
 - 3. Total Float Report: List of activities sorted in ascending order of total float.
 - 4. Projected Monthly Payment Requests Report: List of Contractor's monthly planned billings from the Notice to Proceed until Completion of the Work.
- F. Construction Schedule Updating Reports: Submit with Applications for Payment.
- G. Short Interval Schedule: Submit at weekly intervals.
- H. Daily Construction Reports: Submit at weekly intervals.
- I. Site Condition Reports: Submit at time of discovery of differing conditions.
- J. Unusual Event Reports: Submit at time of unusual event.

1.4 QUALITY ASSURANCE

- A. Scheduling Conference: State may conduct conference at Project site to review methods and procedures related to the Contractor's Construction Schedule, including, but not limited to, the following:
1. Review software limitations and content and format for reports.
 2. Verify availability of qualified personnel needed to develop and update schedule.
 3. Discuss constraints, including, but not limited to, phasing work, stages, area separations, interim milestones and beneficial occupancy.
 4. Review delivery dates for State-furnished products.
 5. Review submittal requirements and procedures.
 6. Review time required for review of submittals and resubmittals.
 7. Review requirements for tests and inspections by independent testing and inspecting agencies.
 8. Review time required for Project closeout and State startup procedures, including commissioning activities.
 9. Review list of construction activities to be included in schedule.
 10. Review procedures for updating schedule.

1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
1. Use Microsoft Project or Primavera for current Windows operating system.
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Completion of the Work.
1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
1. Activity Duration: Define activities so no activity is longer than 21 days.
 2. Indicate start and completion dates for the following as applicable:
 - a. Securing of approvals and permits required for performance of the Work.
 - b. Temporary facilities.
 - c. Construction of mock-ups, prototypes and samples.
 - d. State interfaces and furnishing of items, if any.
 - e. Regulatory agency approvals.
 - f. Punch list.
 3. Procurement Activities: Include procurement process activities for the long lead-time items and major items as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 4. Submittal Review Time: Include review and resubmittal times indicated in Section 01 33 00 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
 5. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
 6. Commissioning Time: Include no fewer than 15 days for commissioning.

7. Punch List and Completion: Include not more than 30 days for completion of punch list items and Completion. No activities other than Startup, Testing and/or Commissioning shall be scheduled during this period.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Work by State: Include a separate activity for each portion of the Work performed by State.
 3. Owner-Furnished Products: Include a separate activity for each product.
 4. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Beneficial occupancy before Completion.
 - e. Use-of-premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
 5. 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. Temporary enclosure and space conditioning.
 - c. Permanent space enclosure.
 - d. Completion of mechanical installation.
 - e. Completion of electrical installation.
 - f. Completion.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Beneficial Occupancy, and Completion, and any milestones indicated in Document 00 73 00 "Supplementary Conditions".
- F. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate Completion percentage for each activity.
- G. Distribution of Approved Copies:
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made post in the same locations.

1.6 SHORT INTERVAL SCHEDULE

- A. Short Interval Scheduling (SIS) shall be used throughout onsite construction activity. Interval shall be a 3-week projection and shall include week submitted and two weeks thereafter. It shall contain sufficient detail to evaluate daily milestones and manpower/equipment loading and shall identify/tie into monthly updated Schedule.

1.7 RECOVERY SCHEDULE

- A. When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.
- B. Upon acceptance by the State, incorporate Recovery Schedule into Contractor's Construction Schedule.

1.8 STARTUP CONSTRUCTION SCHEDULE

- A. Gantt-Chart Schedule: Submit startup, horizontal, Gantt-chart-type construction schedule within 10 days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

1.9 GANTT-CHART SCHEDULE REQUIREMENTS

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for the Notice to Proceed.
 - 1. Base schedule on the startup construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

1.10 CPM SCHEDULE REQUIREMENTS

- A. Prepare network diagrams using AON (activity-on-node) format.
- B. CPM Schedule: Prepare Contractor's Construction Schedule using a cost-loaded, time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule, so it can be accepted for use no later than 45 days after date established for the Notice to Proceed.

- a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
2. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule to coordinate with the Contract Time.
- C. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
 1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities.
 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 4. Cost-Loading of CPM Schedule: Assign cost to construction activities on the CPM schedule. Do not assign costs to submittal activities.
 - a. Each activity cost shall reflect an appropriate value subject to approval by State.
 - b. Total cost assigned to activities shall equal the total Contract Sum.
- D. Contract Modifications:
 1. For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.
 2. The State shall have no obligation to consider time extension request unless requirements of Contract Documents are complied with; the State shall not be responsible or liable to Contractor for constructive acceleration due to failure of the State to grant time extensions under the Contract Documents, should Contractor fail to comply with submission requirements and justification requirements of this Contract for time extension requests. Contractor's failure to perform in accordance with Schedule shall not be excused because Contractor has submitted time extension requests, until and unless such requests are approved by the State.
- E. Initial Issue of Schedule: Prepare network diagram(s) from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
 1. Contractor or subcontractor and the Work or activity.
 2. Description of activity.
 3. Main events of activity.
 4. Immediately preceding and succeeding activities.
 5. Early and late start dates.
 6. Early and late finish dates.
 7. Activity duration in workdays.
 8. Total float or slack time.
 9. Dollar value of activity (coordinated with the schedule of values).
 10. Cash flow report calculated by early start, late start and indicating actual progress.
- F. Optional Schedule Reports: In addition to the above reports, the State may request, from month-to-month, any of the following reports:

1. Total float from least to most.
2. Activities by early start.
3. Activities by late start.
4. Activities grouped by subcontractors or selected trades.
5. Activities with scheduled early start dates in a given time frame (i.e. 30- or 60-day outlook).

G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:

1. Identification of activities that have changed.
2. Changes in early and late start dates.
3. Changes in early and late finish dates.
4. Changes in activity durations in workdays.
5. Changes in the critical path.
6. Changes in total float or slack time.
7. Changes in the Contract Time.

1.11 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. Approximate count of personnel at Project site.
3. Equipment at Project site.
4. Material deliveries.
5. High and low temperatures and general weather conditions, including presence of rain or snow.
6. Testing and inspection.
7. Accidents.
8. Meetings and significant decisions.
9. Unusual events.
10. Stoppages, delays, shortages, and losses.
11. Meter readings and similar recordings.
12. Emergency procedures.
13. Orders and requests of authorities having jurisdiction.
14. Services connected and disconnected.
15. Equipment or system tests and startups.

B. Unusual Event Reports: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, responses by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise State in advance when these events are known or predictable.

1. Submit unusual event reports directly to State within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.

1.12 PAYMENTS WITHHELD

A. Progress Payments may be withheld in whole or in part should Contractor fail to comply with requirements of this Section.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 32 33

PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Preconstruction photographs.
2. Concealed Work photographs.
3. Periodic construction photographs.
4. Final Completion construction photographs.
5. Preconstruction video recordings.
6. Periodic construction video recordings.
7. Construction webcam.

1.2 SUBMITTALS

A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each **photograph and video recording**. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.

B. Digital Photographs: Submit image files within seven days of taking photographs.

1. Submit photos **by uploading to web-based Project management software site**. Include copy of key plan indicating each photograph's location and direction.
2. Identification: Provide the following information with each image description **in web-based Project management software site**:
 - a. Name and number of Project.
 - b. Date photograph was taken.
 - c. Description of location, vantage point, and direction.
 - d. Unique sequential identifier keyed to accompanying key plan.

C. Video Recordings: Submit video recordings within seven days of recording.

1. Submit video recordings **by uploading to web-based Project management software site**. Include copy of key plan indicating each video's location and direction.
2. Identification: With each submittal, provide the following information **on web-based Project management software site**:
 - a. Name and number of Project.
 - b. Date video recording was recorded.
 - c. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - d. Unique sequential identifier keyed to accompanying key plan.

1.3 FORMATS AND MEDIA

- A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels, and at an image resolution of not less than 3200 by 2400 pixels. Use flash in low light levels or backlit conditions.
- B. Digital Video Recordings: Provide high-resolution, digital video in MPEG format, produced by a digital camera with minimum sensor resolution of 12 megapixels and capable of recording in full high-definition mode. Provide supplemental lighting in low light levels or backlit conditions.
- C. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- D. Metadata: Record accurate date and time and GPS location data from camera.
- E. File Names: Name media files with date, Project number, **Project area (including Building #)**, and sequential numbering suffix.

1.4 CONSTRUCTION PHOTOGRAPHS

- A. Photographer:
 - 1. Engage **Contractor's Project staff** to take construction photographs.
- B. General: Take photographs with maximum depth of field and in focus.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Preconstruction Photographs: Before commencement of the Work, and in the presence of the State's Representative, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by State.
 - 1. Take **20** photographs to show existing conditions adjacent to property before starting the Work.
 - 2. Take **20** photographs of existing buildings either on or adjoining property, to accurately record physical conditions at start of construction.
 - 3. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- D. Concealed Work Photographs: Before proceeding with installing work that will conceal other work, take photographs sufficient in number, with annotated descriptions, to record nature and location of concealed Work, including, but not limited to, the following:
 - 1. Underground utilities.
 - 2. Underslab services.
 - 3. Piping.
 - 4. Electrical conduit.
 - 5. Waterproofing and weather-resistant barriers.
 - 6. Fire rated wall and/or ceiling penetrations.
- E. Periodic Construction Photographs: Take at least **20** photographs **weekly**. Following suggestions by State, select vantage points to show status of construction and progress since last photographs were taken.

- a. Interior Work, through date of Completion.
- F. Final Completion Construction Photographs: Take **100** photographs after date of Completion for submission as Project Record Documents. State will inform photographer of desired vantage points.

1.5 CONSTRUCTION VIDEO RECORDINGS

- A. Preconstruction Video Recording: Before starting **demolition and/or removal of existing equipment**, and in the presence of the State's Representative, record video recording of Project site and surrounding properties from different vantage points, as directed by State.
 - 1. Show existing conditions adjacent to Project site before starting the Work.
 - 2. Show existing buildings either on or adjoining Project site to accurately record physical conditions at the start of **demolition and/or removal of existing equipment**.
 - 3. Show protection efforts by Contractor.
- B. Periodic Construction Video Recordings: Record video recording **monthly**. Select vantage points to show status of construction and progress since last video recordings were recorded. Minimum recording time shall be **30** minutes.
 - a. Commencement of the Work, through completion of construction.
 - 2. Timer: Provide timer to automatically start and stop video recorder, so recording occurs only during **construction work** hours.
 - 3. Vantage Points: Following suggestions by State and Contractor, photographer shall select vantage points.

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

1.2 DEFINITIONS

- ###### A.
- Submittals: Written and graphic information and physical samples that require State's responsive action. Submittals are those submittals indicated in individual Specification Sections. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL SCHEDULE

- ###### A.
- Submittal Schedule: Submit a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by State and additional time for handling and reviewing submittals required by those corrections.

1. Schedule submissions during the first 90 days after a date established for the Notice to Proceed and at least 21 days before dates reviewed submittals will be needed and within the time periods specified below.
 - a. Items needed in initial stages of Work or requiring long lead-time for ordering: 30 days.
 - b. Major electrical, mechanical and equipment items other than those covered by Deferred Approval submittals: 60 days.
2. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
3. Initial Submittal Schedule: Submit within 10 days of date established for the Notice to Proceed. Include submittals required during the first 90 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
4. Final Submittal Schedule: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule as required to reflect changes in current status and timing for submittals.
5. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.

SUBMITTAL PROCEDURES

- b. Specification Section number and title.
- c. Description of the Work covered.
- d. Scheduled date for State's final release or approval.
- e. Scheduled dates for purchasing.
- f. Scheduled dates for installation.

1.4 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

- 1. Project name.
- 2. Date.
- 3. Name of Contractor.
- 4. Name of firm or entity that prepared submittal.
- 5. Unique submittal number, including revision identifier.
- 6. Submittal purpose and description.
- 7. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
- 8. Drawing number and detail references, as appropriate.
- 9. Indication of full or partial submittal.
- 10. Location(s) where product is to be installed, as appropriate.
- 11. Other necessary identification.
- 12. Remarks.
- 13. Signature of transmitter.

B. Options: Identify options requiring selection by State.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by State on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

E. Submittals Utilizing Web-Based Project Software: Prepare submittals as PDF files or other format indicated by Project management software.

1.5 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

- 1. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project management software website. Enter required data in web-based software site to fully identify submittal.
- 2. Paper: Prepare submittals in paper form and deliver to State.

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.

SUBMITTAL PROCEDURES

2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Coordinate transmittal of submittals for related parts of the Work specified in different Sections, so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. State reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on State'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 21 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. State 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 21 days for review of each resubmittal.
- D. 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 with approval notation from State's action stamp.
- E. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from State's action stamp.

1.6 SUBMITTAL REQUIREMENTS

- A. 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 published data are unsuitable 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 catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams that show factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.

SUBMITTAL PROCEDURES

- d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
- 5. Submit Product Data before Shop Drawings, and before or concurrently with Samples.
- B. 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. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
- C. Samples: Submit physical samples for review of type, color, pattern, and texture for a check of these characteristics with other materials.
 - 1. Transmit Samples that contain multiple, related components, such as accessories together in one submittal package.
 - 2. Where size of Samples is not specified, Samples should be of sufficient size and quantity to clearly illustrate functional characteristics of product or material, with integrally related parts and attachment devices.
 - 3. Identification: Permanently attach label on unexposed side of Samples that includes the following:
 - a. Project name and submittal number.
 - b. Generic description of Sample.
 - c. Product name and name of manufacturer.
 - d. Sample source.
 - e. Number and title of applicable Specification Section.
 - f. Specification paragraph number and generic name of each item.
 - 4. Web-Based Project Management Software: Prepare submittals to accompany Samples in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
 - 5. Paper Transmittal: Include paper transmittal to accompany Samples, including complete submittal information indicated.
 - 6. 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.
 - 7. 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. State will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record Sample.

SUBMITTAL PROCEDURES

- 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.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- G. Certificates:
1. Certificates and Certifications Submittals: Submit a 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. Provide a notarized signature where indicated.
 2. Installer Certificates: Submit 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.
 3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead, certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
 4. Material Certificates: Submit written statements on manufacturer's letterhead, certifying that material complies with requirements in the Contract Documents.
 5. Product Certificates: Submit written statements on manufacturer's letterhead, certifying that product complies with requirements in the Contract Documents.
 6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of AWS B2.1/B2.1M on AWS forms. Include names of firms and personnel certified.
- H. Test and Research Reports:
1. Compatibility Test Reports: Submit 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 substrate preparation and primers required.
 2. Field Test Reports: Submit written reports 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.

SUBMITTAL PROCEDURES

3. Material Test Reports: Submit 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.
4. Preconstruction Test Reports: Submit 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.
5. Product Test Reports: Submit written reports indicating that 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.
6. Research Reports: Submit 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:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.

1.7 DELEGATED-DESIGN SERVICES

- 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 insufficient to perform services or certification required, submit a written request for additional information to State.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file and three paper copies of certificate, signed and sealed by the responsible design professional licensed to practice in the State of California, 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.

1.8 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: 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 State.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with. Include 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.

SUBMITTAL PROCEDURES

1. State will not review submittals received from Contractor that do not have Contractor's review and approval.

1.9 STATE'S REVIEW

- A. Submittals: State will review each submittal, indicate corrections or revisions required, and return.

1. PDF Submittals: State will indicate, via markup on each submittal, the appropriate action, as follows:

- a. No Exception Taken: Where the submittal is marked "No Exception Taken," the Work covered by the submittal may proceed, provided it complies with the Contract Documents. Final acceptance will depend on that compliance.
- b. Exception, See Comments: Where the submittal is marked "Exception, See Comments," the Work covered by the submittal may proceed, provided it complies both with State's notations and corrections on the submittal and the Contract Documents. Final acceptance will depend on that compliance.
- c. Revise and Resubmit: Where the submittal is marked "Revise and Resubmit," do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity for the product submitted. Revise or prepare a new submittal according to State's notations and corrections.
- d. Rejected: Where the submittal is marked "Rejected," do not proceed with the Work covered by the submittal. Prepare a new submittal for a product that complies with the Contract Documents.

2. Submittals by Web-Based Project Management Software: State will indicate, on Project management software website, the appropriate action.

- a. Actions taken by indication on Project management software website have the following meanings:

- 1) No Exception Taken: Where the submittal is marked "No Exception Taken," the Work covered by the submittal may proceed, provided it complies with the Contract Documents. Final acceptance will depend on that compliance.
- 2) Exception, See Comments: Where the submittal is marked "Exception, See Comments," the Work covered by the submittal may proceed, provided it complies both with State's notations and corrections on the submittal and the Contract Documents. Final acceptance will depend on that compliance.
- 3) Revise and Resubmit: Where the submittal is marked "Revise and Resubmit," do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity for the product submitted. Revise or prepare a new submittal according to State's notations and corrections.
- 4) Rejected: Where the submittal is marked "Rejected," do not proceed with the Work covered by the submittal. Prepare a new submittal for a product that complies with the Contract Documents.

- B. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from State.
- C. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- D. State will return without review submittals received from sources other than Contractor.

SUBMITTAL PROCEDURES

- E. Submittals not required by the Contract Documents will be returned by State without action.

END OF SECTION

SECTION 01 35 53

SECURITY PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Special requirements for California Department of State Hospitals project applicable to the Patton State Hospital; hereinafter referred to as Site. Security regulations include, but are not limited to, the given provisions in this Section.

1.2 DEFINITIONS

- A. Site Representative: An employee of the California Department of State Hospitals who is assigned to the Project to maintain required security procedures on the Project Work Site.
- B. Construction Personnel: Any individual person, employed directly or indirectly by the Contractor to perform work or provide services in connection with the Work of this Contract.

1.3 SUBMITTALS

- A. Submit a list of Construction Personnel who will be working on Project site. Submit as early as possible to avoid scheduling delays and no later than 10 calendar days after Notice to Proceed.
 1. Listing shall include the following information:
 - a. Full name, including middle name.
 - b. Name of issuing state and number of driver's license or non-driver's identifications card.
 - c. Social Security number.
 - d. Date of birth.
- B. Submit layout plan showing proposed location of offices, employee parking, material storage, shop facilities, and other major work areas to State for approval prior to site mobilization.

1.4 SECURITY

- A. General: Site has patients which occupy housing in same general area as Contractor's work area.
- B. Cooperation: Cooperate with the Site authorities, observe and comply with all regulations presently in force on the Site, and do not cause interference with operations of existing or completed areas of the Site.
- C. State of Emergency: If State deems it necessary to declare a State of Emergency, work may be curtailed or terminated for duration of said emergency. Requests for additional compensation for occurrences of State of Emergency will not be considered.

SECURITY PROCEDURES

- D. Personnel: Construction Personnel may be required to submit to fingerprinting. Contractor will be responsible for ensuring that its personnel read and comply with Site regulations.
- E. No firearms, narcotics, drugs, intoxicants, or other restricted materials shall be allowed on Site.
- F. Contractor Identification: Develop a company identification card for Construction Personnel assigned to the Site. I.D. card shall list Contractor's name and address, employee's name, date of issue and shall be signed by authorized Contractor's representative, and individual personnel. I.D. card shall contain affixed minimum 1" x 1-1/2" full face photograph of personnel. Construction Personnel will not be permitted access to Site without this I.D. card.
- G. Occupied Facilities: Occupied facilities are those facilities, existing or new, which have employee or patient occupants. The following restrictions apply to all occupied areas.
 - 1. Construction Personnel will not be permitted into any occupied area without being escorted at all times by a Site Representative.
 - 2. Personnel going into occupied areas must have both Contractor identification and valid California identification.
 - 3. Work conducted in occupied portions of Site must be carefully coordinated with Site Representative at minimum 48 hours in advance to allow scheduling of escorts.
 - 4. Restrictions may be placed on quantity and type of tools and materials taken by construction workers into occupied areas. Workers will be required to account for tools and materials taken into occupied areas every time workers with escorts depart for breaks, meals, or end of workday.
 - 5. Occupied areas operate on a round-the-clock basis. Conduct operations so as not to interrupt or disrupt the functioning of occupants or Central Plant. All work which will affect the operation of the Site must be scheduled 48 hours in advance and be accepted by State.
- H. Vehicle Security:
 - 1. All persons shall remove ignition keys from their vehicles when they are out of vehicle. Unattended vehicles shall be locked at all times.
 - 2. Contractor's equipment shall be rendered temporarily inoperative when not in use, by locking and/or other means.
- I. Vehicles, equipment, and supplies entering State property may be given a cursory inspection by State personnel each time they enter or leave the Site. Vehicles, equipment, and supplies may also be thoroughly searched when State staff determines this as a necessity.
- J. Security Guard Agencies: Should Contractor elect to use a private security firm on construction site, security firm and its on-site personnel shall be subject to acceptance of State.
- K. Deliveries: When scheduling delivery of materials or equipment to site other than during Normal Work Hours, alert State one working day ahead of delivery so that arrangements can be made to provide entrance to Site. Contractor must have a representative present to receive deliveries.

1.5 USE OF PROPERTY

- A. Confine Project operations to areas shown on Project Drawings. State will coordinate use of property areas with Contractor to ascertain that Contractor's needs are fulfilled to fullest extent possible within project constraints and Site regulations.
 - 1. Access to Site shall be as directed by State.

SECURITY PROCEDURES

- B. Clear access for emergency vehicles shall be maintained at all times.
- C. No open burning or trash dumping will be allowed.
- D. Keep construction access under custodial control and always locked to maintain Site security. Provide construction access keys to the State as directed.
- E. Utilities: Utilities shall not be interrupted except with approval of State. Provide 48 hour written notice prior to interruptions. Schedule interruptions to minimize duration and disruption to existing operations.
- F. Parking area will be provided by State for general employee parking. Cars parked in this area may not be searched on a daily basis but will be subject to search as required by State.

1.6 MATERIALS AND EQUIPMENT

- A. Tools shall be stored at close of working hours and located in a place of security provided by Contractor, as accepted and directed by State.
- B. Use of explosive powered tools and other explosives shall be by special arrangement with State.
- C. Report to State, immediately on discovery, any loss of tools, equipment, or materials stored or used on Site. State will not be responsible for losses due to theft or otherwise.
- D. Custodial control shall be maintained for volatiles, quick evaporating liquids, alcoholic base thinners, cutting instruments and tools, files, ropes and ladders. Custodial regulations may require alteration as job progresses as directed by State.
- E. Keep materials and equipment under custodial control and always locked to maintain Site security. Provide keys to the State as directed.

1.7 SAFETY PRECAUTIONS

- A. Materials Hazardous to Patients: Prevent access by patients to hazardous materials, such as pieces of pipe, conduit, reinforcing bars, wire, cords, rope, bricks, broken concrete, or other material. Remove hazardous spilled liquid materials immediately.
- B. Oxygen and acetylene cylinders shall be protected by fastening to walls or rigid posts, with screw caps replaced at end of each day.

END OF SECTION

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are 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-assurance and quality-control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and quality-control services required by State, or authorities having jurisdiction are not limited by provisions of this Section.

1.2 DEFINITIONS

- A. Field Quality-Control Tests and Inspections: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- B. 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, assembly, and similar operations.
 - 1. Use of trade-specific terminology in referring to a Work result does not require that certain construction activities specified apply exclusively to specific trade(s).
- C. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria. Unless otherwise indicated, copies of reports of tests or inspections performed for other than the Project do not meet this definition.
- D. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- E. Source Quality-Control Tests and Inspections: Tests and inspections that are performed at the source (e.g., plant, mill, factory, or shop).

QUALITY REQUIREMENTS

- F. Testing Agency: An entity engaged to perform specific tests, inspections, or both. The term "testing laboratory" shall have the same meaning as the term "testing agency."
- G. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work, to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- H. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work, to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by State.

1.3 DELEGATED-DESIGN SERVICES

- 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 State.
- B. Delegated-Design Services Statement: Submit a statement signed and sealed by the responsible design professional registered to practice in the State of California, 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.

1.4 CONFLICTING REQUIREMENTS

- A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements is specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, inform the State regarding the conflict. Use the requirement(s) that is/are more stringent and/or of higher quality and/or higher quantity.

1.5 SUBMITTALS

- A. Reports: Prepare and submit certified written reports, products test reports, and documents as required and/or specified.
- B. Permits, Licenses, and Certificates: For State's record, 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.

1.6 REPORTS AND DOCUMENTS

- A. Manufacturer's Technical Representative's or Factory-Authorized Service Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

QUALITY REQUIREMENTS

1. Name, address, telephone number, and email address of technical 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.

1.7 QUALITY ASSURANCE

- A. Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. 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, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- C. 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.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, 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.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in the State of California or jurisdiction where Project is located, and who has minimum of five years of experience in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that is similar in material, design, and extent to those indicated for this Project.
- F. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- G. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect, demonstrate, repair, and perform service on installations of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- H. Mockups / Field Samples: Before installing portions of the Work requiring mockups / field samples, build mockups / field samples for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 1. Build mockups / field samples of size indicated.
 2. Build mockups / field samples in location indicated or, if not indicated, as directed by State.
 3. Notify State seven days in advance of dates and times when mockups / field samples will be constructed.

QUALITY REQUIREMENTS

4. Employ supervisory personnel who will oversee mockup / field sample construction. Employ workers who will be employed to perform same tasks during the construction at Project.
5. Demonstrate the proposed range of aesthetic effects and workmanship.
6. Obtain State's acceptance of mockups / field samples before starting corresponding Work, fabrication, or construction.

a. Allow 21 days for initial review and each re-review of each mockup / field sample.

7. Promptly correct unsatisfactory conditions noted by State's preliminary review, to the satisfaction of the State, before completion of final mockup / field sample.
8. Acceptance of mockups / field samples by the State does not constitute approval of deviations from the Contract Documents contained in mockups / field samples unless State specifically accepts such deviations in writing.
9. Maintain mockups / field samples during construction in an undisturbed condition as a standard for judging the completed Work.
10. Demolish and remove mockups / field samples when directed unless otherwise indicated.

1.8 QUALITY CONTROL

A. State Responsibilities: Where quality-control services are indicated as State's responsibility, State will engage a qualified testing agency to perform these services.

1. Costs for retesting and reinspecting 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.
2. Tests and inspections shall be performed by State's testing laboratory in conformance with California Code of Regulations, Title 24 as noted in individual specifications sections.

B. Contractor Responsibilities: Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.

1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
2. Engage a qualified testing agency to perform quality-control services.
 - a. Contractor shall not employ same entity engaged by State, unless agreed to in writing by State.
 - b. Testing, Adjusting, and Balancing of Systems: These services shall be provided by approved testing organization in conformance with requirements for services specified in individual sections pertaining to each system.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
4. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. 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 as specified in Section 01 33 00 "Submittal Procedures."

QUALITY REQUIREMENTS

- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. Contractor's Associated Requirements and Services: Cooperate with agencies and representatives 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 inspection. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 6. Security and protection for samples and for testing and inspection equipment at Project site.
- 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 inspection.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- G. The State shall have the right to reject materials and workmanship which are defective or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the State. If Contractor does not correct such rejected work within a reasonable time, fixed by a written notice, the State may correct same and charge the expenses to Contractor.
- H. Should it be considered necessary or advisable by the State at any time before Acceptance of the Work to make examination of work already completed by removing or tearing out same, Contractor shall, on request, promptly furnish necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of Contractor or subcontractor, Contractor shall defray all expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet requirements of the Contract, additional cost of labor and material necessarily involved in the examination and replacement will be allowed to the Contractor.

1.9 SPECIAL INSPECTIONS AND TESTS

- A. Special Inspections and Tests: State will engage a qualified testing agency and/or special inspector to conduct special inspections and tests required by authorities having jurisdiction as the responsibility of State.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 GENERAL

- A. Notify State's Inspector 48 hours in advance of operations to allow for laboratory assignment of personnel and scheduling of tests. When tests or inspections cannot be performed after such notice, reimburse the State for laboratory personnel and travel expenses incurred due to Contractor's negligence.
- B. When additional testing services are needed for Contractor's convenience, employ and pay for services of separate, equally qualified independent testing laboratory; or arrange with State's laboratory and pay for additional samples and tests required for Contractor's convenience.
- C. Prepare each system for testing and balancing. Cooperate with testing agency and provide access to equipment and systems. Operate systems at designated times, and under conditions required for proper testing, adjusting, and balancing.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, sample-taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 73 00 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, fire safety, and security and protection facilities.

1.2 USE CHARGES

- A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, State, testing agencies, and authorities having jurisdiction.
- B. Sewer, Drainage, Water, Gas, Telecommunication and Electric Power Service: Pay connection and service use charges for usage by all entities for construction operations.

1.3 SUBMITTALS

- A. State Fire Marshal (SFM) approval of Site Utilization Plan may be required. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel. Show compliance with requirements of authorities having jurisdiction.
- B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.
- C. Fire-Safety Program and Site Safety Plan: Show compliance with requirements of NFPA 241, California Fire Code Chapter 33, and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program. Include the following in Site Safety Plan:
 - 1. Name and contact information of site safety director.
 - 2. Documentation of the training of the site safety director and fire watch personnel.
 - 3. Procedures for reporting emergencies.
 - 4. Fire department vehicle access routes.
 - 5. Location of fire protection equipment, including portable fire extinguishers, standpipes, fire department connections and fire hydrants.
 - 6. Smoking and cooking policies, designated areas to be used where approved, and signage locations.
 - 7. Location and safety considerations for temporary heating equipment.
 - 8. Hot work permit plan.
 - 9. Plans for control of combustible waste material.
 - 10. Locations and methods for storage and use of flammable and combustible liquids and other hazardous materials.

TEMPORARY FACILITIES AND CONTROLS

11. Provisions for site security.
 12. Changes that affect this plan.
 13. Other site-specific information required by the authorities having jurisdiction.
- D. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. 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 requirements for 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.
- E. Dust-, Odor- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Include the following:
1. Locations of dust-control partitions at each phase of work.
 2. HVAC system isolation schematic drawing.
 3. Location of proposed air-filtration system discharge.
 4. Waste-handling procedures.
 5. Other dust-control measures.
 6. Other odor-control measures.
- F. Noise and Vibration Control Plan: Identify construction activities that may impact the occupancy and use of existing spaces within the building or adjacent existing buildings, whether occupied by others, or occupied by the State. Include the following:
1. Methods used to meet the goals and requirements of the State.
 2. Concrete cutting method(s) to be used.
 3. Location of construction devices on the site.
 4. Show compliance with the use and maintenance of quieted construction devices for the duration of the Project.
 5. Indicate activities that may disturb building occupants and that are planned to be performed during non-standard working hours as coordinated with the State.
 6. Indicate locations of sensitive areas or other areas requiring special attention as identified by State. Indicate means for complying with State's requirements.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
1. Construct and maintain temporary electrical facilities in accordance with California Electrical Code, California Public Utilities Commission "Rules for Overhead Line Construction" (General Order No. 95), and requirements of utility company providing service. Materials, devices, and equipment used for these facilities shall be in good and safe condition but need not be new.

- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Temporary Facilities: Obtain required certifications and permits from authorities having jurisdiction. Comply with authorities having jurisdiction requirements for temporary facilities.
- D. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines and California Building Code.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before State's acceptance, regardless of previously assigned responsibilities.
- B. Construction Equipment: Erect, equip, operate, and maintain construction equipment in strict accordance with applicable statutes, laws, ordinances, rules, and regulations of authorities having jurisdiction.
 - 1. Provide and maintain scaffolding, staging, runways, and similar equipment, as needed.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

- A. Field Offices for the State Use: Not required.
- B. Field Office for Contractor use: Contractor may provide at their expense field office facilities for Contractor's use as desired.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

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. See other Sections for disposition of salvaged materials that are designated as State'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 01 10 00 "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.

3.3 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, State, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Water Service: Connect to State's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to State. At Completion of the Work, restore these facilities to condition existing before initial use.
 - 1. Pay for all water used during time of this Contract. Arrange with water company for transfer of water payment responsibility.
- E. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash 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. Maintain toilets in a neat, clean, and orderly manner, and refill all consumables minimum once a week..
 - 2. Provide temporary dehumidification systems when required to reduce ambient and
- F. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
 - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - b. Maintain negative air pressure within work area, using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
 - 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 - 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

TEMPORARY FACILITIES AND CONTROLS

- G. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
- H. Lighting: Provide temporary lighting that provides adequate illumination for construction operations, observations, inspections, and traffic conditions or as designated by the State.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.4 SUPPORT FACILITIES INSTALLATION

- A. Comply with the following:
 - 1. Utilize designated area within existing building for temporary facilities.
 - a. Spaces used by Contractor and subcontractors for materials storage and/or staging within building, shall be protected and restored before completion of Contract to prior existing or better than prior existing condition.
 - 2. Maintain support facilities until State schedules final inspection. Remove before Completion.
- B. 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.
- C. Parking: Personnel involved in construction operations shall comply with parking and traffic regulations for use of streets, as enforced by authorities having jurisdiction, except for other arrangements as may be agreed to between Contractor and authorities having jurisdiction.
 - 1. Provide temporary parking areas for construction personnel.
 - 2. Use designated areas of State's existing parking areas for construction personnel.
- D. Storage and Staging: Provide temporary offsite area for storage and staging needs. State will allocate available onsite storage and work areas to Contractor, subject to change as may be necessary by job progress, such as site development or other intervening work.
- E. 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.
- F. Project Signs: Not required.
- G. Other Signs or Advertising: Not permitted, except that Contractor's name may be placed on Contractor's field office.
- H. Lifts and Hoists: Provide and maintain hoists and construction elevators, including elevators for hoisting workmen; complete with operators, power and signals, as required per Safety Orders of State of California Division of Industrial Safety.

TEMPORARY FACILITIES AND CONTROLS

- I. Temporary Use of Elevator: Use of elevators is not permitted.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Security: Secure building and grounds at Project site from vandalism or theft, during entire time of Contract.
- C. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Section 01 10 00 "Summary."
- D. Tree and Plant Protection: Comply with requirements specified in Section 01 56 39 "Temporary Tree and Plant Protection."
- E. 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.
 - 1. Irrigate trees, shrubs, and lawn areas which are to remain within work area as directed by State. Construct suitable earth berms around such trees and shrubs as necessary to hold irrigation.
 - 2. Remove and replace trees, shrubs, and lawn areas indicated to remain that are damaged during construction operations or are more than 50 percent dead or in an unhealthy condition before the end of the guarantee period that State determines are incapable of restoring to normal growth pattern.
- F. Existing Landscaped Areas: Return the grounds back to the State in condition equal to or better than existed upon commencement of Work.
- G. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.
 - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to State.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide signage directing occupants to temporary egress.
- J. Covered Walkway: Erect protective, covered walkway for passage of individuals through or adjacent to Project site. Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction and requirements indicated on Drawings.

TEMPORARY FACILITIES AND CONTROLS

1. Provide overhead decking, protective enclosure walls, handrails, barricades, warning signs, exit signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
 2. Paint and maintain appearance of walkway for duration of the Work.
- K. Temporary Enclosures: Provide temporary enclosures including insulation 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.
- L. 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.

3.6 MOISTURE AND MOLD CONTROL

- A. Moisture and Mold Protection: Protect stored materials and installed Work per manufacturer's recommended practices.
- 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 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 State.
- c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within 48 hours.

3.7 OPERATION, TERMINATION, AND REMOVAL

- A. Maintenance: Maintain facilities in good operating condition until removal.
 - 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 field office toilets and sanitary facilities in a neat, clean, and orderly manner, and refill all consumables minimum once a week.
- B. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Completion.
- C. 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 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 property of Contractor. State reserves right to take possession of Project identification signs.

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and substitutions.

1.2 DEFINITIONS

- A. Products: Items obtained 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. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications; submit a substitution request, if applicable.
- D. Basis-of-Design Product Specification Submittal: An action submittal complying with requirements in Section 01 33 00 "Submittal Procedures."
- E. Substitution: Refer to Section 01 25 00 "Substitution Procedures" for definition and limitations on substitutions.

1.3 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

PRODUCT REQUIREMENTS

- B. Identification of Products: Except for required labels and operating data, do not attach or imprint manufacturer or product names or trademarks on exposed surfaces of products or equipment that will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on a concealed surface, or, where required for observation following installation, on a visually accessible surface that is not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service- or power-operated equipment. Locate on a visually accessible but inconspicuous surface. Include information essential for operation, including the following:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.
 - 3. See individual identification Sections in Divisions 21, 22, 23, and 26 for additional equipment identification requirements.

1.4 COORDINATION

- A. Modify or adjust affected work as necessary to integrate work of approved comparable products and approved substitutions.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. 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 determine compliance with the Contract Documents and that products are undamaged and properly protected.
- C. Storage:
 - 1. Provide a secure location and enclosure at Project site for storage of materials and equipment.
 - 2. Store products to allow for inspection and measurement of quantity or counting of units.
 - 3. Store materials in a manner that will not endanger Project structure.
 - 4. Store products that are subject to damage by the elements under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation and with adequate protection from wind.

PRODUCT REQUIREMENTS

5. Store loose granular materials on solid surfaces in well-drained area; prevent mixing with foreign matter.
6. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
7. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
8. Protect stored products from damage and liquids from freezing.

1.6 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.
 1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the State or endorsed by manufacturer to State.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for State and issued in the name of the State or endorsed by manufacturer to State.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Specified Form: When specified forms are included in the Project Manual, prepare a written document, using indicated form properly executed.
 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 01 77 00 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, 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. Components required to be supplied in quantity within individual Specification Sections shall be the same and shall be interchangeable.
 3. 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.
 4. State reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
 5. Where products are accompanied by the term "as selected," State will make selection.

PRODUCT REQUIREMENTS

6. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
7. Or Equal: For products specified by name and accompanied by the term "or equal," "or approved equal," comply with requirements in Section 01 25 00 "Substitution Procedures" to obtain approval for use of an unnamed product.
 - a. Submit additional documentation required by State in order to establish equivalency of proposed products. Unless otherwise indicated, evaluation of "or equal" product status is by the State, whose determination is final.
 - b. Where the words "or equal" are used following trade names, patented products, or proprietary products or methods, they shall be deemed to read "or equal in quality, design, utility and suitability"; as solely determined by the State. Where such trade names, products, or methods are without the use of the words "or equal", they shall be deemed to be followed by the words "or equal in quality, design, utility and suitability" as solely determined by the State.

B. Product Selection Procedures:

1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed or an unnamed product that complies with requirements.
 - a. Non-limited list of products is indicated by the phrase "Subject to compliance with requirements, available products that may be incorporated in the Work include, but are not limited to, the following."
 - b. Provision of an unnamed product is considered a substitution.
4. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed or a product by an unnamed manufacturer that complies with requirements.
 - a. Non-limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following."
 - b. Provision of products of an unnamed manufacturer is considered a substitution.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications may additionally indicate sizes, profiles, dimensions, and other characteristics that are based on the product named.
 - a. For approval of products by unnamed manufacturers, comply with requirements in Section 01 25 00 "Substitution Procedures" for substitutions.

PRODUCT REQUIREMENTS

- C. Visual Selection Specification: Where Specifications include the phrase "as selected by State from manufacturer's full range" or a similar phrase, select a product that complies with requirements. State will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.
- D. Sustainable Product Selection: Where Specifications require product to meet sustainable product characteristics, select products complying with indicated requirements. Comply with requirements in Division 01 sustainability requirements Section and individual Specification Sections.
 - 1. Select products for which sustainable design documentation submittals are available from manufacturer.

END OF SECTION

SECTION 01 73 00

EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Installation of the Work.
 - 3. Cutting and patching.
 - 4. Coordination of State's portion of the Work.
 - 5. Progress cleaning.
 - 6. Starting and adjusting.
 - 7. Protection and repair of installed construction.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.3 PREINSTALLATION MEETINGS

- A. Cutting and Patching Conference: Conduct conference at Project site.
 - 1. Prior to commencing work requiring cutting and patching, review extent of cutting and patching anticipated and examine procedures for ensuring satisfactory result from cutting and patching work. Inform State of scheduled meeting.
 - 2. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.4 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural and Other Construction Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify State of locations and details of cutting and await directions from State before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection. Do not cut and patch other

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construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

2. Patching shall achieve security, strength, and weather protection, and shall preserve continuity of existing fire ratings.
3. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in State's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner. Patching shall successfully duplicate undisturbed adjacent finishes, colors, textures, and profiles. Where there is a dispute as to whether duplication is successful or has been achieved to a reasonable degree, the State's judgment shall be final.

- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with requirements specified in other Sections.
 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to State for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.
- C. 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.
 1. Use cleaning products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: 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 all underground utilities, and other construction affecting the Work.

- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. 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.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. 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 State in accordance with requirements in Section 01 31 00 "Project Management and Coordination."

3.3 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 and existing conditions. If discrepancies are discovered, notify State promptly.
- B. Engage a land surveyor experienced in laying out the Work, using the following accepted surveying practices:
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim 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.

3.4 INSTALLATION

- A. 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.
- B. Comply with the manufacturer's written instructions and recommendations for installing products in applications indicated.

- C. Install products at the time and under conditions that will ensure satisfactory results as judged by State. Maintain conditions required for product performance until 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 of type expected for Project.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- 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 portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by State.
 - 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, as judged by State. Fit exposed connections together to form hairline joints.
- I. Repair or remove and replace damaged, defective, or nonconforming Work.
 - 1. Comply with Section 01 77 00 "Closeout Procedures" for repairing or removing and replacing defective Work.

3.5 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of Work to be cut.

- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements in Section 01 10 00 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by State. Provide materials and comply with installation requirements specified in other Sections, where applicable.
- I. Paint over complete surface plane, unless otherwise indicated. Over patched wall or ceiling surfaces, paint to nearest cutoff line for entire surface, such as intersection with adjacent wall or ceiling, beam, pilasters, or to nearest opening frame, unless otherwise indicated. Painted surfaces shall not present a spotty, touched-up appearance.
- J. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.6 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. 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 waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
- 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.
- 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.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.

3.7 PROTECTION AND REPAIR OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Completion.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- D. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the construction waste management and disposal.
- B. Waste Management Objective for the Project:
 - 1. Project shall minimize the generation of construction and demolition waste at the site.
 - 2. Waste disposal in landfills shall be minimized.

1.2 DEFINITIONS

- A. Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.
- C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition and construction waste becomes property of the Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to State that may be uncovered during demolition remain the property of State.
 - 1. Carefully salvage in a manner to prevent damage and promptly return to State.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

1.4 SUBMITTALS

- A. Construction Waste Estimate: Within 14 calendar days after Start Date of the Work, or prior to any waste removal, whichever occurs sooner, submit construction waste estimate, using the Form 01 74 19.01 "Construction Waste Estimate". Include the following information:
 - 1. Estimate of total job site waste to be generated, including material types and quantities.
 - 2. Estimate of percentages of waste categories to landfill, to be reused, and to be recycled.
- B. Waste Management Report: Upon completion of Work, including final cleanup, provide a final waste management report containing the information required in Form 01 74 19.02 "Waste Management Report". Include the following information:
 - 1. Total quantity of each waste material generated; and the date(s) removed from the project site.
 - 2. Percentages of waste categories to landfill, to be reused, and to be recycled.
 - 3. Identity of the landfill / receiving facility, handling costs, transport costs, tipping fees paid at the landfill, and total landfill costs. Attach copies of manifests, weight tickets, receipts, and invoices.
 - 4. For each material reused or recycled from the Project, include the total costs of handling and transportation, and income. Attach manifests, weight tickets, receipts, and/or invoices.
- C. Qualification Data: For waste management coordinator.

1.5 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, or individual employed and assigned by General Contractor, with a record of successful waste management coordination of projects with similar requirements. Superintendent may serve as Waste Management Coordinator.
- B. Regulatory Requirements: Comply with transportation and disposal regulations of authorities having jurisdiction.
 - 1. California Department of Resources Recycling and Recovery (CalRecycle); Telephone (916) 341-6300; <https://www.calrecycle.ca.gov/condemo>.
 - 2. Local Integrated Waste Management Programs and Re-Use Programs in the Project area.
 - 3. California Department of Toxic Substances Control (DTSC).

1.6 WASTE MANAGEMENT PLAN

- A. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- B. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, 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, 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 in compliance with Section 02 41 20 "Selective Demolition."
 - 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 method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.
- C. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there were no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:
1. Total quantity of waste.
 2. Estimated cost of disposal (cost per unit). Include transportation and tipping fees and cost of collection containers and handling for each type of waste.
 3. Total cost of disposal (with no waste management).
 4. Revenue from salvaged materials.
 5. Revenue from recycled materials.
 6. Savings in transportation and tipping fees by donating materials.
 7. Savings in transportation and tipping fees that are avoided.
 8. Handling and transportation costs. Include cost of collection containers for each type of waste.
 9. Net additional cost or net savings from waste management plan.

1.7 PERFORMANCE REQUIREMENTS

- A. General: Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials.
- B. Diversion from Landfill: Waste categories appropriate for diversion from landfill shall include, but not be limited to, the following:
1. Land clearing debris.
 2. Soil.
 3. Wood: Clean dimensional wood, palette wood.
 4. Sheet Wood: Plywood, OSB and particle board.
 5. Concrete.
 6. Bricks.
 7. Concrete Masonry Units (CMU).
 8. Asphalt Concrete.
 9. Paper.
 - a. Bond.
 - b. Newsprint.
 - c. Cardboard and paper packaging materials.
 10. Cement Fiber Products: Shingles, panels, and siding.
 11. Metals.
 - a. Ferrous.
 - b. Non-ferrous.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

12. Paint.
13. Rigid Foam.
14. Glass.
15. Plastics.
16. Carpet and pad.
17. Beverage containers.
18. Insulation.
19. Gypsum Board.
20. Piping.
21. Electrical conduit.
22. Porcelain Plumbing Fixtures.
23. Fluorescent Light Tubes (per Department of Toxic Substances Control regulations).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 IMPLEMENTATION

- A. General: Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management during the entire duration of the Contract.
 1. Comply with operation, termination, and removal requirements in Section 01 50 00 "Temporary Facilities and Controls."
- B. Waste Management Coordinator: Engage a waste management coordinator or designate on-site party to be responsible for implementing, monitoring, and reporting status of waste management work.
 1. Distribute copies of the Construction Waste Estimate and Waste Management Report forms to the Job Site Foreman and each Subcontractor.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
- D. Meetings: Conduct Waste Management meetings with subcontractors who generate construction waste. Present current status of the Waste Management Report at regular job-site meetings.

3.2 SALVAGING DEMOLITION WASTE

- A. Comply with requirements in Section 02 41 20 "Selective Demolition" for salvaging demolition waste.

3.3 DEMOLITION AND CONSTRUCTION WASTE MANAGEMENT

- A. Materials Handling Procedures: Provide means by which waste materials will be protected from contamination and means to be employed in reuse or recycling of waste material consistent with requirements for acceptance by receiving facilities.

- B. Separation Facilities: Lay out and label a specific area to facilitate separation of materials for reuse and recycling. Recycling and waste bin areas shall be kept neat and clean and clearly marked to avoid contamination of materials.
- C. Hazardous Wastes: Hazardous wastes shall be separated, stored, and disposed of according to local regulations, and in accordance with specifications for such work as may be included in this Project.
- D. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at appropriate stages of the Project.

3.4 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged or recycled, 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.

3.5 ATTACHMENTS

- A. Form 01 74 19.01: Construction Waste Estimate.
- B. Form 01 74 19.02: Waste Management Report.

END OF SECTION

FORM 01 74 19.01 CONSTRUCTION WASTE ESTIMATE

This form must be completed by the Contractor. Attach additional sheets if necessary. Waste categories appropriate for diversion from landfill shall include but not be limited to categories listed below. Edit the list to suit Project's scope.

PROJECT NAME: _____ PROJECT NUMBER: _____

CONTRACTOR'S / VENDOR'S NAME: _____ DATE: _____

Waste Material (edit to suit)	Unit	Estimated Quantity Generated	Percent to Landfill	Percent Reused	Percent Recycled
Land Clearing Debris	CY				
Soil	CY				
Wood	CY				
Sheet Wood	CY				
Concrete	CY				
Bricks	CY				
Concrete Masonry Units	CY				
Asphalt Concrete	CY				
Paper	CY				
Cement Fiber Products	CY				
Metal (ferrous)	TON				
Metal (non-ferrous)	LBS				
Paint	CF				
Rigid Foam	CF				
Glass	CF				
Plastics	CF				
Carper and Pad	SY				
Beverage Containers	LBS				
Insulation	CF				
Gypsum Board	CF				
Porcelain Plumbing Fixtures	EA				
Fluorescent Light Tubes	EA				

CONSTRUCTION WASTE ESTIMATE

01 74 19.01 - 1

RESDMSTR: 3/31/2025

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FORM 01 74 19.02 WASTE MANAGEMENT REPORT

QUANTITIES

Waste Material (edit to suit)	Unit	Date Removed	Total Quantity Generated	Percent to Landfill	Percent Reused	Percent Recycled
Land Clearing Debris	CY					
Soil	CY					
Wood	CY					
Sheet Wood	CY					
Concrete	CY					
Bricks	CY					
Concrete Masonry Units	CY					
Asphalt Concrete	CY					
Paper	CY					
Cement Fiber Products	CY					
Metal (ferrous)	TON					
Metal (non-ferrous)	LBS					
Paint	CF					
Rigid Foam	CF					
Glass	CF					
Plastics	CF					
Carper and Pad	SY					
Beverage Containers	LBS					
Insulation	CF					
Gypsum Board	CF					
Porcelain Plumbing Fixtures	EA					
Fluorescent Light Tubes	EA					

FORM 01 74 19.02 WASTE MANAGEMENT REPORT

COST/INCOME

Waste Material (edit to suit)	Unit	Receiving Facility	Landfill Cost in \$			Reused in \$		Recycled in \$	
			Handling	Transport	Fee	Cost	Income	Cost	Income
Land Clearing Debris	CY								
Soil	CY								
Wood	CY								
Sheet Wood	CY								
Concrete	CY								
Bricks	CY								
Concrete Masonry Units	CY								
Asphalt Concrete	CY								
Paper	CY								
Cement Fiber Products	CY								
Metal (ferrous)	TON								
Metal (non-ferrous)	LBS								
Paint	CF								
Rigid Foam	CF								
Glass	CF								
Plastics	CF								
Carper and Pad	SY								
Beverage Containers	LBS								
Insulation	CF								
Gypsum Board	CF								
Porcelain Plumbing Fixtures	EA								
Fluorescent Light Tubes	EA								
TOTAL:									

SECTION 01 74 20

RECYCLED CONTENT CERTIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the recycled content certification.

1.2 REFERENCES

- A. State Agency Buy Recycled Campaign: <https://www.calrecycle.ca.gov/buyrecycled/stateagency>.
 - 1. Access this website for information on the Buy Recycled Campaign.

1.3 DEFINITIONS

- A. Product Categories: Recycled content categories identified for purchasing and reporting of products.
 - 1. Paper products.
 - 2. Printing and writing papers.
 - 3. Soil amendments and toppings.
 - 4. Erosion control products.
 - 5. Glass products.
 - 6. Lubricating oils.
 - 7. Plastic products.
 - 8. Paint.
 - 9. Tires.
 - 10. Tire-derived products.
 - 11. Antifreeze.
 - 12. Metals.
 - 13. Carpet.
 - 14. Pavement surfacing.
 - 15. Building finishes.
 - 16. Textiles.

- B. Recycled Content Product (RCP): All materials, goods, and supplies that are from one of the sixteen (16) Product Categories that meet the requirements identified in Public Contract Code, Section 12209, including any good or material that has been reused or refurbished without substantial alteration of its original form. For reused or refurbished products, there is no minimum content requirement.

RECYCLED CONTENT CERTIFICATION

- C. Non-Recycled Content Product (non-RCP): All materials, goods, and supplies that are from one of the sixteen (16) Product Categories having no recycled content or less than the minimum content or not meeting recyclability requirements, as identified in Public Contract Code, Section 12209.

1.4 REQUIREMENTS

A. Recycled content reporting for the Project.

1. Document and report the percentage of recycled content in materials, products, equipment and furnishings installed and provided for this Project.
2. State Agency Buy Recycled Campaign (SABRC) is a joint effort between the Department of General Services and the California's Department of Resources Recycling and Recovery (CalRecycle) to implement State law. Public Contract Code, Sections 12200-12320, requires State agencies to purchase recycled content products instead of non-recycled content products in sixteen (16) product categories whenever price, quality, and availability are comparable, to ensure that a minimum percentage of purchases in those categories have recycled content, and report these purchases annually to CalRecycle. This certification and reporting are utilized to comply with those requirements.
3. State and State's contractor(s) are required to purchase recycled content products in sufficient quantities to ensure that mandated recycled content products procurement goals are attained within sixteen (16) product categories.
4. The sixteen (16) product categories and their respective minimum postconsumer-content requirements are outlined in SABRC Handout on CalRecycle website:
<https://www2.calrecycle.ca.gov/Docs/Web/114687> .
5. In order to help state agencies identify all reportable purchases and all reportable recycled content products purchases, Contractor is mandated by the Public Contract Code, Section 12205 to certify in writing to the State the minimum percentage, if not the exact percentage, of postconsumer recycled-content material in the products, materials, goods, and supplies offered or sold to the State regardless of whether the product meets the requirements of Public Contract Code, Section 12209.
6. All products that can be classified as being in one of the sixteen (16) categories must be included in the reporting, whether the product is recycled content products or non- recycled content products. Only products that can be classified in one of the categories shall be reported.

1.5 SUBMITTALS

- A. Form 01 74 20.01 "Recycled Content Certification Worksheet": Submit with each product submittal from one of the sixteen (16) Product Categories, containing the following information:
1. Product Description, with applicable specification section of product.
 2. Quantity of product.
 3. Estimated material dollar value including any taxes and delivery cost.
 4. Designate the Product Category for each product listed.
 5. Designate whether product is a Recycled Content Product.
 6. Estimate of percentage of material content.
 7. Attach a copy of the manufacturer's or vendor's data sheet showing recycled content percentages if product is reported as a Recycled Content Product.

RECYCLED CONTENT CERTIFICATION

- B. Form 01 74 20.02 "State Agency Buy Recycled Campaign Procurement Summary": Submit with each product submittal from one of the sixteen (16) Product Categories, containing the following information:
1. Product Category.
 2. All reportable purchases, quantity and dollar value including any taxes and delivery cost.
 3. Recycled Content Product purchases, quantity and dollar value including any taxes and delivery cost.
 4. Percent of Recycled Content Product purchases, quantity and dollar value including any taxes and delivery cost.

1.6 CLASSIFICATION OF PRODUCTS

- A. Recycled content products and non-recycled content products that are made from multiple material types should be reported in the product category of the material type representing most of the product.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.1 IMPLEMENTATION

- A. Recycled Content Manager: Designate an individual responsible for instructing suppliers and subcontractors, and overseeing and documenting results of Recycled Content Certification for the Project.
- B. Recycled Content Manager shall document results of submitted Form 01 74 20.01 "Recycled Content Certification Worksheets" on the Form 01 74 20.02 "State Agency Buy Recycled Campaign Procurement Summary", in total for each product category. Only reportable products from one of the sixteen (16) categories should be recorded.
- C. Distribution:
1. Recycled Content Manager shall insure that Form 01 74 20.01 "Recycled Content Certification Worksheet" is submitted with each product submittal from one of the sixteen (16) Product Categories or at intervals agreed to by the State's Representative for monitoring of the program.
 2. Recycled Content Manager shall provide copies of the Form 01 74 20.02 "State Agency Buy Recycled Campaign Procurement Summary" at intervals agreed to by the State's Representative for monitoring of the program. At the conclusion of the construction and prior to final payment, Recycled Content Manager shall provide a copy of the final Form 01 74 20.02 "State Agency Buy Recycled Campaign Procurement Summary" under provisions of Section 01 77 00 "Closeout Procedures".

3.2 ATTACHMENTS

- A. Form 01 74 20.01: Recycled Content Certification Worksheet (Example).

RECYCLED CONTENT CERTIFICATION

1. An example of a completed form is attached for Contractor's reference. An electronic version of this form for Contractor's use will be provided by the State at the Project start meeting.
- B. Form 01 74 20.02: State Agency Buy Recycled Campaign Procurement Summary (Example).
1. An example of a completed form is attached for Contractor's reference. An electronic version of this form for Contractor's use will be provided by the State at the Project start meeting.

END OF SECTION

FORM 01 74 20.01 RECYCLED CONTENT CERTIFICATION WORKSHEET (EXAMPLE)

This form must be completed by the contractor. The contractor must submit a worksheet with each product submittal to the State agency, with a row completed for each product supplied to the State. Attach additional sheets if necessary. Information must be included, even if the product does not contain recycled content material but it is within one of the 16 categories. Refer to footnotes following this form.

PROJECT NAME: Visitor's Non-Secure Entrance, Statewide Youth Correctional Agency **PROJECT NUMBER:** 000000000001234

CONTRACTOR'S / VENDOR'S NAME: XYZ Contractors **DATE:** December 1, 2024

ADDRESS: 4300 Pleasant Valley Dr, Lincoln Logs, CA 95000 **PROJECT DIRECTOR:** (AS NAMED)

PHONE: (123) 456-7890 **EMAIL:** Super.Intendent@xyzcont.com

Product Description / Specification Section	Quantity	Estimated Dollars	Product Category ¹	RCP Y/N?	Virgin Content (Percent) ²	Postconsumer Material (Percent) ³	Secondary Material (Percent) ⁴	Total Percent ⁵
High Impact Resistant Gypsum Board / 092900	N/A	\$2,500	Paper	Y	50	10	40	100%
Cellulose Building Insulation / 072126	N/A	\$10,000	Paper	Y	20	10	70	100%
Underslab Vapor Barrier / 033000	N/A	\$1,500	Plastic	Y	20	20	60	100%
Electrical Cover Plates / 260533	N/A	\$2,500	Plastic	N	90	0	10	100%
Interior and Exterior Paint / 099100	300gal	\$8,000	Paint	N	100	0	0	100%
Recessed Entrance Mats / 124800	N/A	\$1,800	Tire Derived	Y	40	20	40	100%
Ceramic Tile / 093013	N/A	\$5,000	Glass	Y	35	10	55	100%
Exterior and Interior Windows / 085000	N/A	\$30,000	Glass	N	70	10	20	100%
Metal Studs / 092216	N/A	\$6,000	Metal	Y	65	15	10	100%

Public Contract Code Section 12205 (b) requires all businesses to certify in writing, under penalty of perjury, the minimum percentage, if not the exact percentage, of postconsumer material in the products, materials, goods, or supplies offered or sold to the State.

Public Contract Code Section 12205 (a) requires all State agencies to require all contractors to certify in writing, under penalty of perjury, the minimum percentage, if not the exact percentage, of postconsumer material in the products, materials, goods, or supplies offered or sold to the State.

Footnotes

You must submit copies of this form and/or other documentation for each product that is reportable.

1. Product category refers to one of the product categories into which the reportable product purchase falls. For products made from multiple materials, choose the category that comprises most of the product, either by a weight or volume criteria. The product categories and corresponding content requirements are defined as follows:

- | | | |
|---------------------------------|---------------------------|------------------------|
| 1. Paper products | 7. Plastic products | 13. Carpet |
| 2. Printing and writing papers | 8. Paint | 14. Pavement surfacing |
| 3. Soil amendments and toppings | 9. Tires | 15. Building finishes |
| 4. Erosion control products | 10. Tire-derived products | 16. Textiles |
| 5. Glass products | 11. Antifreeze | |
| 6. Lubricating oils | 12. Metal | |

Minimum content and recyclability requirements for the above product categories are identified in Public Contract Code, Section 12209. For reused or refurbished products, there is no minimum content requirement.

2. Virgin material content is that portion of the product made from non-recycled material, that is, the material is neither secondary nor postconsumer material.
3. Postconsumer material is defined as “a finished material which would have been disposed of as a solid waste, having completed its life cycle as a consumer item, and does not include manufacturing wastes.” This is material such as newspaper that you read and was recycled and then made into recycled-content newsprint or some other recycled product. Postconsumer material is generally any product that was bought by the consumer, used, and then recycled into another product.
4. Secondary material is defined as “fragments of finished products or finished products of a manufacturing process, which has converted a resource into a commodity of real economic value, and includes postconsumer material, but does not include excess virgin resources of the manufacturing process.” This is material such as newsprint that is trimmed from a roll in the paper plant that is returned to the beginning of the process to make recycled-content newsprint. The material (product) did not get to the consumer before being recycled.
- For example**, if a printing and writing paper contained 20 percent postconsumer material, you would indicate 20 percent in the postconsumer column and 80 percent in the virgin column. If the product had 40 percent secondary material and 20 percent postconsumer material, you would indicate 40 percent in the secondary column, 20 percent in the postconsumer column, and 40 percent in the virgin column. To meet the 50/10 content requirement of another product category, the product would contain 50 percent recycled content (40 percent secondary and 10 percent postconsumer material) and 50 percent virgin material.
5. The sum of the virgin column, the postconsumer column, and the secondary column must equal 100 percent.

Note: Products that are made from multiple material types should be reported in the product category of the material type representing most of the product. The amount of material used in the product can be measured by weight or volume. If, for instance, a chair is made from steel, aluminum, and plastic and most of the material, either by weight or volume, is plastic, report it as a plastic product. If, however, most of the product, either by weight or volume, is metal, report the purchase as a metal product.

FORM 01 74 20.01 RECYCLED CONTENT CERTIFICATION WORKSHEET

This form must be completed by the contractor. The contractor must submit a worksheet with each product submittal to the State agency, with a row completed for each product supplied to the State. Attach additional sheets if necessary. Information must be included, even if the product does not contain recycled content material but it is within one of the 16 categories. Refer to footnotes following this form.

PROJECT NAME: _____ **PROJECT NUMBER:** _____

CONTRACTOR'S / VENDOR'S NAME: _____ **DATE:** _____

ADDRESS: _____ **PROJECT DIRECTOR:** _____

PHONE: _____ **EMAIL:** _____

Product Description / Specification Section	Quantity	Estimated Dollars	Product Category ¹	RCP Y/N?	Virgin Content (Percent) ²	Postconsumer Material (Percent) ³	Secondary Material (Percent) ⁴	Total Percent ⁵

Public Contract Code Section 12205 (b) requires all businesses to certify in writing, under penalty of perjury, the minimum percentage, if not the exact percentage, of postconsumer material in the products, materials, goods, or supplies offered or sold to the State.

Public Contract Code Section 12205 (a) requires all State agencies to require all contractors to certify in writing, under penalty of perjury, the minimum percentage, if not the exact percentage, of postconsumer material in the products, materials, goods, or supplies offered or sold to the State.

Printed name of person completing form

Title

Signature of person completing form

RECYCLED CONTENT CERTIFICATION WORKSHEET

RESDMSTR: 3/31/2025

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Footnotes

You must submit copies of this form and/or other documentation for each product that is reportable.

1. Product category refers to one of the product categories into which the reportable product purchase falls. For products made from multiple materials, choose the category that comprises most of the product, either by a weight or volume criteria. The product categories and corresponding content requirements are defined as follows:

- | | | |
|---------------------------------|---------------------------|------------------------|
| 1. Paper products | 7. Plastic products | 13. Carpet |
| 2. Printing and writing papers | 8. Paint | 14. Pavement surfacing |
| 3. Soil amendments and toppings | 9. Tires | 15. Building finishes |
| 4. Erosion control products | 10. Tire-derived products | 16. Textiles |
| 5. Glass products | 11. Antifreeze | |
| 6. Lubricating oils | 12. Metal | |

Minimum content and recyclability requirements for the above product categories are identified in Public Contract Code, Section 12209. For reused or refurbished products, there is no minimum content requirement.

2. Virgin material content is that portion of the product made from non-recycled material, that is, the material is neither secondary nor postconsumer material.
3. Postconsumer material is defined as “a finished material which would have been disposed of as a solid waste, having completed its life cycle as a consumer item, and does not include manufacturing wastes.” This is material such as newspaper that you read and was recycled and then made into recycled-content newsprint or some other recycled product. Postconsumer material is generally any product that was bought by the consumer, used, and then recycled into another product.
4. Secondary material is defined as “fragments of finished products or finished products of a manufacturing process, which has converted a resource into a commodity of real economic value, and includes postconsumer material, but does not include excess virgin resources of the manufacturing process.” This is material such as newsprint that is trimmed from a roll in the paper plant that is returned to the beginning of the process to make recycled-content newsprint. The material (product) did not get to the consumer before being recycled.
For example, if a printing and writing paper contained 20 percent postconsumer material, you would indicate 20 percent in the postconsumer column and 80 percent in the virgin column. If the product had 40 percent secondary material and 20 percent postconsumer material, you would indicate 40 percent in the secondary column, 20 percent in the postconsumer column, and 40 percent in the virgin column. To meet the 50/10 content requirement of another product category, the product would contain 50 percent recycled content (40 percent secondary and 10 percent postconsumer material) and 50 percent virgin material.
5. The sum of the virgin column, the postconsumer column, and the secondary column must equal 100 percent.

Note: Products that are made from multiple material types should be reported in the product category of the material type representing most of the product. The amount of material used in the product can be measured by weight or volume. If, for instance, a chair is made from steel, aluminum, and plastic and most of the material, either by weight or volume, is plastic, report it as a plastic product. If, however, most of the product, either by weight or volume, is metal, report the purchase as a metal product.

FORM 01 74 20.02 STATE AGENCY BUY RECYCLED CAMPAIGN PROCUREMENT SUMMARY (EXAMPLE)

Attach copies of the recycled-content certification form(s) and/or other documentation for each product that contains any amount of recycled material. Refer to footnotes following this form.

PROJECT NAME: Visitor's Non-Secure Entrance, Statewide Youth Correctional Agency **PROJECT NUMBER:** 000000000001234

CONTRACTOR'S / VENDOR'S NAME: XYZ Contractors **DATE:** December 1, 2024

ADDRESS: 4300 Pleasant Valley Dr, Lincoln Logs, CA 95000 **PROJECT DIRECTOR:** (AS NAMED)

PHONE: (123) 456-7890 **EMAIL:** Super.Intendent@xyzcont.com

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Product Category ¹	All Reportable Purchases (QUANTITY) ²	All Reportable Purchases (DOLLARS) ³	RCP Purchases (QUANTITY) ⁴	RCP Purchases (DOLLARS) ⁵	Percent of RCP (QUANTITY) ⁶	Percent of RCP (DOLLARS) ⁷
Paper products		\$ 18,000.00		\$ 12,500.00		70%
Printing and writing paper		\$ 0.00		\$0.00		0%
Soil amendments and toppings	0(cu yd)	\$ 0.00	0(cu yd)	\$ 0.00	0%	0%
Erosion control products		\$ 20,000.00		\$ 20,000.00		100%
Glass products		\$ 35,000.00		\$ 5,000		14%
Lubricating oils	0(gal)	\$ 0.00	0(gal)	\$ 0.00	0%	0%
Plastic products		\$ 4,000.00		\$ 1,500.00		38%
Paint	300(gal)	\$ 8,000.00	0(gal)	\$ 0.00	0%	0%
Tires	0	\$ 0.00	0	\$ 0.00	0%	0%
Tire-derived products		\$ 2,000.00		\$ 2,000.00		100%
Antifreeze	0(gal)	\$ 0.00	0(gal)	\$ 0.00	0%	0%
Metal		\$ 11,000.00		\$ 6,000.00		54%
Carpet	12,000 (sq ft)	\$ 78,000.00	4,000 (sq ft)	\$ 42,000.00	33%	54%

STATE AGENCY BUY RECYCLED CAMPAIGN PROCUREMENT SUMMARY (EXAMPLE)

RESDMSTR: 3/31/2025

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Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Product Category ¹	All Reportable Purchases (QUANTITY) ²	All Reportable Purchases (DOLLARS) ³	RCP Purchases (QUANTITY) ⁴	RCP Purchases (DOLLARS) ⁵	Percent of RCP (QUANTITY) ⁶	Percent of RCP (DOLLARS) ⁷
Pavement surfacing	150 (ton)	\$50,000	75 (ton)	\$ 20,000.00	50%	40%
Building finishes		\$ 25,000.00		\$ 5,000.00		20%
Textiles		\$12,000.00		\$2,000.00		17%
		Total⁸: \$ <u>263,000</u>		Total⁹: \$ <u>116,000</u>		Total¹⁰: <u>44.1%</u>

Footnotes

Attach copies of the recycled-content certification forms and/or other documentation for each product.

Note: All purchases within these product categories, regardless of the source of the product or the type of contract used to purchase them, should be included in your report. Include **all** product purchases — RCPs and non-RCPs.

1. Include **all** purchases (RCPs and non-RCPs) within the 16 product categories. RCPs outside of the 16 product categories **cannot** be counted toward attaining the procurement goals and are not reportable.
2. Indicate the quantity (units) of **all** purchases (RCPs and non-RCPs) in each product category during the course of the project. Quantities do not need to be reported for the product categories with shading.
3. Indicate the total dollars spent on **all** purchases (RCPs and non-RCPs) in each product category purchased during the course of the project.
4. Indicate the total quantity (units) of RCPs purchased during the course of the project. Quantities do not need to be reported for the product categories with shading.
5. Indicate the total dollars spent on RCPs during the course of the project for each category.
6. Indicate the percentage of RCPs purchased. The percent recycled is calculated by dividing the figure in column 4 by the figure in column 2 and multiplying by 100. Percentages do not need to be calculated for the product categories with shading.
7. Indicate the percentage of total dollars spent on RCPs in each category. The percentage recycled is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.
8. The total of column 3 should be equivalent to the total estimated dollars spent on **all** products (RCPs and non-RCPs) during the course of the project.
9. The total of column 5 should be equivalent to the estimated total dollars spent on reportable RCPs during the course of the project.
10. Column 7 is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.

FORM 01 74 20.02 STATE AGENCY BUY RECYCLED CAMPAIGN PROCUREMENT SUMMARY

Attach copies of the recycled-content certification form(s) and/or other documentation for each product that contains any amount of recycled material. Refer to footnotes following this form.

PROJECT NAME: Patton Admin and Annex Reroof **PROJECT NUMBER:** 10039

CONTRACTOR'S / VENDOR'S NAME: _____ **DATE:** _____

ADDRESS: _____ **PROJECT DIRECTOR:** James Villapudua

PHONE: _____ **EMAIL:** _____

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Product Category ¹	All Reportable Purchases (QUANTITY) ²	All Reportable Purchases (DOLLARS) ³	RCP Purchases (QUANTITY) ⁴	RCP Purchases (DOLLARS) ⁵	Percent of RCP (QUANTITY) ⁶	Percent of RCP (DOLLARS) ⁷
Paper products						
Printing and writing paper						
Soil amendments and toppings						
Erosion control products						
Glass products						
Lubricating oils						
Plastic products						
Paint						
Tires						
Tire-derived products						
Antifreeze						
Metal						
Carpet						

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Product Category ¹	All Reportable Purchases (QUANTITY) ²	All Reportable Purchases (DOLLARS) ³	RCP Purchases (QUANTITY) ⁴	RCP Purchases (DOLLARS) ⁵	Percent of RCP (QUANTITY) ⁶	Percent of RCP (DOLLARS) ⁷
Pavement surfacing						
Building finishes						
Textiles						
		Total ⁸ : \$		Total ⁹ : \$		Total ¹⁰ : %

Footnotes

Attach copies of the recycled-content certification forms and/or other documentation for each product.

Note: All purchases within these product categories, regardless of the source of the product or the type of contract used to purchase them, should be included in your report. Include **all** product purchases — RCPs and non-RCPs.

1. Include **all** purchases (RCPs and non-RCPs) within the 16 product categories. RCPs outside of the 16 product categories **cannot** be counted toward attaining the procurement goals and are not reportable.
2. Indicate the quantity (units) of **all** purchases (RCPs and non-RCPs) in each product category during the course of the project. Quantities do not need to be reported for the product categories with shading.
3. Indicate the total dollars spent on **all** purchases (RCPs and non-RCPs) in each product category purchased during the course of the project.
4. Indicate the total quantity (units) of RCPs purchased during the course of the project. Quantities do not need to be reported for the product categories with shading.
5. Indicate the total dollars spent on RCPs during the course of the project for each category.
6. Indicate the percentage of RCPs purchased. The percent recycled is calculated by dividing the figure in column 4 by the figure in column 2 and multiplying by 100. Percentages do not need to be calculated for the product categories with shading.
7. Indicate the percentage of total dollars spent on RCPs in each category. The percentage recycled is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.
8. The total of column 3 should be equivalent to the total estimated dollars spent on **all** products (RCPs and non-RCPs) during the course of the project.
9. The total of column 5 should be equivalent to the estimated total dollars spent on reportable RCPs during the course of the project.
10. Column 7 is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
 - 1. Beneficial Occupancy procedures.
 - 2. Completion procedures.
 - 3. Warranties.
 - 4. Record Drawings.
 - 5. Operation manuals.
 - 6. Maintenance manuals.
 - 7. Operation and maintenance documentation directory manuals.
 - 8. Final cleaning.

1.2 DEFINITIONS

- A. Punch-list (List of Incomplete Items): Contractor-prepared list of items to be completed or corrected, prepared for the State's use prior to State's inspection, to determine if the Work is complete.

1.3 SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's Punch-list: Initial submittal at Beneficial Occupancy.
- C. Certified Punch-list: Final submittal at Completion.
- D. Certificate of Insurance: For continuing coverage.
- E. Guaranties, Warranties and Bonds: Submittal prior to Final Inspection.
- F. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set(s) of marked-up record prints.
- G. Record Drawings Reports: Submit written report monthly at the time of Application for Payment submittal indicating items incorporated into Project Record Drawings concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.
- H. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specifications Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

CLOSEOUT PROCEDURES

1. Format: Submit operation and maintenance manuals in the following format:
 - a. Submit **by uploading to web-based project software site**. Enable reviewer comments on draft submittals.
- I. Certification of Disabled Veteran Business Enterprise Participation: Submit Form STD 817 with final Application for Payment.
- J. Certification of Small Business Participation:
 1. Preliminary Report upon Completion of the Work.
 2. Final Report upon receipt of Final Payment.
- K. Waste Management Report: Submittal prior to Final Inspection. Provide as specified in individual Specifications Section.
- L. Recycled-Content Certification Worksheet: Submittal prior to Final Inspection. Provide as specified in individual Specifications Section.
- M. State Agency Buy Recycled Campaign Procurement Summary: Submittal prior to Final Inspection. Provide as specified in individual Specifications Section.
- N. Schedule of Maintenance Material Items: For maintenance material submittal items required by other Sections.

1.4 COMPLETION PROCEDURES

- A. Punch-list: Prepare and submit a list of items to be completed and corrected a minimum of **(30)** thirty calendar days prior to the end of the Contract Time.
- B. Submittals Prior to Completion: Before requesting final inspection for determining the date of Completion of the Work, complete the following.
 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting State unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit closeout submittals specified in other Division 01 Sections, including Waste Management Report and Recycled-Content Certification Worksheet.
 3. Submit Project Record Drawings, and similar final record information.
 4. Submit each operation and maintenance manual in final form prior to requesting inspection for Completion and at least 30 days before commencing demonstration and training.
 5. Submit closeout submittals specified in individual Sections, including warranties, certifications, training and similar documents.
 6. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by State. Label with manufacturer's name and model number. Obtain State's signature for receipt of submittals.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section.
 7. Submit testing, adjusting, and balancing records.

CLOSEOUT PROCEDURES

- C. Procedures Prior to Completion: Complete the following a minimum of 14 days prior to requesting inspection for determining date of Completion of the Work. List items below that are incomplete at time of request.
1. Make final changeover of permanent locks and deliver keys to State. Advise State's personnel of changeover in security provisions.
 2. Complete startup and testing of systems and equipment.
 3. Perform preventive maintenance on equipment used prior to Completion.
 4. Instruct State's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 01 79 00 "Demonstration and Training."
 5. Advise State of changeover in utility services.
 6. Participate with State in conducting inspection and walkthrough with authorities having jurisdiction.
 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 8. Complete final cleaning requirements.
 9. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Final Inspection: Submit a written request for final inspection to determine Completion a minimum of 14 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, State will either proceed with inspection or notify Contractor of unfulfilled requirements. After inspection, State will notify Contractor of items, either on Contractor's list or additional items identified by State, that must be completed or corrected before Acceptance of the Work.
1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- E. Submittals After Final Inspection:
1. Submit a final Application for Payment in accordance with Section 01 29 00 "Payment Procedures."
 2. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 3. Certified Punch-list: Submit certified copy of punch list, endorsed and dated by Architect or Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
- F. Completion of the Work date and Acceptance of the Work will be determined as specified in Document 00 72 00 "General Conditions of the Contract for Construction", Article 8.6.

1.5 PUNCH-LIST ITEMS

- A. Organization of List: Include 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 and proceeding from lowest floor to highest floor, listed by room or space number.
 2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
 3. Include the following information on each page:

CLOSEOUT PROCEDURES

- a. Project name and number.
 - b. Date.
 - c. Page number.
4. Submit list of incomplete items in the following format:
 - a. Web-Based Project Software Upload: Utilize software feature for creating and updating list of incomplete items (punch list).

1.6 CONTRACTOR'S CERTIFICATION OF DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) PARTICIPATION

- A. Submit, upon Completion of the Work, together with a final Application for Payment, complete and accurate Form STD 817 "Prime Contractor's Certification – DVBE Subcontractor Report". The State shall review the Form STD 817, and if it is determined to be complete and accurate, the payment will be authorized.
- B. If the Form STD 817 is late or determined to be incomplete or inaccurate, the State shall withhold ten thousand dollars (\$10,000) from the final payment, or the full final payment if less than ten thousand dollars (\$10,000), and provide the Contractor with a notice allowing at least 15 days, but not more than 30 days to cure the defect.
 1. If the Contractor does not comply by the deadline identified in the Cure Notice, the State shall permanently deduct the ten thousand dollars (\$10,000) from the final payment, or the full final payment if less than ten thousand dollars (\$10,000).

1.7 CONTRACTOR'S CERTIFICATION OF SMALL BUSINESS (SB) PARTICIPATION

- A. If final payment has been made to Small Business, upon Completion of the Work, submit the two-page certification, Forms 01 77 00.01 and 01 77 00.02 "Contractor's Certification of Small Business Participation".
- B. If retention has been withheld, and final payment to Small Business subcontractors will not be made until the Contractor has received final payment from the State, Contractor shall:
 1. Upon completion of the Work submit the two-page certification, Forms 01 77 00.01 and 01 77 00.02 "Contractor's Certification of Small Business Participation"; and mark the box entitled "PRELIMINARY REPORT" on Form 01 77 00.02.
 2. Within 30 days of receipt of final payment submit an updated two-page certification, Forms 01 77 00.01 and 01 77.00.02 "Contractor's Certification of Small Business Participation" and mark the box entitled "FINAL REPORT" on Form 01 77 00.02. The FINAL REPORT shall be mailed to: DGS, Real Estate Services Division, Project Management & Development Branch, 707 Third Street 4th Floor, West Sacramento, CA 95605; or sent as a scanned Adobe PDF or similar e-mail attachment to State's Representative.
- C. When completing the Certification, include all Small Businesses even if the firms were not listed at bid time when completing percentage calculations. Provide comments if Small Business utilization was different than that approved in original Agreement. The second page of the Certification may be copied as needed to list all firms.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Standard Guarantee: Refer to Document 00 72 00 "General Conditions of the Contract for Construction", Article 3.5. Submittal is not required for a standard one year guarantee for Work on this project.
- B. Additional Guaranties/Warranties: Provide additional guaranties/warranties, in excess of one year, where specifically required by individual Specifications Sections. Additional guaranties/warranties will commence on the date of Completion of the Work as established by the State's Representative.
- C. Time of Submittal: Submit written warranties on request of State for designated portions of the Work where warranties are indicated to commence on dates other than date of Completion, or when delay in submittal of warranties might limit State's rights under warranty.
 - 1. For equipment put into use with State's permission during construction, submit warranties within 10 days after first operation.
- D. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- E. Provide duplicate, notarized copies of warranties. Execute Contractor's submittals and assemble documents executed by subcontractors, suppliers, and manufacturers.
- F. Warranties:
 - 1. Bind warranties and bonds in heavy-duty, three-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 number, and name of Contractor.
- G. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- H. Provide additional copies of each warranty to include in operation and maintenance manuals.

1.9 RECORD DRAWINGS

- A. General: Use one set of State furnished paper copies of the Contract Drawings as record prints.
- B. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 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.

CLOSEOUT PROCEDURES

- 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. Information entered on record prints shall be neat, legible, and emphasized by drawing "revision clouds" around changed items.
 - d. Symbols and designations used in preparing record prints shall match those used in Contract Drawings.
 - e. Record data as soon as possible after obtaining it.
 - f. Record and check the markup before enclosing concealed installations.
 - g. Cross-reference record prints to corresponding 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.
 - 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. Special measurements.
 - k. Changes made by Change Order.
 - l. Changes made following Additional Detailed Instructions.
 - m. Details not on the original Contract Drawings.
 - n. Field records for variable and concealed conditions.
 - o. Record information on the Work that is shown only schematically.
 - p. Miscellaneous records required by other Specification Sections.
3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
4. Mark record prints 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 Change Order, Request for Information and Additional Detailed Instructions numbers, and similar identification, where applicable.

1.10 MAINTENANCE OF RECORD DRAWINGS

- A. Maintenance of Record Drawings: Store Record Drawings in the field office apart from the Contract Documents used for construction. Do not use Project Record Drawings for construction purposes. Maintain Record Drawings in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Drawings for State reference during normal working hours.
- B. Monthly Applications for Payments will not be processed without review and approval of Project Record Drawings by the State.
- C. Final Inspection will not be scheduled until Project Record Drawings are submitted to the State.

1.11 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
 - 3. All material shall be neatly typewritten; handwritten instructions are not acceptable.
 - 4. Extraneous Data: Where contents of manuals include manufacturers' catalog pages, clearly indicate precise items included in this installation and delete, or otherwise clearly indicate, manufacturer's data with which this installation is not concerned.

1.12 REQUIREMENTS FOR OPERATION AND MAINTENANCE MANUALS

- A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Date of submittal.
 - 4. Name and contact information for Contractor.
 - 5. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system.
 - 1. Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by State's operating personnel for types of emergencies indicated.
 - a. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 - 1) Fire.

- 2) Flood.
- 3) Gas leak.
- 4) Water leak.
- 5) Power failure.
- 6) Water outage.
- 7) System, subsystem, or equipment failure.
- 8) Chemical release or spill.

E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents.

1.13 OPERATION MANUALS

A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by State's operating personnel.

B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:

1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
2. Performance and design criteria if Contractor has delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

C. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.
2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

D. Operating Procedures: Include the following, as applicable:

CLOSEOUT PROCEDURES

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

- E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- F. Piped Systems: Diagram piping as installed and identify color coding where required for identification.

1.14 MAINTENANCE MANUALS

- A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.
 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by State's operating personnel.
- B. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- C. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranties and bonds as described below.
- D. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- E. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:
 1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

CLOSEOUT PROCEDURES

2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 3. Identification and nomenclature of parts and components.
 4. List of items recommended to be stocked as spare parts.
- F. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
1. Test and inspection instructions.
 2. Troubleshooting guide.
 3. Precautions against improper maintenance.
 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 5. Aligning, adjusting, and checking instructions.
 6. Types of cleaning agents to be used and methods of cleaning.
 7. List of cleaning agents and methods of cleaning detrimental to product.
 8. Schedule for routine cleaning and maintenance.
 9. Demonstration and training video recording, if available.
- G. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- H. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- I. Warranties: Include copies of warranties and lists of circumstances and conditions that would affect validity of warranties.
1. Include procedures to follow and required notifications for warranty claims.
- J. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
1. Do not use original project record documents as part of 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.
1. Use cleaning products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform 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 Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove spills, stains, and other foreign deposits.
 - c. Rake grounds that are not planted, mulched, or paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. 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.
 - f. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
 - h. Vacuum and mop hard surfaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations 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. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - l. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - o. Clean ducts, blowers, and coils as required by Sustainable Design Requirements.
 - p. Clean luminaires, lamps, globes, and reflectors to function with full efficiency.
 - q. Clean strainers.
- C. Deficient cleaning operations, as determined by the State, shall be immediately corrected as directed.
- D. Pest Control: Comply with pest control requirements in Section 01 50 00 "Temporary Facilities and Controls." Prepare written report.
- E. Construction Waste Disposal: Comply with waste-disposal requirements.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations required by Section 01 73 00 "Execution" before requesting inspection for determination of Completion.

3.3 ATTACHMENTS

- A. Certification of Disabled Veteran Business Enterprise Participation: Form STD 817 "Prime Contractor's Certification – DVBE Subcontractor Report"
- B. Certification of Small Business Participation: 2 pages.
 - 1. Form 01 77 00.01: Contractor's Certification of SB Participation (the first page).
 - 2. Form 01 77 00.02: Contractor's Certification of SB Participation (the second page).

END OF SECTION

STATE DEPARTMENT AND CONTRACT INFORMATION							
State Department Information		Contract Information		Prime Contractor Information:		FOR STATE USE ONLY	
State Department Name:		Contract #:		Name:		Date Received:	
State Department Address:		FISCAL Supplier ID#:		Address:			
Contract Manager Name:		Contract Execution Date:		Phone #:			
Contract Manager Phone #:		Date Work Completed:		Email:			
Contract Manager Email Address:		Contract Award Amount:		Date Last Payment Received:			
				Contract Received Amount:			
SECTION 3 List all Disabled Veteran Business Enterprise firms involved with this contract.							
(A) DVBE Subcontractor(s) Name	(B) DVBE Subcontractor(s) Address	(C) DVBE Certification ID Number	(D) Total Contract Commitment Percentage to DVBE	(E) Total Contract Commitment Amount to DVBE	(F) Total Payment Amount to DVBE	(G) Difference in Amount Paid to DVBE (F - E)	(H) Percentage Paid to DVBE (F/Contract Received Amount)
Number of DVBE Subcontractors			Grand Total	\$ 0.00	\$ 0.00	\$ 0.00	0.00%
1.			0.00%			0.00	0.00%
2.			0.00%			0.00	0.00%
3.			0.00%			0.00	0.00%
4.			0.00%			0.00	0.00%
5.			0.00%			0.00	0.00%
6.			0.00%			0.00	0.00%
7.			0.00%			0.00	0.00%
8.			0.00%			0.00	0.00%
9.			0.00%			0.00	0.00%
10.			0.00%			0.00	0.00%
11.			0.00%			0.00	0.00%
12.			0.00%			0.00	0.00%
13.			0.00%			0.00	0.00%
(I) Comments/Explanations							
Use next page for additional lines							
I certify under penalty of perjury under the laws of the State of California that all information submitted is true and correct.							
Prime Contractor		Print Name:				Date:	
		Title:					
		Signature:					
Return upon completion of contract.							
Americans with Disabilities (ADA) Notice: Persons with disabilities requiring reasonable modifications should contact the OSDS Report Coordinator at OSDSReports@dgs.ca.gov							

STATE DEPARTMENT AND CONTRACT INFORMATION							
State Department Information		Contract Information		Prime Contractor Information		FOR STATE USE ONLY	
State Department Name:		Contract #:		Name:		Date Received:	
State Department Address:		FISCAL Supplier ID#:		Address :			
Contract Manager Name:		Contract Execution Date:		Phone #:			
Contract Manager Phone #:		Date Work Completed:		Email:			
Contract Manager Email Address:		Contract Award Amount:		Date Last Payment Received:			
				Contract Received Amount:			
List all Disabled Veteran Business Enterprise firms involved with this contract.							
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
DVBE Subcontractor(s) Name	DVBE Subcontractor(s) Address	DVBE Certification ID Number	Total Contract Commitment Percentage to DVBE	Total Contract Commitment Amount to DVBE	Total Payment Amount to DVBE	Difference in Amount Paid to DVBE (F - E)	Percentage Paid to DVBE (F/Contract Received Amount)
Number of DVBE Subcontractors			Total	\$ 0.00	\$ 0.00	\$ 0.00	0.00%
14.			0.00%			0.00	0.00%
15.			0.00%			0.00	0.00%
16.			0.00%			0.00	0.00%
17.			0.00%			0.00	0.00%
18.			0.00%			0.00	0.00%
19.			0.00%			0.00	0.00%
20.			0.00%			0.00	0.00%
21.			0.00%			0.00	0.00%
22.			0.00%			0.00	0.00%
23.			0.00%			0.00	0.00%
24.			0.00%			0.00	0.00%
25.			0.00%			0.00	0.00%
26.			0.00%			0.00	0.00%
27.			0.00%			0.00	0.00%
28.			0.00%			0.00	0.00%
29.			0.00%			0.00	0.00%
30.			0.00%			0.00	0.00%
31.			0.00%			0.00	0.00%
32.			0.00%			0.00	0.00%
33.			0.00%			0.00	0.00%
34.			0.00%			0.00	0.00%
35.			0.00%			0.00	0.00%
36.			0.00%			0.00	0.00%
Attach copies of this page for additional lines							
I certify under penalty of perjury under the laws of the State of California that all information submitted is true and correct.							
Americans with Disabilities (ADA) Notice: Persons with disabilities requiring reasonable modifications should contact the OSDS Report Coordinator at OSDSReports@dgs.ca.gov							

Form Completion Instructions

GENERAL INFORMATION: Military and Veteran Code (MVC) 999.5(d), 999.7 and Government Code (GC) 14841, and California Code of Regulations (CCR) 1896.78(e) requires all Prime Contractors that committed to have a Disabled Veteran Business Enterprise (DVBE) perform an element of work for a contract to report DVBE subcontractor participation information and certify to the state that all DVBE subcontracting payments were made. Departments are required to withhold \$10,000 from the final payment, or the full payment if less than \$10,000, on contracts until the Prime Contractor complies with the certification requirements by submitting this form.

If prime contractors do not comply with the requirements after given notice to cure by the state departments, the withheld amount will be permanently deducted.

All contracted work must be completed before submission of invoice(s) and this certification form.

Prime Contractors are required to maintain records supporting the information submitted on this form and that all payments to DVBE subcontractor(s) were made. Upon request, proof of payment must be provided (MVC 999.5(d)).

INCLUDE

- **ONLY ONE contract per Report**
- **All DVBEs that performed an element of work for this contract regardless of tier**

State Department Information:

State Department Name: Enter the State Department name

State Department Address: Enter the State Department address

Contract Manager Name: Enter the Contract Manager name

Contract Manager Phone Number: Enter the Contract Manager phone #

Contract Manager Email Address: Enter the Contract Manager email address

Contract Information

Contract Number: Enter the Contract Number

Contractor's FI\$Cal Supplier ID Number: Enter your FI\$Cal supplier ID number

Contract Execution Date: Enter the date contract was signed

Date Work Completed: Enter the date the work was completed on the contract

Contract Award Amount: Enter the total dollar amount awarded for this contract including all financial amendments

State of California
 Department of General Services Procurement Division
 Prime Contractor's Certification - DVBE Subcontracting
 Report STD 817, Formerly DGS PD 810P
 (Rev. 10/2021)

Form Completion Instructions

Prime Contractor Information:

Prime Contractor Name: Enter your name as shown on the contract

Prime Contractor Address: Enter your address

Phone Number: Enter your number (with area code)

Email Address: Enter your email address

Date Last Payment Received: Enter the date the last payment for work performed was received

Contract Received Amount: Enter the dollar amount of the last payment received

For State Use Only

Date STD 817 Received: Enter date the Contract Manager received the STD 817 from the Prime Contractor

TABLE INSTRUCTIONS

A) DVBE Subcontractor(s) Name: Enter the name of all DVBEs that are listed to perform an element of work or supplies for this contract and any formal approved substitution(s). (Use additional lines if the name does not fit on a single line) Use page two for additional lines.

B) DVBE Subcontractor(s) Address: Enter the address of each DVBE (Use page 2 for additional lines if address does not fit on a single line)

C) DVBE Certification ID Number: Enter each DVBE's certification number

D) Total Contract Commitment Percentage to DVBE: Enter the total percentage of contracted dollars to each DVBE at the time of award

E) Total Contract Commitment Amount to DVBE: Enter the entire amount contracted to each DVBE at the time of award

F) Total Payment Amount to DVBE: Enter the total amount paid to all DVBEs that performed an element of work or were suppliers for this contract

Form Completion Instructions

Note: Complete and accurate certifications are due upon completion of contract.

G) Difference in Amount Paid to DVBE: The form will compute the difference of DVBE dollars contracted compared to dollars paid

H) Percentage Paid to DVBE: The form will compute the percentage paid to DVBEs using the Contract Received Amount entered under State and Contract Information

Instructions I

I) Comments/Explanations: Enter any relevant comments and explanations for any differences between the DVBE amounts or percentages committed and paid. Reference the line number if comments and explanations are used.

SIGNATURE BLOCK

Prime Contractor's Signature: Enter your printed name, title, sign with an electronic signature or a wet signature, and date

CONTRACTOR'S CERTIFICATION OF SMALL BUSINESS PARTICIPATION

TO: Real Estate Services Division (Construction Services Area Office Address)	Date:
	Project Number:
	Contract Number:

FROM:

PROJECT
TITLE:

THIS IS TO CERTIFY THAT I,

(Print Name)

AS AN AUTHORIZED OFFICIAL OF

(Firm or Corporation)

WORKING IN THE CAPACITY OF

(Title)

HAVE BEEN PROPERLY AUTHORIZED BY SAID FIRM OR CORPORATION TO SIGN THE
FOLLOWING STATEMENT PERTAINING TO SUBJECT CONTRACT.

Pursuant to Government Code, Section 14841,I, the undersigned, hereby certify that to the best of my knowledge, the Small Business participation
information listed on the attached report for the above contract is complete and correct.

SIGNED:

DATE:

FORM 01 77 00.02 CONTRACTOR'S CERTIFICATION OF SMALL BUSINESS PARTICIPATION

State of California · Department of General Services

☐ **PRELIMINARY REPORT**

CONTRACTOR'S CERTIFICATION OF SMALL BUSINESS (SB) PARTICIPATION

☐ **FINAL REPORT**

CONTRACT NUMBER		PROJECT NUMBER		CONTRACT COMPLETION DATE		CONTRACT ACCEPTANCE DATE	
PRIME CONTRACTOR			ORIGINAL CONTRACT AMOUNT			FINAL CONTRACT AMOUNT	
DESCRIPTION OF WORK PERFORMED AND MATERIALS PROVIDED	SB BUSINESS NAME AND ADDRESS	SB CERT. NO.	SB CONTRACT PAYMENTS				
			PAYMENT AMOUNT	DATE WORK COMPLETED	DATE OF FINAL PAYMENT	COMMENTS	
TOTAL \$							

ORIGINAL SMALL BUSINESS COMMITMENT: _____%

ACTUAL SMALL BUSINESS ACHIEVED: _____%

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SECTION I – ASBESTOS ASBESTOS ABATEMENT AND DISTURBANCE AND ASBESTOS-RELATED WORK

PART 1 - GENERAL

1.1.0 DESCRIPTION

- A. Work included: The licensed Contractor shall furnish all labor, employee training, materials, services, permits and agreements, insurance (specifically covering the handling and transportation of Asbestos-Containing Material, Asbestos-Containing Construction Material and Asbestos-Containing Waste Material), and equipment which is specified, shown, or reasonably implied for abatement or disturbance of the materials included for abatement and all other work in accordance with the latest regulations from the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the State of California Division of Occupational Safety and Health (DOSH), Ventura County Air Pollution Control District (APCD) and any other applicable federal, state and local government regulations.

- B. The scope of work for this project includes the removal and disposal of the identified material in the survey:

LIMITED ASBESTOS AND LEAD-CONTAINING
MATERIALS SURVEY REPORT

SUBJECT PROPERTY:

PATTON STATE HOSPITAL ROOF
3102 HIGHLAND AVENUE
PATTON, CALIFORNIA 92369

PROJECT NO. 100308-AS, XRF

SURVEY DATE: APRIL 5, 2022
REPORT DATE: APRIL 20, 2022

- C. Contractor is required to verify the scope of work prior to commencing work, including quantities of materials to be removed, and to determine the degree of difficulty in removing the identified materials.
- D. Applicable Publications: The publications listed below form a part of these Specifications to the extent referenced. The publications are referred to in the text by the basic designation only.

1. Code of Federal Regulations (CFR) Publications:

29 CFR 1910.1001	Asbestos
29 CFR 1926.1101	Asbestos
29 CFR 1910.1200	Hazard Communication

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- 29 CFR 1910.1020 Access to Employee Exposure and Medical Records
- 29 CFR 1910.132 General Requirements - Personal Protective Equipment
- 29 CFR 1910.133 Eye and Face Protection
- 29 CFR 1910.134 Respiratory Protection
- 29 CFR 1910.145 Specifications for Accident Prevention, Signs and Tags
- 29 CFR 1910.146 Confined Space
- 29 CFR 1910.147 Lockout/Tagout
- 40 CFR 61, Subpart A General Conditions
- 40 CFR 61, Subpart M National Emission Standards for Asbestos
- 40 CFR 61.152 Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations
- 2. American National Standard Institute/American Industrial Hygiene Association (ANSI/AIHA) Publications:
 - Z9.2-2006 Fundamentals Governing the Design and Operation of Local Exhaust Systems
- 3. American National Standard Institute/American Society of Safety Engineers (ANSI/ASSE) Publications:
 - Z88.2-2015 Practices for Respiratory Protection
- 4. National Fire Protection Association (NFPA):
 - Standard 90A Installation of Air Conditioning and Ventilation Systems, 2015 Edition
- 5. U. S. Environmental Protection Agency (EPA):
 - Publication No. 560/5-85-024 Guidance for Controlling Asbestos-Containing Materials in Buildings, June, 1985
- 6. American Society for Testing and Materials (ASTM) Publications:
 - E 849-82 Safety and Health Requirements Relating to Occupational Exposures to Asbestos
 - P 189 Specifications for Encapsulants for Friable Asbestos-Containing Materials
- 7. National Institute of Occupational Safety and Health (NIOSH) Publications:
 - Manual of Analytical Methods, 2nd Edition, Volume 1
 - Method 7400 Asbestos and Other Fibers by PCM
- 8. Underwriters Laboratories, Inc. (UL) Publications:
 - 586-77 (R1982) Test Performance of High Efficiency Particulate Air Filter Units
- 9. California Code of Regulations (CCR) Publications:
 - 8 CCR 1529 Construction Safety Orders-Asbestos
 - 8 CCR 5208 General Industry Safety Orders-Asbestos
 - 8 CCR 5144 Respiratory Protective Equipment
- 10. Ventura County Air Pollution Control District (APCD):
 - Rule 62.7-Asbestos – Demolition and Renovation
- 11. Other Local or Regional Regulations that apply to Asbestos-Related Work.

Please note Contractor is responsible for ascertaining the extent to which these regulations will affect removal operations and to comply therewith.

1.1.1 DEFINITIONS

- A. Owner: State
- B. Abatement: Procedures to control fiber release from Asbestos-Containing building materials. Includes removal, encapsulation, and enclosure.
- C. Aggressive Method: means removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM.
- D. Air Lock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area (See Decontamination Enclosure System Plan in the Drawing section of this Project Manual).
- E. Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time.
- F. Air Sampling Professional: The professional contracted or employed to supervise air monitoring and analysis schemes. This individual is also responsible for recognition of technical deficiencies in Worker protection equipment and procedures during both planning and on-site phases of an Abatement Project. Acceptable Air Sampling Professionals include Industrial Hygienists, Environmental Engineers and Environmental Scientists with equivalent experience in Asbestos air monitoring and Worker protection.
- G. Amended Water: Water to which a surfactant has been added.
- H. Area Monitoring: Sampling of airborne fiber concentrations within the Asbestos Work Area and outside the Asbestos Work Area which are representative of the airborne concentrations of Asbestos fibers which may reach the breathing zone.
- I. Asbestos: Means fibrous forms of various hydrated minerals including Chrysotile, (fibrous serpentine), Crocidolite (fibrous Riebeckite), Amosite (fibrous Cummingtonite-Grunerite), Fibrous Tremolite, fibrous Actinolite, and fibrous Anthophyllite.
- J. Asbestos (CCR definitions): Means fibrous forms of various hydrated minerals including Chrysotile, (fibrous serpentine), Crocidolite (fibrous Riebeckite), Amosite (fibrous Cummingtonite-Grunerite), Fibrous Tremolite, fibrous Actinolite, and fibrous Anthophyllite.
- K. Asbestos-Containing Material (ACM): Material composed of asbestos of any type in an amount greater than one percent (1%) by weight, either alone or mixed with other fibrous or non-fibrous materials.
- L. Asbestos-Containing Construction Material (ACCM): Means any manufactured construction material which contains more than one-tenth of one percent (0.1%) asbestos by weight.
- M. Asbestos-Containing Waste Material: Means friable asbestos waste and asbestos waste from control devices (Pollution Control Devices). Asbestos-Related Work: means any activity which by disturbing ACCM may release asbestos fibers into the air.
- N. Assumed ACM: means materials assumed to contain more than one percent (>1%) asbestos.

- O. Asbestos Fibers: Asbestos fibers having an aspect ratio of at least 3:1 and 5 micrometers in length when air samples analyzed using Phase Contrast Microscopy (PCM).
- P. Authorized Visitor: The State's Project Team members, the State's Representative, and any representative of a regulatory or other agency having jurisdiction over the Project.
- Q. Category I Non-Friable ACM: means packings, gaskets, resilient floor covering, mastics, and asphalt roofing products containing more than 1 percent (>1%) asbestos.
- R. Category II Non-Friable ACM: means material containing more than 1 percent (>1%) asbestos that is not Category I Non-Friable ACM, and when dry, and in its present form, cannot be crumbled, pulverized, or reduced to powder by hand pressure. For the purposes of this Specification, these products include transite board, pipe and asbestos cement products, plaster, stucco, and paint – unless removed by aggressive or mechanical methods.
- S. Clean Room: An uncontaminated area or room which is a part of the Worker Decontamination Enclosure with provisions for storage of Workers' street clothes and protective equipment.
- T. Contained Work Area: A Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System.
- U. Curtained Doorway: A device to allow ingress or egress from one area to another while permitting minimal air movement between the areas, typically constructed by placing three overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, and securing the vertical edge of the outer two sheets along the opposite vertical side of the doorway (see detail on Decontamination Enclosure System Plan in the Drawing section of this Project Manual.)
- V. Decontamination Enclosure System: A series of connected rooms, with Air Locks or Curtained Doorways between any two adjacent rooms, for the decontamination of Workers and of materials and equipment. A Decontamination Enclosure System always contains at least one Air Lock to the Work Area.
- W. Disturbance: means activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. Disturbance includes cutting away small amounts of ACM and PACM, no greater than the amount which can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.
- X. Encapsulant (sealant): A liquid material which can be applied to Asbestos-Containing material and which controls the possible release of Asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).
- Y. Encapsulation: All herein-specified procedures necessary to apply an encapsulant to Asbestos-Containing building materials to control the possible release of Asbestos fibers into the ambient air.
- Z. Excursion Limit: An exposure of airborne concentrations of Asbestos fibers of one fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.

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- AA. Equipment Room: A contaminated area or room which is part of the Worker Decontamination Enclosure with provisions for storage of contaminated clothing and equipment.
- BB. Equipment Decontamination Enclosure: That portion of a Decontamination Enclosure System designed for controlled transfer of materials, waste containers and equipment, typically consisting of a Washroom and a Holding Area.
- CC. Friable Asbestos Material (40 CFR 61, Subpart M Definition): Material that contains more than one percent (1%) Asbestos by weight and that can be broken, crumbled, pulverized, or reduced to powder by hand pressure when dry.
- DD. Fixed Object: A unit of equipment or furniture or other building component which cannot be detached from the building or can only be detached by destructive methods resulting in irreparable damage to the item.
- EE. Glovebag Method: A method with limited applications for removing small amounts of friable Asbestos-Containing material from heating ventilation and air-conditioning ducts, short piping runs, valves, joints, elbows, and other nonplanar surfaces in an (HVAL) Isolated (non-contained) Work Area. The glovebag (typically constructed of six [6] mil transparent Regulite plastic) has two inward-projecting long sleeve rubber gloves, one inward-projecting water wand sleeve, an internal tool pouch, and an attached, labeled receptacle for Asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all Asbestos fibers released during the removal process. All Workers who are permitted to use the Glovebag Method must be highly trained, experienced, and skilled in this method.
- FF. HEPA Filter: A high-efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97 percent of all monodispersed particles (Asbestos fibers) equal to or greater than 0.3 microns in mass median aerodynamic equivalent diameter.
- GG. HEPA Vacuum Equipment: Vacuuming equipment with a HEPA filter system.
- HH. Holding Area: A room in the Equipment Decontamination Enclosure located between the Washroom and an uncontaminated area. The Holding Area consists of a chamber with an Air Lock connecting it to the Washroom and an Air Lock connecting it to the uncontaminated area.
- II. Isolation: The sealing of all openings into a Work Area.
- JJ. Isolated (non-contained) Work Area: A Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.
- KK. Movable Object: A unit of equipment, furniture or other building component which is detached or can be detached from the building without destructive methods or results.
- LL. Miscellaneous ACM: means building material containing more than one percent (>1%) asbestos that is not surfacing or TSI.
- MM. Negative Air Pressure Equipment: A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas.
- NN. Non-friable Asbestos-Containing Material: Material that contains more than one (1) percent Asbestos by weight in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the Asbestos is well bound and will not release fibers during any appropriate end-use, handling, demolition, storage, transportation, processing, or disposal.

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- OO. Operations and Maintenance (O&M) Activities: means repair and maintenance operations which disturb an amount of ACM that does not exceed one 60" by 60" waste bag.
- PP. Owner's Representative: The agent of the State who shall observe the Work, perform tests, verify that abatement methods and procedures specified by the Contract Documents are being complied with, and reports all observations and test results to the State.
- QQ. Permissible Exposure Limit (PEL): An airborne concentration of asbestos, (Chrysotile, Crocidolite, Amosite, Tremolite, Anthophyllite, Actinolite, or a combination of the six (6) types of asbestos) in excess of 0.1 fibers per cubic centimeter (f/cc) of air as an eight (8) hour time-weighted average (TWA), as determined by the method prescribed in Appendix A of 29 CFR 1926.1101(c).
- RR. Personal Monitoring: Sampling of Asbestos fiber concentrations within the breathing zone of an Asbestos Worker.
- SS. Plasticize: To cover floors, walls and other structural elements of a Work Area with plastic sheeting as herein specified with all seams securely taped.
- TT. Presumed Asbestos Containing Material (PACM): means thermal system insulation and surfacing material found in buildings constructed no later than 1980.
- UU. Regulated Area: means an area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit. Requirements for regulated areas are set out in Title 8 CCR 1529.
- VV. Regulated Asbestos Containing Material (RACM): means material containing more than one percent (>1%) asbestos that is friable or has been or will be rendered friable. This includes all materials disturbed by aggressive or mechanical methods.
- WW. Removal: All herein-specified procedures necessary to remove Asbestos-Containing materials from the designated areas and to dispose of these materials at an acceptable site.
- XX. Shower Room: A room between the Clean Room and the Equipment Room in the Worker Decontamination Enclosure with hot and cold or warm running water, and suitably arranged for complete showering during decontamination. The Shower Room comprises an Air Lock between contaminated and clean areas.
- YY. Surfacing ACM: means building material containing more than one percent (>1%) asbestos that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).
- ZZ. Surfactant: A chemical wetting agent added to water to reduce surface tension and improve penetration.
- AAA. Thermal System Insulation (TSI) ACM: means building material containing greater than one percent (>1%) asbestos that is applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.
- BBB. Washroom: A room between the Work Area and the Holding Area in the Equipment Decontamination Enclosure System where equipment and waste containers are decontaminated. The Washroom comprises an Air Lock.

- CCC. Wet Cleaning: The process of eliminating Asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as Asbestos-contaminated waste.
- DDD. Work Area (Also known as "Regulated Area"): Designated rooms, spaces, or areas of the Project in which Asbestos Abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A Contained Work Area is a Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System. An Isolated (non-contained) Work Area is a Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.
- EEE. Worker Decontamination Enclosure System: That portion of a Decontamination Enclosure System designed for controlled passage of Workers, and other personnel and Authorized Visitors, typically consisting of a Clean Room, a Shower Room, and an Equipment Room.

1.1.2 QUALITY CONTROL

- A. Safety Compliance: In addition to detailed requirements of this Specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities and publications regarding handling, storing, transporting, and disposing of Asbestos Waste materials. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the Work. Where the requirements of this Specification and referenced documents vary, the most stringent requirement shall apply.
- B. Contractor shall have at least one copy each of 29 CFR Part 1910 - Occupational Safety and Health Standards, 29 CFR 1926.1101, 40 CFR 61 Subparts A & M, 8 CCR 1529, Ventura County APCD Rule 62.7 and all pertinent state and local regulations at its office and at the job site.
- C. Before the commencement of any work at the site, the Contractor shall post bilingual (as appropriate) EPA, OSHA and DOSH caution signs at entrances/exits to the Work Area to comply with EPA, OSHA and DOSH regulations.
- D. Area Monitoring shall be performed by the State's Representative, which will conduct air sampling of the Abatement Project (1) outside the building, (2) immediately outside the Work Area, (3) in the Work Area, and (4) for Work Area Clearance Testing after decontamination operations.
- E. Personal Monitoring and other monitoring, which are required by law, or considered necessary by the Contractor for Worker protection shall be the responsibility of the Contractor.

1.1.3 SUBMITTALS AND NOTIFICATIONS

- A. Personnel Training: Prior to the start of work, Contractor shall submit (1) declaration certifying that all Contractor employees have been adequately trained, and (2) photocopy of training certificates for each employee from their respective training agency or organization. When certified or other formal worker training is required by state or local agencies, Contractor may submit a photocopy of the employee's Asbestos Worker Certification card in lieu of training certificates.

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- B. Respirators: Submit prior to the start of work, manufacturer's certification that the respirators to be used in this Project comply with government agency requirements. Contractor's certifications for each employee must clearly state that each employee has been fit tested and properly trained for respirators.
- C. Medical Examinations: Submit proof that all persons providing labor and/or professional services that will be entering contaminated areas have had current (less than one year prior to the date of their participation on the Project) medical examinations. Furnish physician's interpretation of said examinations to the State on the Certificate of Medical Compliance form provided in the Supplementary General Conditions section of these Construction Documents prior to the start of work, or prior to that person's commencing work on this Project, and for each person subsequently providing labor and/or professional services at the job site for whom a certificate was not initially furnished. NOTE: In lieu of the above certificate, current medicals will be acceptable providing that a statement in the medical exam declares that the worker can wear a negative pressure respirator while performing their work. Contractor shall resubmit physician's interpretation of medical examination for each worker or professional employed by him whose physician or regulatory required annual or employment termination examination becomes due while said worker or professional is participating in the Project. This requirement can be waived or modified only by the State in writing or verbally, followed up in writing.
- D. Abatement Product Data: Within ten (10) days after Contractor has received the State's Notice of Award, submit manufacturer's catalogue, samples, Safety Data Sheets, (SDS) and other items needed to demonstrate fully the quality of the proposed abatement materials. Under no circumstances shall proposed materials be used before written approval from the State. Submittals are required if the following materials are proposed (not necessarily a complete list.) Do not submit data on products not proposed for this project:
 - 1. Encapsulant,
 - 2. Surfactant,
 - 3. Protective packaging,
 - 4. Lagging adhesive,
 - 5. Glovebags,
 - 6. Resaturant, and
 - 7. Solvents.
- E. Permits: Submit prior to the start of work proof satisfactory to the State that all required permits have been obtained. If no permits are required, submit notarized letter stating such.
- F. Waste Transportation: Submit prior to the start of work the method of transport of Hazardous Waste, including the name, address, EPA ID number, and telephone number of the Transporter(s).
- G. Hazardous Waste Disposal Facility: Submit for approval prior to the start of work the name, address, EPA ID number, and telephone number of the Hazardous Waste Disposal Facility(s) to be used.
- H. Contractor's Work Plan: Submit prior to the start of work for approval a detailed plan of the work procedures to be used in the removal, repair, clean-up or encapsulation of materials containing Asbestos. Such a plan shall include:
 - 1. Location of Asbestos Work Areas.

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2. Project schedule including important milestones, critical paths and interface of trades involved in the Work.
 3. Personal air monitoring procedures.
 4. Detailed description of the method to be employed in order to control pollution, including negative air equipment calculations.
 5. Names of Superintendent, Foremen, Project Manager and other key personnel, and their day time and emergency telephone numbers.
 6. Security Plan including sketches necessary to clearly describe the plan.
 7. Emergency evacuation plan for injured workers, fire and other emergencies.
 8. Firewatch Plan including any sketches necessary to clearly describe the plan.
 9. A contingency plan, in the event of a major contamination incident caused by fire (on or off the floor being abated), a large breach in the Work area containment barrier, the opening of stairwell doors, breakage of the building's exterior windows or sabotage. Such a plan will focus on how to maintain safety and order when the building is fully occupied by office employees and other building users.
 10. The Asbestos Plan must be approved in writing by the State before the start of any work.
- I. Equipment Certification: Submit prior to the start of work, manufacturers' certification that vacuums, negative air pressure equipment filters, and other local exhaust ventilation equipment conform to ANSI Z9.2-2006.
- J. Rental Equipment: When rental equipment is to be used in removal areas or to transport waste materials, a copy of the written notification provided to the rental company informing them of the nature of use of the rented equipment shall be signed by the rental company and submitted to the State prior to the start of work.
- K. Notifications: Contact the following government agencies in writing by certified/registered mail or overnight mail service, postmarked or delivered at least ten (10) days prior to Project commencement:
1. California Division of Occupational Safety and Health (DOSH/Cal-OSHA):
6150 Van Nuys Boulevard, Suite 405
Van Nuys, California 91401
 2. Ventura County Air Pollution Control District Headquarters:
4567 Telephone Road, Suite 200
Ventura, California 93003

All notifications shall contain as a minimum the following information:

1. Name, address and telephone number of the State including the contact person.
2. Name, address, EPA numbers, license number and telephone number of the Contractor including the contact person.
3. Name, address and description of the building, including size, age, and prior use of building.
4. The type and quantity of friable Asbestos material involved and the description of the Work.

5. Scheduled starting and completion dates for Abatement Work.
6. Procedures that shall be employed to comply with the regulations.
7. The name, address, EPA number and telephone number of the Transporter.
8. The name and address of the Hazardous Waste Disposal Facility where the Asbestos Waste shall be deposited.

Copies of all government agency correspondence and proof of delivery shall be delivered to the State prior to the start of work. NOTE: No work shall commence until verification of required notifications is made by the State.

- L. Certificate of Worker's Release: The Contractor shall have any person providing labor and professional services at the Project site sign a Certificate of Worker's Release, on the form provided in the Supplementary General Conditions section of these Construction Documents, before commencing work on this Project. Contractor shall furnish the notarized original of such Certificate of Worker's Release for each such person prior to the start of work or before that person's commencement of Work, and for each person subsequently providing labor or professional services at the job site for which a Certificate was not initially furnished. This requirement can be waived or modified only by the State, in writing or verbally, followed in writing.
- M. Provide proof of Contractor's License and Asbestos Certification from the Contractor Licensing Board, and proof of registration with the Division of Occupational Safety and Health in accordance with California Labor Code, Section 6501. Submit proof with Bid.
- N. Encapsulant manufacturer's certification (when required) that the Contractor is an approved applicator of the encapsulants to be used on this project
- O. Scaffolding: Submit to the State prior to abatement work, certification from a licensed Civil or Structural Engineer that the scaffolding design and installation is safe and adequate for the purpose for which it will be used. Submit copy of scaffolding permit when required by local regulatory agencies.
- P. Certification naming the manufacturer of supplied-air respirator equipment. Include certification of compliance with Occupational Safety and Health Administration, United States Environmental Protection Agency, and all other pertinent regulatory agencies. Include testing reports (previous and current). Include the rated capacity of each type of equipment used.

1.1.4 ADMINISTRATION OF THE CONTRACT

- A. All Work is to be performed under the observation of the State, who shall be free to enter and review all Work.

1.1.5 SAFETY EVACUATION and EMERGENCY DECONTAMINATION PROCEDURES

- A. Submit written notification of emergency procedures prior to the start of work for evacuation of injured Workers.
- B. Written notification of police, fire and emergency medical personnel of planned abatement activities, work scheduled, and layout of work area.

- C. An employee safety meeting shall be conducted by Contractor prior to the commencement of the work shift. All aspects of emergency planning shall be covered in the meeting. Considerations of fire, explosion, toxic atmospheres, electrical hazards, slips, fall and trips, confined spaces and heat related injuries.
- D. Employees must be trained in evacuation procedures in the event of workplace emergency.
- E. For non-life threatening situations, employees injured or otherwise incapacitated must decontaminate following normal procedures, with assistance from fellow workers if necessary, before exiting the workplace to obtain proper treatment.
- F. For life-threatening injury or illness, worker decontamination shall take least priority after measures to stabilize the injured worker, remove the worker from the workplace and secure proper medical treatment.
- G. Aid for workers with life-threatening injury shall not be delayed in order to comply with standard decontamination procedures. It is the responsibility of the Contractor to make the determination if the seriousness of the injury warrants noncompliance with the standard decontamination procedures.

1.1.6 TRAINING PROGRAM

- A. Each employee shall receive AHERA MAP training including the proper handling of materials that contain Asbestos, including all aspects of work procedures and protective measures, use of protective clothing and respiratory protection, use of showers, entry and exit procedures from Work Areas and in OSHA and DOSH regulations. All workers who are scheduled to use the Glovebag Method must be highly trained, experienced and skilled in this method. Each employee shall also understand the health implications and risks involved, including the illness possible from exposure to airborne Asbestos fibers and the increased risk of lung cancer associated with smoking cigarettes and Asbestos exposure, understand the use and limits of the respiratory equipment to be used, and understand the purpose of medical surveillance and the monitoring of airborne quantities of Asbestos as related to health and respiratory equipment. The training program shall comply with federal, state or local regulatory requirements.
- B. Emergency evacuation procedures to be followed in the event of Worker injury or compressor failure shall be included in Worker Training program.

1.1.7 DRESS AND EQUIPMENT

- A. Work clothes shall consist of disposable full-body coveralls, head covers, boots, rubber gloves, sneakers or equivalent. Sleeves at wrists and cuffs at ankles shall be secured. Fire retardant full-body coveralls are required in areas of open flame, or where required by local regulations.
- B. Eye protection and hard hats shall be available as appropriate or as required by applicable safety regulations.
- C. Provide Authorized Visitors with suitable protective clothing, headgear, eye protection, and footwear whenever they are required to enter the Work Area.

1.1.8 RESPIRATORS

- A. Respiratory protective equipment shall be National Institute of Occupational Safety and Health (NIOSH) approved in accordance with the provisions of 42 CFR 84 unless superseded by local regulations with more stringent requirements. Respiratory instructions shall be posted in the Clean Room.
- B. Use Supplied-Air Respirator in the following locations or for the abatement of the following materials until the Contractor establishes the average airborne concentrations of Asbestos fibers the employees will confront. Determine in accordance with 29 CFR 1926.1101 regulations both the Excursion Limit and the 8-hours' time-weighted average (TWA) concentration of Asbestos fibers to which employees will be exposed in each Work Area. When the exposure limits are established, the respirators presented in 42 CFR 84, that afford greater protection at such upper concentrations of airborne Asbestos, may be used.
 - 1. When required by regulations or State.
- C. At the sole discretion of the Contractor use Powered Air Purifying Respirators In lieu of Supplied Air Respirators in the following locations or for the abatement of the following materials until the Contractor establishes the average airborne concentrations of Asbestos fibers the employees will confront. Determine, in accordance with 29 CFR 1926.1101 regulations, both the 30 minutes' Excursion Limit and the 8-hours TWA concentration of Asbestos fibers to which employees will be exposed in each Work Area. When the exposure levels are established the respirators presented in 42 CFR 84, that afford greater protection at such upper concentrations of airborne Asbestos fibers, may be used.
 - 1. When required by regulations or State.
- D. Half-mask or full-face air-purifying respirators with HEPA filters may be worn during the preparation of the Work Area, performance of repair work, use of glovebag techniques and decontamination work, provided Work Area fiber concentrations are less than 0.1 f/cc.
- E. Compressed air systems shall be designed to provide air volumes and pressures to accommodate respirator manufacturer's specifications. The compressed air systems shall have a receiver of adequate capacity to allow escape of all respirator wearers from contaminated areas in the event of compressor failure. Compressed air must meet the requirements of 29 CFR 1910.134(i) for Grade D air. Compressors must have an in-line carbon monoxide monitor, and periodic inspection of the carbon monoxide monitor must be evidenced. Documentation of adequacy of compressed air system/respiratory protection system must be retained on site. This documentation will include a list of compatible components, with the maximum number and type of respirators that may be used with the system. Periodic testing of compressed air shall insure that systems provide air of sufficient quality.
- F. When supplied air respirators are not required, the Contractor shall provide Workers with approved, permanently personally-issued and marked respirators with changeable filters. The Contractor shall provide a sufficient quantity of filters approved for Asbestos so that Workers can change filters during the workday. Filters shall not be used any longer than one (1) workday or whenever an increase in breathing resistance is detected. The respirator filters shall be stored at the job site in the Clean Room and shall be totally protected from exposure to Asbestos before their use.

- G. Workers shall always wear a respirator, properly fitted on the face, in the Work Area, from the initiation of preparation work until all areas have been given written clearance by the State.
- H. Provide at least two (2) extra air hoses and respirators when supplied air respirators are required. Provide at least two (2) extra Powered Air Purifying Respirator (PAPR) respirators when this type of respirator is required. Provide instruction on the use of the above respirators to Authorized Visitors.

PART 2 - PRODUCTS

1.2.0 GENERAL

- A. Contractor shall furnish, provide and utilize the following products in the Work Area as specified.

1.2.1 MATERIALS

- A. Sheeting: Polyethylene sheet, minimum 6 mils thick unless otherwise specified, in sizes to minimize the frequency of joints.
- B. Surfactant (Wetting Agent): A surfactant which, when added to water, will enhance its qualities of penetration and adhesion. It should be 50% polyoxyethylene ester and 50% polyoxyethylene ether, or the equivalent and must not be a hazardous waste as defined in applicable federal and state regulations. To control employee exposures during asbestos handling, mixing, removal, cutting, and cleanup.
- C. Impermeable Containers: Containers shall be suitable to receive and retain any asbestos-containing or contaminated materials until disposable at an approved landfill. The containers shall be both airtight and watertight and labeled in accordance with Local, State and Federal regulations.

1.2.2 PROTECTIVE PACKAGING

- A. Appropriately labeled clear, double six (6) mil sealable polyethylene bags as a minimum.
- B. Appropriately labeled, sealable, impermeable drum containers.
- C. Bilingual labels (English and other appropriate language[s]) on containment glovebags, waste packages, contaminated material packages and other containers shall be in accordance with EPA, OSHA and DOSH standards.

1.2.3 WARNING LABELS AND SIGNS

- A. As required by 29 CFR 1910.1001, 29 CFR 1910.1200, 29 CFR 1926.1101 and other pertinent state and local regulations including 8 CCR 1529, whichever is the most stringent.

1.2.4 SURFACTANT

- A. Surfactant, or wetting agent, for amending water will be 50 percent polyoxyethylene glycol ester and 50 percent polyoxyethylene ether, or equivalent, at a concentration of one (1) ounce per five (5) gallons of water.

1.2.5 LAGGING ADHESIVE

- A. Shall meet NFPA 90A Code, such as Arabol, Childers CP52, Insul-Coustic 102, or approved equal.

1.2.6 GLOVEBAGS

- A. The glovebag (typically constructed of six [6] mil transparent regulated plastic) has two (2) inward-projecting long sleeve rubber gloves, one (1) inward-projecting water wand sleeve, an internal tool pouch, and an attached labeled receptacle for Asbestos Waste.

1.2.7 TOOLS AND EQUIPMENT

- A. Provide suitable tools for removal of asbestos cement panels, roof felts, tar, and mastics.
- B. Negative air pressure equipment: HEPA filtration systems shall have filtration equipment in compliance with ANSI Z9.2-2006, local exhaust ventilation. No air movement system or air filtering equipment shall discharge unfiltered air outside the Work Area.
- C. Manometer:
 - 1. Shall have a built-in alarm. Continuous hard copy readout optional.
- D. HEPA Vacuums:
 - 1. Shall comply with ANSI Z9.2-2006.
- E. Vacuum Loaders:
 - 1. Shall have HEPA filtration system in compliance with ANSI Z9.2-2006.
 - 2. Meets or exceeds OSHA, DOSH and EPA safety regulations.
 - 3. Fully-enclosed negative pressure system.

1.2.8 SOLVENTS

- A. Shall be non-toxic, non-carcinogenic, nonflammable (flash-point in excess of 200° F.), nonreactive with or damaging to materials it will come in contact with and approved for indoor use by regulatory agencies. Provide ventilation of Work Area as required by manufacturer. Vent exhaust to the exterior of the building and in a manner that will not result in adverse effects to other areas of the facility, adjacent facilities or public areas. Solvents shall not be used in areas which food stuffs are stored.

PART 3 – EXECUTION

1.3.0 WORKER PROTECTION

A. Worker protection procedures – to be posted in clean room:

1. Bilingual (English and other appropriate language[s]) Worker Protection Procedures must be posted in the Clean Room. If the first language of all Workers is English, the bilingual procedures are accepted.
2. Each Worker and Authorized Visitor shall, upon entering the job site: All workers engaged in exterior asbestos removal work activities must wear disposable full body coveralls, disposable head covers, hard hats, goggles, and gloves as required by OSHA/Cal-OSHA for the complete protection of the workers.
3. All Workers shall, each time they leave the Work Area: remove gross contamination from clothing before leaving the Work Area; proceed to the Equipment Room and remove all clothing except respirators; still wearing the respirator, proceed naked to the showers; clean the outside of the respirator with soap and water while showering; remove the respirator; thoroughly shampoo and wash themselves.
4. Following showering and drying off, each Worker shall proceed directly to the Clean Room and dress in their personal clothing. Before reentering the Work Area, each Worker and Authorized Visitor shall put on a clean respirator and shall dress in clean protective clothing.
5. Contaminated protective clothing and work footwear shall be stored in the Equipment Room when not in use in the Work Area. At appropriate times or upon completion of Asbestos Abatement, dispose of protective clothing and footwear as contaminated waste, or launder in accordance with government regulations.
6. Workers removing waste containers from the Equipment Decontamination Enclosure shall enter the Holding Area from outside wearing a respirator and dressed in clean disposable coveralls. No Worker shall use this system as a means to leave or enter the Washroom or the Work Area.
7. The disposable clothing worn outside the Work Area shall be of different color or markings from the disposable clothing worn inside the Work Area.
8. Workers shall not eat, drink, smoke, or chew gum or tobacco while in the Work Area.
9. Workers and Authorized Visitors with beards or who are unshaven shall not enter the Work Area.

B. Medical Examinations and Histories

1. Before exposure to airborne Asbestos, the Contractor will provide each employee providing labor or professional services at the Project site with a current comprehensive medical exam, including a history of respiratory and gastrointestinal diseases, meeting the general definition outlined in 29 CFR 1910.1001, 29 CFR 1910.134, 29 CFR 1926.1101 and Title 8 CCR, Section 5208 and Section 1529. Contractor shall submit a current Medical Examination report. The medical report shall contain a statement from the examining physician that the employee can (or cannot) function normally wearing a respirator or that the safety or health of the employee or other employees will or will not be impaired by his use of a respirator. No employee will be allowed to enter the Work Area without having first provided a copy of their Medical Examination, to the State and until the submitted form or

medical has been approved by the State. Local medical requirements shall apply if they are more stringent.

C. Employee Identification

1. The Contractor shall furnish an employee roster to the State for each work shift. Each employee entering the Work Area shall have in his possession a plastic-coated identification tag with the employee's photograph, name, age, height, weight, and eye color. Each employee shall bring to the job at least two forms of identification, one of which has his/her photograph.

1.3.1 WORK AREA PREPARATION

A. Preparation procedures for removal of non-friable roofing materials, non-friable exterior materials and non-friable ACCM:

1. Above removal and debris cleanup activities unless specified otherwise, shall be executed in a "Regulated" Work Area.
2. Contractor shall establish a decontamination area that is adjacent to the work area for the decontamination of workers and their equipment, which is contaminated with asbestos. The decontamination area consists of an area covered by an impermeable drop cloth on the ground or horizontal working surface.
3. The area must be of sufficient size to accommodate cleaning of equipment and removing personal protective equipment without spreading contamination beyond the area.
4. For abatement of non-friable roof ACM materials, the shower may be replaced with a cleaning station consisting of a bucket of clean water, liquid soap and/or wipes for use by asbestos workers. Face and all exposed skin cleaned prior to exiting the regulated work area.
5. Roof level heating and ventilation air intake sources shall be isolated after these ventilation systems have been shut down.
6. The interior of the building shall be appropriately and adequately protected from debris that may fall through the roof decking during removal.
7. Provide temporary lighting in Work Areas when required to perform work with limited lighting, such as night work.

1.3.2 ASBESTOS REMOVAL

- A. Before removal, Asbestos materials shall be sprayed with Amended Water. The Asbestos materials shall be sufficiently saturated without causing excessive dripping and to prevent emission of airborne fibers, at any time, in excess of Maximum Acceptable Level. Spray materials repeatedly during the work process to maintain a wet condition. If the materials are not easily saturated, then the Work Area shall be constantly misted to keep fiber emission minimal.
- B. Asbestos material shall be removed in manageable sections by a multi-person team, some of whom are wetting and the remainder removing and cleaning. Roofing materials shall be

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removed in an intact state to the extent feasible. Any material which falls to the floor shall be wetted and picked up immediately. Material shall not be allowed to dry out. Asbestos-containing material that has been removed from a roof shall not be dropped or thrown to the ground. Asbestos-containing shall be carried or passed to the ground by hand. For heights up to 50 feet, provide inclined chutes or scaffolding to intercept drop. For heights exceeding 50 feet, provide enclosed dust-proof chutes. Before a second area can be started, removed material shall be packed into approved and labeled packaging while it is still wet. The outside of all containers shall be clean before leaving the Work Area. Move containers to the Washroom (Shower Room when Equipment Decontamination System is not required), wet-clean each container thoroughly, and move to Holding Area pending removal to uncontaminated areas.

- C. Asbestos material applied to concrete, steel decks, beams, columns, pipes, tanks, and other nonporous surfaces shall be wet-cleaned to a degree that no traces of debris or residue are visible.
- D. Asbestos material debris, drippings, splatters, and overspray on surfaces within accessible ceiling cavities and other accessible areas shall be removed in the same manner and cleaned to the degree as specified above.
- E. The Work Area shall be kept orderly, clean and clear of work materials, polyethylene sheeting, tape, cleaning material, and clothing, and all other disposable material or items used in the Work Area. These materials shall be packed into properly labeled protective packaging and removed from the Work Area.
- F. Protective packages and drums containing Asbestos materials shall be cleaned and stored in the isolated Holding Area until that time when the materials are to be loaded and hauled to the Hazardous Waste Disposal Facility for burial. The packages and drums shall be stored in piles no higher than four (4) feet, and in a manner that will not result in damage to the packages or drums. Transport bags in covered drums or carts from the Holding Area to the transport.
- G. Equipment removal procedures: Clean surfaces of contaminated equipment thoroughly by wet-sponging or wiping before moving such items into the Washroom (Shower Room when Equipment Decontamination System is not required) for final cleaning and removal to uncontaminated areas. Ensure that personnel do not leave Work Area through the Equipment Decontamination Enclosure.
- H. Do not bag water used during abatement activities. Properly filter and drain water into building sanitary drain unless prohibited by local regulations. Filter shall have a maximum pore size of 1.0 micron.
- I. Non-friable materials:
 - 1. Remove materials with wet methods and in a manner that will not create visual emissions or exposures above the PEL. Adequately wet the materials before, during and after removal.
 - 2. Do not use saws, grinders, chippers, bead blasters, buffers or other such mechanical equipment without HEPA filtered local exhaust ventilation.

3. The Work Area shall be kept orderly, clean and clear of work materials, debris, etc.
4. Package non-friable materials in two layers of leak-tight containers consisting of 6-mil poly bags or lined containers labeled as Non-Hazardous Waste – Non-Friable Asbestos, or in accordance with the disposal facility's requirements.

J. Roofing Materials:

1. Use removal methods that will keep the tearing and fraying of the roof membrane to a minimum. If sawing tools are used, they must be factory equipped with HEPA filtering devices, or perform in a manner that will not release visible dust emissions. Roofing debris made friable shall be misted with amended water before transportation to dumpsters. Do not use excessive amounts of amended water that may result in leakage into the building. Apply additional amended water, if necessary when the roofing debris is in the dumpster. Install, when possible, a protective tarp under the Work Area or dumpster where amended water leakage may result in property damage.
 - a. Off-load roofing debris into dumpster by means of chutes. Use dust control methods as required to hold dust generation to a minimum.
 - b. Roofing shall be removed so that no felts are visible. Asphalt bitumen residue need not be removed from the substrate unless directed otherwise in the Contract Documents.
 - c. Have adequate material on hand and available labor to protect exposed roof areas from water intrusion during inclement weather.
 - d. Do not commence with removal work if inclement weather is probable. NOTE: Contractor shall be responsible for water damage as the result of the Contractor's work or failure to perform work. [Contractor shall be responsible for maintaining the abated portions of the roof free from moisture intrusion for seven (7) calendar days following the written notice of completion, or until the roofing contractor have been given Notice to Proceed by the State, whichever comes first].
 - e. The Work Area shall be kept orderly, clean and clear of work materials.
 - f. Package roofing materials in labeled double six (6) mil lined containers or bags, or in with the disposal facilities requirements.

1.3.3 DECONTAMINATION OF WORK AREA

A. Decontamination procedure for "Regulated" Work Areas:

1. The Contractor shall perform a complete visual inspection of the Work Area.
2. Asbestos debris encountered shall be removed.
3. Sealed drums and bags, and all equipment used in the Work Area shall be included in the cleanup, and shall be removed from the Work Area at the appropriate time in the cleaning sequence.
4. Upon completion of his visual inspection and any necessary cleaning, the Contractor shall notify the State that the Work Area is ready for Initial Review.

5. Upon proper notification, the State will review the Work Area for general conformance with the Specifications. Any nonconformance of the Work shall be remedied by the Contractor until the Work Area is in compliance, and at the Contractor's expense.
6. Upon successful compliance with the Initial Review, the State shall conduct Clearance Testing. Refer to appropriate Article in this Section on Air Monitoring for Clearance Testing standards.
7. Upon written notification from the State that the Work Area has passed the standard for Clearance Testing, the Contractor shall apply the asbestos-free replacement materials, when included in the contract, and re-establish objects and systems as specified in these Specifications.
8. Upon completion of the application of replacement materials, or if no replacement materials are required, after the re-establishment of objects and systems, the Contractor shall notify the State within twenty-four (24) hours, in advance, that the Work Area is ready for Pre-Final Review.
9. Upon notification, the State will review the Work Area. Improper application of the replacement materials, unapproved damage to the facility or its contents or improper re-establishment of objects and systems shall be itemized on a Punch List for correction by the Contractor at his expense. If no deficiencies are discovered, the Contract, or this portion of the Contract, shall be approved in writing by the State as complete. If deficiencies are noted continue with the subsequent procedures. NOTE: If deficiencies noted do not prevent the State from occupancy or proceeding with reconstruction work, the Contract, or this portion of the Contract, shall be specified in writing by the State Substantially Complete.
10. Upon correction of Punch List deficiencies the Contractor shall notify the State in advance that the Work Area is ready for Final Review.
11. Upon notification the State will review the corrected Punch List deficiencies. If all deficiencies have been corrected, the Contract or this portion of the Contract shall be approved in writing by the State as complete. If deficiencies have not been properly corrected, the Contractor shall repeat, at his expense, procedures 10 and 11 until all deficiencies have been corrected and approved. NOTE: If deficiencies noted do not prevent the State from occupancy or proceeding with reconstruction work, the Contract or this portion of the Contract shall be specified in writing by the State Substantially Complete.

1.3.4 ASBESTOS DISPOSAL

- A. Asbestos-Containing Waste Materials shall be packed into approved sealed and labeled protective packaging.
- B. Containers removed from the Holding Area must be removed by Workers who have entered from uncontaminated areas dressed in clean coveralls. Workers must not enter from uncontaminated areas into the Washroom or the Work Area; contaminated Workers must not exit the Work Area through the Equipment Decontamination Enclosure System.

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- C. Contractor shall deliver Asbestos-Containing Waste Materials to the CWRCB permitted and designated Hazardous Waste Disposal Facility in accordance with the guidelines of the EPA.
- D. The Contractor shall notify the State twenty-four (24) hours, in advance, when Asbestos-Containing Waste Materials are to be removed from the site. The State must be present during the removal of Asbestos-Containing Waste Materials from the Work Area. A copy of the Uniform Hazardous Waste Manifest, or other document required by State or Local agencies, shall be submitted to the State for review and signature prior to transporting Asbestos-Containing Waste Materials to the disposal facility.
- E. At the conclusion of Work, the Contractor shall provide evidence (such as a "Bill of Lading" or "Hazardous Waste Manifest") that the Asbestos-Containing Waste Material was disposed of at the CWRCB permitted and approved Hazardous Waste Disposal Facility. The evidence shall be submitted with the final request for payment. The Contractor shall indicate on the "Bill of Lading" or "Hazardous Waste Manifest" the weight, in tons, of the Asbestos-Containing Waste Material generated from the Project. This weight amount must be confirmed by a party independent from the Contractor.
- F. The Contractor shall be responsible for the safe handling and transportation of all Non-Hazardous and/or Hazardous Waste, generated by the Project of this Contract, to the designated Non- Hazardous and/or Hazardous Waste Disposal Facility. The Contractor shall bear all costs for all claims, damages, losses, and clean up expenses against the State, including but not limited to attorney's fees rising out of, or resulting from, Asbestos spills on the site or spills in route to the Hazardous Waste Disposal Facility.
- G. Non-friable Debris Disposal: Roofing, Transite, resilient floor tiles, mastic and other Non-Friable Asbestos-Containing Materials shall be disposed of as non-friable asbestos waste.

1.3.5 AIR MONITORING AND TESTING

- A. Area Air Monitoring:
 - 1. Throughout removal, encapsulation, and cleaning operations, Area Air Monitoring shall be conducted by the State to ensure that the Contractor's engineering controls and work practices are minimizing worker and public exposures to airborne asbestos fibers, in accordance with applicable codes, regulations, and ordinances. Fiber counting shall be done by PCM in accordance with NIOSH Method 7400, with the following as the appropriate sampling areas, volume and number of samples as recommended by the EPA:

<u>Areas to Be Sampled</u>	<u>Minimum Number of Samples</u>	<u>Minimum Volume</u>
Adjacent to Work Area	1/work shift	1200L
 - 2. The State shall report the Area Air Monitoring results to the Contractor on the following day. If Area Air Monitoring results are unsatisfactory, the Contractor shall make changes in his engineering controls and work practices to assure compliance with the following standards. Unsatisfactory results are fiber counts within the Work

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Area in excess of the Maximum Acceptable Level or fiber counts outside the Work Area in excess of the Benchmark.

B. Personal Air Monitoring:

1. Contractor shall conduct initial and periodic eight (8) hours TWA and thirty (30) minute excursion limit air monitoring of Worker exposures to airborne concentrations of Asbestos fibers in accordance with OSHA (CFR 1926.1101) and DOSH (CCR Title 8 Section 1529) requirements.
2. Once OSHA and DOSH sampling requirements are satisfied the Contractor shall conduct, as a requirement of this Contract, not less than one (1) personal air sample, twice per calendar week, to determine 8-hours TWA exposures and thirty (30) minute Excursion Limit exposures of workers operating in each Work Area. Samples shall be collected within the Workers' breathing zones. Samples shall be taken for each ten (10) workers from the time preparation work is started until the Work Area has passed Clearance Testing. NOTE: Contract required personal sampling of each worker is not necessary while the Contractor is conducting representative OSHA and/or DOSH required sampling or when Supplied-Air Respirators in pressure demand mode are in use.
3. The Contractor shall report Personal Monitoring results to the State within 48 hours from the end of the work shift. Worker exposures to airborne Asbestos concentrations shall not exceed the Permissible Exposure Limit (PEL) of 8-hours TWA of 0.1 fibers per cubic centimeter of air, or the 1 f/cc 30 minutes' period Excursion Limit.

C. Clearance Testing:

1. The Contractor should not be released until final visual inspection of the roof regulated area. Since asbestos removal is from the roof, air testing will not be performed using NIOSH Method 7400 PCM analysis in accordance with the guidelines set forth in EPA Document 560/5-85-024 Guidance for Controlling Asbestos-Containing Materials in Buildings.

1.3.6 REIMBURSEMENT OF COSTS

- A. In the event that reviews and/or Clearance Testing by the State or regulatory agencies shows that the Work Area or any portion of the Work Area is not decontaminated or if the Work is not in conformance with the Contract Documents, the State will record all time, tests and project related expenses expended to monitor the Work until the work is in compliance. All time, and expenses recorded by the State to monitor the above work, and all time, tests and project related expenses incurred by the State outside the Project Work Days, Work Hours or Contract Time shall, at the discretion of the State, be paid for by the Contractor. The Contractor, promptly upon receipt of the billing from the State, shall reimburse the State at the normal billing rate of the State, or the State is authorized to withhold funds from the Contract Sum, for all time spent by the State for reviews, testing, and other project related expenses when any of the above conditions occur.

1.3.7 CLEANUP

- A. Contractor shall maintain a clean Project site during and upon completion of the Project. Cleaning shall be in accordance with the General Conditions.

END OF SECTION I

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SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Demolition and removal of selected site elements.
3. Salvage of existing items to be reused or recycled.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- C. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- D. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to The State that may be uncovered during demolition remain the property of the State.
 1. Carefully salvage in a manner to prevent damage and promptly return to the State.

1.4 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
 1. Inspect and discuss condition of construction to be selectively demolished.
 2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

SELECTIVE DEMOLITION

4. Review areas where existing construction is to remain and requires protection.

1.5 INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property. Indicate proposed locations and construction of barriers. Ensure State's on-site operations are uninterrupted.
- B. Schedule of selective demolition activities with starting and ending dates for each activity.
- C. Predemolition photographs or video.

1.6 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.

1.7 FIELD CONDITIONS

- A. The State will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so the State operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by the State as far as practical.
- C. Notify the State of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 1. Hazardous materials will be removed by the State before start of the Work.
 2. If suspected hazardous materials are encountered, do not disturb; immediately notify the State. Hazardous materials will be removed by the State under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 1. Maintain fire-protection facilities in service during selective demolition operations.
- G. Arrange selective demolition schedule so as not to interfere with the State's operations.

1.8 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties. Notify warrantor before proceeding. Existing warranties include the following:

SELECTIVE DEMOLITION

1.9 COORDINATION

- A. Arrange selective demolition schedule so as not to interfere with the State's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSP A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. The State will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. Arrange to shut off utilities with utility companies.
 - 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - c. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.

3.3 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

SELECTIVE DEMOLITION

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
- B. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 5. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 6. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 7. Dispose of demolished items and materials promptly.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 3. Protect items from damage during transport and storage.
 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the State, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

SELECTIVE DEMOLITION

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Roofing: Remove no more existing roofing than what can be covered in one day by new roofing and so that building interior remains watertight and weathertight.
 - 1. Remove existing roof membrane, flashings, copings, and roof accessories.
 - 2. Remove existing roofing system down to substrate.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 41 19

SECTION 02 83 33

REMOVAL AND DISPOSAL OF MATERIAL CONTAINING LEAD PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Minimum requirements for hazardous materials handling, control, and abatement activities, as applicable, including, but not necessarily limited to:

1. Hazardous materials controls.
2. Handling and disposal of lead-containing materials.
3. Demolition associated with access to hazardous materials.
4. Criteria for abatement zone clearance testing.
5. Criteria for re-occupancy clearance.

B. Related Sections

1. Section 02 08 00 – Asbestos Abatement
2. Section 02 26 00 – Existing Conditions – Hazardous Materials Conditions
3. Section 02 80 01 – Hazardous Materials Abatement Workplan.
4. Section 02 82 33 – Removal and Disposal of Asbestos-Containing Materials.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM)

1. E84: "Test Method for Surface Burning Characteristics of Building Materials."
2. E119: "Standard Method for Fire Tests of Building Construction and Materials."

B. American National Standards Institute (ANSI)

1. Z9.2: "Fundamentals Governing the Design and Operation of Local Exhaust Systems."
2. Z41.1: "Men's Safety Toe Footwear."
3. Z86.1: "Commodity Specification for Air."
4. Z87.1: "Practice for Occupational and Educational Eye and Face Protection."
5. Z88.2: "Practices for Respiratory Protection."
6. Z88.6: "Respiratory Protection - Respiratory Use Physical Qualifications for Personnel."
7. Z89.1: "Requirements for Industrial Head Protection."

C. National Fire Protection Association (NFPA)

1. Standard 10: "Fire Extinguishers."
2. Standard 70: "National Electric Code."
3. Standard 701: "Small Scale Fire Test for Flame Resistant Textiles and Films."

D. California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA)

1. Title 8 California Code of Regulations (8 CCR) Section 5144 - Respiratory Protection.
2. Title 8 California Code of Regulations (8 CCR) Section 1532.1 - Construction Lead Standard.
3. Title 8 California Code of Regulations (8 CCR) Section 1670 - Fall Protection.
4. Title 8 California Code of Regulations (8 CCR) Sections 3203 and 1509 - Injury and Illness Prevention Program.

E. U. S. Department of Housing and Urban Development (HUD): Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," referred to as the "HUD Guidelines.

F. California Department of Public Health (CDPH) Title 17, California Code Of Regulations, Division 1, Chapter 8 Accreditation, Certification, and Work Practices For Lead-Based Paint and Lead Hazards.

1.3 DEFINITIONS

A. Abatement: as defined by the CDPH for lead hazards work, includes any set of measures designed to reduce or eliminate lead hazards.

B. Activity Class/Category - Lead: Lead hazard designations assigned to work activities that involve lead-containing materials. Activities that fall into Classes I through III, including as examples the operations defined below, are required to assume the following personal airborne exposure levels, unless otherwise demonstrated.

1. Activity Class I; exposure below five hundred micrograms per cubic meter ($<500 \mu\text{g}/\text{m}^3$).
 - a. Surface clean-up of lead-containing dust or debris less than fifteen thousand micrograms per square foot ($<15,000 \mu/\text{SF}$);
 - b. Spray painting with lead-based paints; Manual demolition of structures (e.g. drywall, plaster, etc.);
 - c. Manual sanding, grinding, needle gunning, chiseling, hammering, wire brushing, milling or scraping of lead-based coatings;
 - d. Heat gun removal of any surface coating; and power tool cleaning with dust collection systems.

2. Activity Class II; exposure greater than five hundred micrograms per cubic meter ($>500 \mu\text{g}/\text{m}^3$) and less than twenty five hundred micrograms per cubic meter ($<2,500 \mu\text{g}/\text{m}^3$).
 - a. Using lead mortar;
 - b. Lead burning;
 - c. Rivet busting;
 - d. Power tool cleaning without dust collection systems;
 - e. Clean-up of dry abrasive; and
 - f. Abrasive blasting enclosure movement and removal
 3. Activity Class III; exposure greater than twenty five hundred micrograms per cubic meter ($>2,500 \mu\text{g}/\text{m}^3$).
 - a. Abrasive blasting of any coated surfaces;
 - b. Welding on any coated surfaces;
 - c. Torching or cutting on any coated surfaces; and
 - d. Torch burning of any coated surfaces.
- C. Certified Lead Worker: includes those who do lead-related construction work activities on a work site under the directions of a Certified Lead Supervisor, including:
1. Removal, disposal or abatement of loose and peeling lead-based paints as defined by HUD, including scraping, demolition or other Cal/OSHA Activity 1 through 3 work as defined above.
 2. Removal or repair of lead plumbing.
 3. Repainting or general construction on surfaces painted with lead-based paints.
 4. Removal, enclosing or covering of lead-contaminated soils.
 5. Note that renovations, remodeling, and painting, work or other activities listed above may be completed by workers satisfying the EPA's RRP training requirements only.
- D. Certified Lead Supervisor: includes those who supervise daily work activities on a lead-related construction site, as well as supervision of repainting or general construction performed on surfaces with lead-based paints where abatement is designed to permanently reduce or eliminate lead hazards for public (non-industrial) buildings or to last more than twenty (20) years. The Certified Lead Supervisor shall oversee the Certified Lead Workers, enforce safe work practices, and schedule and coordinate work site activities with the building occupants and other contractors and consultants.
- E. Containment: as defined by the CDPH Health includes any system process or barrier used to contain lead hazards in a work area, including plastic sheeting, wet scraping, and other lead-safe work practices as described in the HUD Guidelines, Chapter 8.

1.4 SUBMITTALS

A. Lead-Related Work:

1. Submit the following, prior to commencement of the lead-related work:
 - a. Worker documentation, including:
 - 1) Current CDPH Certified Lead Supervisor training certificates.
 - 2) Current lead awareness training certificates – workers.
 - 3) Respiratory fit test records within the past twelve (12) months minimum, or in compliance with 8 CCR 5144.
 - 4) Medical examination approvals for respirator use within the past 12 months, or in compliance with 8 CCR 5144.
 - 5) Blood lead test within past 90 days.
 - b. Abatement Plan prepared by a Certified Lead Supervisor, Certified Lead Project Monitor, or Certified Lead Project Designer including:
 - 1) Detailed lead hazards control and management measures.
 - 2) A detailed description of abatement methods, locations and components where abatement is planned.
 - 3) Instructions to maintain potential lead hazards in safe condition..
 - c. Safety data sheets for chemicals used.
2. Submit the following, in accordance with Section 01 33 00 - Submittals, within five (5) calendar days of the request by the State or within five (5) calendar days of completion of the abatement or hazard control work.
 - a. Updated worker documentation, as needed.
 - b. Contractor periodic personal air-monitoring results.
 - c. Receipt and weight tickets from landfill operator or recycler as applicable.
 - d. Waste profiling data (TCLP, WET, and SW846, as applicable).

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Lead Hazard/Abatement Work: Only qualified persons with CDPH approved Lead Workers training, current medical examinations and approval for the use of respiratory protection, and current fit testing of respirators under the direct supervision of a CDPH approved Lead Abatement Supervisor shall engage in work defined under Cal/OSHA regulation 8 CCR 1532.1 affecting lead-based paints and lead construction hazards, including but not limited to:
 - a. Working in an environment where lead exposures exceed 30 micrograms per cubic meter.
 - b. Abating lead-based paints, including but not limited to abatement of loose and peeling lead-based paints, demolition and disposal of concrete-encased primed structural steel and/or stripping of lead coatings from structural steel prior to torching or welding.

B. Regulatory Requirements: The Contractor shall be alerted to and familiar with the following laws and regulations regarding the hazards, control measures, management, characterizing, transport and disposal of hazardous wastes:

1. Lead Hazard/Abatement Work: All labor, materials, facilities, equipment, services, employees and training, and testing necessary to perform the work required for lead abatement, demolition, decontamination, hazard control, and disposal of waste shall be in accordance with these Specifications and the most current regulations, including but not limited to:
 - a. Environmental Protection Agency National Ambient Air Quality Standards, as applicable (40 CFR 61).
 - b. Occupational Safety and Health Administration (inclusive of OSHA 29 CFR 1926.62, 29 CFR 1926.59, and 29 CFR 1910).
 - c. California Department of Occupational Safety and Health (inclusive of Cal/OSHA 8 CCR 1532.1).
 - d. California Environmental Protection Agency (Cal/EPA), Title 22.
 - e. California Department of Public Health (17 CCR Sections 35001 -36100).
 - f. U.S. Environmental Protection Agency Renovation Repairs & Painting (RR&P Rules)
 - g. Other applicable federal, state, and local governmental regulations pertaining to lead hazards and lead waste.

C. Meetings:

1. Pre-Construction or Pre-Abatement Meeting:
 - a. Prior to any abatement work, the Contractor is to attend a pre-construction meeting to be attended by representatives of the State, the State's Consultants, the Contractor, the Hazardous Materials Abatement Subcontractor, and other Subcontractors whose work may be affected. The meeting agenda shall include the following considerations:

- 1) Review of the Specifications and Plans in detail related to the abatement and hazards work. All conflicts and ambiguities, if any, shall be discussed.
 - 2) Review the project conditions, schedule, construction sequencing, abatement application requirements, and quality of completed work.
 - 3) Review in detail the means of protecting adjoining areas, protect of Contractor's, Subcontractor's, State's workers, and completed work during the abatement activities.
- 4). Pre-job submittals requirements. 5). Site security requirements.
2. Weekly Meetings: At the State's option, abatement projects extending over one week in length may require attendance of the Contractor at a weekly progress meeting. The purpose of this meeting is to review abatement and project scheduling, coordination with other trades, security and site-specific requirements.

1.6 TIME LIMITATION AND DELAY CHARGES

- A. Complete all lead and other hazard work specified in this Section in no more than the allotted calendar days or work shifts as outlined in the Abatement Work Plan or as otherwise specified in the Contract Documents.
1. In the event of failure to complete the Work of this Section within the specified time, the Contractor shall pay liquidated damages in the amount of one thousand dollar (\$1,000.00) per calendar day for each day of delay in completion of work beyond the number of days specified in the Contract Documents. The specified amount of liquidated damages represents the State's estimate of costs which include, but are not limited to, those of the State and the State's Consultants for observations and inspections, daily air monitoring, equipment, transportation, and analysis charges which would be incurred by the State after the number of calendar days specified for completion of the Work of this Section.

PART 2 - PRODUCTS

2.1 LEAD RELATED WORK - MATERIALS AND EQUIPMENT

A. Protective Devices:

1. Polyethylene drop cloths and dust barriers, temporary wash stations or showers, disposable clothing, respirators, gloves, hard hats, and other required items.
2. Respirators shall protect against lead and other appropriate dusts, fumes and mists as approved by:
 - a. The Mine Safety and Health Administration (MSHA).
 - b. The National Institute for Occupational Safety and Health (NIOSH) under provisions of 30 CFR Part 11.

B. Sealants and Polyethylene Sheeting:

1. Polyethylene sheeting shall be flame-retardant and approved and listed by the State Fire Marshal in accordance with Section 13121 and/or 13144.1 of the California Health and Safety Code.

- a. Thickness and Size: 6-mil thick minimum, unless otherwise specified, sized to minimize the frequency of joints.
- b. Flammability: Comply with NFPA Standard 701 with a flame spread rating of no greater than five (<5) and a smoke development rating of no more than seventy (<70) when tested in accordance with ASTM E84 procedures.

C. Sealing Tape shall conform to the following:

- 1. 2-inches or wider, capable of sealing joints of adjacent sheets of polyethylene and attaching polyethylene sheet to finished or unfinished surfaces or similar materials.
 - a. Tape shall be capable of adhering under dry and wet conditions, including use of amended water.
 - b. Preservation Sealing Tape: Type specifically designed for adhering to critical or sensitive surfaces without damage to surface; 3M or equal.
 - c. Spray adhesives shall not contain methylene chloride or methyl chloroform (1,1,1-trichloroethane) compounds.
 - d. Fire resistant sealants shall be compatible with concrete, metals, wood, cable jacketing and other materials capable of preventing fire, smoke, water and toxic fumes from penetrating through sealants.
 - 1) Sealants shall be asbestos free and shall have a flame spread, smoke and fuel contribution of zero.
 - 2) Sealants shall be ASTM -and UL-rated for three (3) hours for standard method of fire test for firestop systems.

D. Provide waste receptacles that meet federal and State regulations.

E. Paint Removers shall conform to the following:

- 1. Non-flammable removing solvents or gels, with a flash point above one hundred and forty degrees Fahrenheit (>140 deg. F.).
- 2. Solvent waste shall not result in the generation of hazardous waste as described under 22 CCR, Division 4.
- 3. Removers shall not contain methylene chloride, halogenated hydrocarbons, or any of the following glycol ethers.

Common Name	Abbrev.	CAS#	Chemical Name
ethylene glycol methyl ether	EGME	109-86-4	2-methoxyethanol
ethylene glycol methyl ether acetate	EGMEA	110-49-6	2-methoxyethyl acetate
ethylene glycol ethyl ether	EGEE	110-80-5	2-ethoxyethanol
ethylene glycol ethyl ether acetate	EGEEA	111-15-9	2-ethoxyethyl acetate
ethylene glycol dimethyl ether	EGDME	110-71-4	1,2 dimethoxyethane
ethylene glycol diethyl ether	EGDEE	629-14-1	1,2 diethoxyethane
diethylene glycol	DEG	111-46-6	2,2 dihydroxyethyl ether
diethylene glycol methyl ether	DEGME	111-77-3	2-(2-methoxyethoxy) ethanol
diethylene glycol ethyl ether	DEGEE	111-90-0	2-(2-ethoxyethoxy) ethanol
diethylene glycol dimethyl ether	DEGDME	111-90-6	bis(2-methoxyethoxy) ether
triethylene glycol dimethyl ether	TEGDME	112-49-2	2,5,8,11 tetraoxadodecane
dipropylene glycol	DPG	110-98-5	2,2 dihydroxyisopropyl ether

F. Cleaning Agents: Cleaning agents, equipment, and methods employed shall not in any way damage the substrate or adjoining surfaces and finishes. Cleaning solvents shall be non-injurious to the surfaces upon which they are applied. The methods used shall cause no pitting, erosion or damages to the surfaces.

1. Do not use chemicals that may attach or leave deposits on the substrate material.
2. Modify the process or processes to suit the finish, hardness, and condition of the surface to be cleaned.

G. Vacuums and negative pressure units shall be HEPA-filtered for clean-up of loose debris and contaminants. Provide DOP testing on-site for all units, unless otherwise noted in the Abatement Work Plan.

2.2 OTHER HAZARDOUS MATERIALS - MATERIAL AND EQUIPMENT

A. Waste Containers:

1. Provide sealable metal drums, 55-gallon capacity containers, with sealable lids. Label the drums in accordance with EPA and DTSC requirements, including the Generator I.D. or location identification and manifest number. Drums shall be air and water tight.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Review the hazardous material report(s) to familiarize oneself with hazardous material locations and conditions, and previous abatement by others, as applicable.
- B. Review site conditions to verify quantities, work zones, available utilities, security, etc.

3.2 PREPARATION

A. Minimum Protective Procedures for Lead-Related Work:

1. Follow, at the minimum, dust control procedures as outlined under Cal/OSHA regulation 8 CCR 1532.1 and CDPH regulation 17 CCR Sections 35001 through 36100.

2. Respiratory Protection: Comply with Cal/OSHA Regulations included in 8 CCR Section 1532.1 and ANSI Standard Z88.2, "Practices for Respiratory Protection."
 - a. Use respirators approved by NIOSH.
 - b. Provide respiratory protection to employees involved with lead-based paint demolition and/or abatement elements or as required for demolition work where employees may be occupationally exposed to lead at or exceeding the Action Level (AL) at no cost to the employees or State.
 - c. Workers shall wear appropriate respiratory protection during lead hazards work, unless initial testing verifies that employee exposures are below the Action Level.
3. Site security to assure that no member of the public is able to gain access to regulated work areas. Maintain access and egress routes at all times.
4. Worker training, respiratory protection, medical examinations, and blood lead monitoring to meet applicable regulations.
5. Activity Class I work areas, as a minimum, with a two (2) stage decontamination assembly, including an equipment and contiguous clean room with bucket wash-up facilities positioned as follows:
 - a. Equipment Room shall have lockers or labeled bags and containers for storing contaminated protective clothing and equipment.
 - b. Clean Room shall have lockers or containers for storing employee's street clothes and personal items. Clean Room shall also contain a suitable supply of potable water to permit each employee to wash his or her hair, hands, forearms, face and neck.
6. Sufficient sets of protective full-body clothing for workers to be worn in designated work area and/or whenever a potential airborne lead hazard exists. Clothing shall include, but not be limited to, full-body coveralls, headgear, eye protection, and gloves. Disposable-type protective clothing, headgear and footwear are acceptable.
7. Full-Body Clothing: Workers shall wear hoods covering their hair in the designated lead hazard work areas at all times.
 - a. Wearing of protective clothing, in lieu of street clothes, outside the work area is not permitted.
 - b. Non-disposable-type protective clothing and footwear shall be left in the Wash Room decontamination assembly for disposal.
 - c. The use of cloth coveralls following the prescribed laundry procedures as identified in 8 CCR, 1532.1 is acceptable.
8. Eye Protection: Eye protection, conforming to ANSI Z87.1 shall be worn at all times within the lead hazard areas.

9. Head Protection: Hard hats or other head protection as required by applicable safety regulations and conforming to ANSI Z89.1, Class A or B.
10. Foot Protection: Construction workers shall use non-skid footwear conforming to ANSI Z41.1, Class 75.

B. Site Protective Controls:

1. Protect against unnecessary disturbances or damages to sensitive finishes or furnishings that will remain within the facility.
2. Locate temporary scaffolding and containment barriers, as required, and proceed with the construction or demolition, allowing for continued operation of any adjacent occupied areas, as applicable.
3. Protect existing furnishings and building finishes from water, lead dusts, or chemical strippers.
4. Erect temporary protective covers over pedestrian walkways and at points of passage for persons or vehicles that are to remain operational during the lead hazard work.
5. Exterior lead hazard operations shall utilize mini-containments, drop cloths, wet methods, and HEPA vacuums as outlined in Cal/OSHA regulation 8 CCR Section 1532.1 and the HUD Guidelines, Chapter 8.
6. The State may evaluate the lead dust concentrations outside the work area on adjoining finishes during the work progress by collecting wipe samples to evaluate the integrity of the containment and to detect dust contamination.
7. Evaluation will review possible contamination resulting from:
 - a. Failure to adequately cordon off or contain work area dusts, clean-up debris, and use approved work practices, such as wet wiping and HEPA vacuuming.
 - b. Failure or breaches in the work area isolation containment.
 - c. Failure or rupture in the negative pressurization/HEPA filtration system.
 - d. Incomplete decontamination of personnel or equipment removed from the work area(s).
8. Perimeter wipe samples may be collected adjacent to each work area and compared to the pre-construction background concentrations. The State will analyze the wipe sample by Inductively-coupled plasma (ICP) per NIOSH Method 7300.
9. The Contractor shall reclean adjoining occupied areas with surface concentrations exceeding background level or eight hundred micrograms per square foot ($>800 \mu\text{g}/\text{SF}$) during the construction activities. The Contractor shall bear the costs (including engineering, administrative, housekeeping, analytical and the labor and materials costs of the State's consultant(s)) to return surface lead concentrations in elevated areas to acceptable levels.

3.3 LEAD ABATEMENT AND HAZARD CONTROL

- A. Notifications: Cordon off active lead hazard and abatement zone(s) and post with warning signs at entries to regulated areas bearing the following information:

WARNING LEAD WORK AREA

POISON

NO SMOKING OR EATING AUTHORIZED PERSONNEL ONLY

- B. Procedures:

1. Abatement of lead-based paints and presumed lead-based paints as defined by HUD and as regulated under the California Department of Public Health's Title 17, California Code of Regulations (CCR), Division 1, Chapter 8, "Accreditation, Certification, and Work Practices in Lead-Related Construction," Article 1, Sections 35001 et al, and Article 16, Sections 36000 and 36100 shall:
 - a. Be conducted only by a Certified Lead Supervisor or a Certified Lead Worker. The Certified Lead Supervisor shall be on-site during all work site preparation and during the post-abatement clean-up of work areas. At all other times when abatement is conducted, the Certified Lead Supervisor shall be on-site or available by telephone, pager or answering service, and able to be present at the work area in no more than two (<2) hours.
 - b. Be conducted using containment in a manner such as not to contaminate non-work areas with lead dust, soil, or paint debris.
 - c. Be conducted in accordance with procedures specified in the HUD Guidelines, Chapters 11 and 12.

- C. Loose and Peeling Paint:

1. Scrape loose and peeling paints using dust control procedures and procedures as outlined under Cal/OSHA Regulation 8 CCR 1532.1.
2. Characterize the waste for possible disposal as a hazardous waste.

- D. Lead Paint Abatement:

1. Remove paints on structural steel components scheduled for welding or torching using a chemical stripper, needle gun or other approved methods as outlined in the approved Contractor's Hazardous Materials Management Plan (HMMP). Note that spot abatement of structural steel components does not eliminate the possible need for respiratory protection and hazard controls by the welder or torcher under 8 CCR 1529 due to unabated residues or paints on back-to-back components, which cannot be accessed for abatement.
2. Use drop cloths, polyethylene barriers, Hudson and airless sprayers and other methods as required for dust control.
3. Characterize and dispose of paints, rags, etc., separately for possible disposal as a hazardous waste.

E. Lead Hazard Clean up:

1. Clean-up background or construction-related dusts from demolition of lead-coated elements or other contaminant sources using wet methods and HEPA-filtered vacuums.
2. Do not dry sweep.

F. Lead Hazard Control:

1. Scrape loose and peeling paints and use dust controls for demolition of lead-coated architectural and structural elements as indicated by the Demolition or Renovation Plans, following minimum procedures as outlined under Cal/OSHA Regulation 8 CCR 1532.1.
2. Remove and dispose of intact lead-coated architectural and structural elements as non-hazardous waste.
3. HEPA vacuum residual debris and wet wipe affected substrates as required for clearance inspection or testing.

G. Special Procedures and Techniques:

1. Cordon off the proximity (within approximately 20 feet) of Activity Class I work areas using construction tape, polyethylene dust barriers, or other appropriate means.
 - a. Persons entering the regulated "cordoned" work area shall wear appropriate respiratory protection and full body coveralls.
 - b. Affix appropriate warning signs at the entry and approaches to the regulated area(s).
2. Lockout electrical and HVAC equipment within the regulated area as necessary.
3. Protect floors, furnishings, landscaping, and other items with polyethylene drop cloths or other acceptable means to prevent contamination or damage to other building surfaces and finishes.
4. Apply chemical strippers and scrape following the manufacturer's recommended procedures. After scraping, remove remaining loose paint with a HEPA vacuum.
5. Maintain work area surfaces as free as practicable from accumulated dust or debris. Clean equipment, tools and containment structures within regulated areas, at a minimum, with HEPA vacuums or wet methods.
6. Conduct operations to prevent injury to adjoining facilities, persons, motor vehicles, and other items as applicable.
 - a. Prevent chemical cleaning agents from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other items and other surfaces that could be injured or damaged by such contact.
 - b. Do not spray or scrape outdoors during winds of sufficient force to spread cleaning agents to unprotected surfaces.

7. For areas where removal of loose and peeling paints only are required, the Contractor shall ensure that the paint that remains on walls, ceilings, eaves, and other surfaces in areas of active work, as applicable, shall be adhered to the substrate sufficiently to support eventual repainting. Paints that peel or loosen during wetting will become part of the scope of work scheduled for removal and disposal.
8. Where complete removal of lead coats is required, finished work shall show no signs of stains, scratches, streaks, or runs of discoloration from use of cleaners.
 - a. Leave substrate surfaces neat and clean, including removal of primers in addition to finish coats. Surfaces shall be uniformly cleaned.
 - b. Neutralize substrate using a TSP and detergent wash.
9. Where mechanical sanding or removal of lead-based paints is required, the Contractor shall fully contain the work area, establish negative pressurization of the contained zone, and attach HEPA-filtration devices to all mechanical tools. Upgrades in respiratory protection shall be provided as required under 8 CCR 1532.1.
10. Avoid direct welding or cutting on surfaces containing lead in concentrations greater than 0.64 micrograms/cm² by mechanically or chemically removing the coating to a distance of at least six inches from the point at which heat is applied.
 - a. If surface coatings are not removed prior to welding or cutting, provide local exhaust ventilation to capture the aerosolized lead, using HEPA filters.
 - b. If surface coatings are not removed prior to torching or welding, provide upgraded welder's respiratory protection in compliance with Cal/OSHA regulation 8 CCR 1532.1.
11. Where mechanical removal of surface coatings constitutes a Level II activity, provide power tools, to the extent feasible, with local HEPA exhaust or dust collector systems to capture the aerosolized lead.

H. Demolition Procedures:

1. Removal of obstructing materials as needed for access to hazardous materials.
2. Removal of obstructing materials where hazardous materials contamination is known to exist.
3. Removal of obstructing materials where hazardous materials exposure is likely to result.
4. Follow, at the minimum, the protective procedures as outlined in Cal/OSHA regulation 8 CCR 1532.1.
5. Protection of Visitors and Other Site Personnel: Cordon off the abatement area(s) with appropriate signs, and provide temporary tunneling or scaffolding, as applicable.
6. Respiratory Protection: Comply with Cal/OSHA Regulation 8 CCR Section 1529 and ANSI Standard Z88.2, "Practices for Respiratory Protection." Use respirators approved by NIOSH.

I. Prohibited Activities:

1. Workers shall decontaminate themselves and appropriate equipment prior to eating, drinking and smoking.
2. Clean debris and surfaces with HEPA-filtered vacuums or wet methods.
3. Shoveling, wet sweeping, and brushing may be used only where vacuuming or other equally effective methods have been tried and are found to be ineffective.

J. Field Quality Control

1. Site Test: Monitoring and Clearance by the State:

- a. During lead hazard-related work, such as demolition, refinishing, or torching and welding activities, the State may collect air samples for analysis by flame atomic absorption.
- b. Air sampling results in excess of the Cal/OSHA "Project Action Level" of thirty micrograms per cubic meter (30 µg/m³) within the construction zone may require isolation of the work area, upgrades in the required respiratory protection, amendment of work procedures, and/or clean-up of the affected area.
- c. Air sampling results in excess of the EPA's National Ambient Air Quality Standard (NAAQS) of one and one-half micrograms per cubic meter (1.5 µg/m³) at the site's property line or at adjoining occupied non-construction areas may require isolation of the work area, amendment of work procedures, and clean-up of the affected area.
- d. Resampling of the contaminated areas and handling, shipping, and analysis charges (including the State's time and expenses) for additional sampling required to show background levels below these lead standards shall be borne by the Contractor.

K. Clearance Criteria - Lead Abatement Zones:

1. The lead abatement zone shall remain secured until cleared by the State.
2. Visual Inspection:
 - a. When the Contractor considers the work or a designated portion of the work to be complete, the Contractor shall notify the State's Project Manager that the work is ready for abatement zone clearance inspection.
 - b. Within a reasonable time after receiving notification from the Contractor, the State will perform a visual inspection of the work area.
 - c. Evidence of lead contamination identified during the inspection will necessitate further cleaning as specified herein.
3. Wipe Sample Clearance Criteria: The Contractor shall reclean the area if surface concentrations exceed the following "Title 17 Lead Contaminated Dusts Definitions":

40 micrograms/ft ²	for interior floors
250 micrograms/ft ²	for other horizontal surfaces
400 micrograms/ft ²	for exterior floor and exterior horizontal surfaces

4. Air Sample Clearance: Where lead hazard abatement occur concurrent with asbestos abatement activities, the area may be cleared by aggressive air sampling, where airborne lead concentrations following the final visual inspection shall not exceed the EPA's NAAQS standard of one and one-half micrograms per cubic meter (1.5 µg/m³) as analyzed by NIOSH method 7082 (flame atomic absorption) or 7300 (ICP).
5. Resampling of the contaminated areas and handling, shipping, analysis charges (including the State's time and expenses) for additional sampling required to show background levels below these lead standards shall be borne by the Contractor.

L. Waste Disposal and Manifesting:

1. Comply with current federal, State and local regulations concerning the waste handling, containerization, transportation, and disposal of lead-based paint or lead-contaminated materials as discussed under "Waste Disposal and Manifesting" below.
2. Loose debris and scraped materials shall be treated as hazardous waste, unless otherwise approved by the State. Construction waste coated with intact lead-containing paint may be disposed of as construction debris in accordance with the Cal/EPA requirements.
3. Laboratory costs associated with analyses required for disposal, if required, shall be at the Contractor's expense.
4. Segregate, containerize, and characterize construction debris including rags, protective coveralls, polyethylene sheeting, and other consumable items. Waste shall be packaged in accordance with the applicable U. S. Department of Transportation regulations included in 49 CFR Parts 173, 178 and 179.
5. Profile waste with an approved landfill or incinerator by means of standard digestion and extraction tests (TCLP, WET, and SW846), as appropriate. Use the facility's EPA Generator

I.D. number on the "Waste Manifest." See additional requirements specified below in Article titled "Manifesting."

6. If debris is to be recycled, provide a bill of lading and a memorandum from the recycler acknowledging that lead may be present and work activities and disposal will comply with applicable regulations.

3.4 WASTE DISPOSAL AND MANIFESTING

A. Hazardous Waste Disposal:

1. Packing, labeling, transporting, and disposing of hazardous waste shall comply with Cal/EPA regulations under 22 CCR, including completion of the Uniform Hazardous Waste Manifest Form (DTSC 8022A and EPA 8700-22). Waste bags shall be properly labeled prior to their removal from the contained or regulated area, including all required warning labels.
2. Waste dumpsters shall be placarded, sealed, and locked overnight. Waste containers shall be

stored to prevent public access or disturbances.

3. A "Waste Manifest" shall be completed for disposal of hazardous waste. The transporter shall possess a valid EPA Transporter I.D. number. The Contractor shall notify the State's Project Manager at least forty eight (48) hours prior to the time that the Manifest is required to be signed by the State.
4. Applicable information to be included in the "Waste Manifest" includes the following:
 - a. EPA Generator I.D. Number: Verify with the Project Manager.
 - b. Generator's Name and Address: Verify with the State's Project Manager.
 - c. Generator Tax I.D. Number: Verify with the State's Project Manager.

END OF SECTION 02 83 33

SECTION 05 12 00
STRUCTURAL STEEL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Structural steel.
2. Shrinkage-resistant grout.

1.2 DEFINITIONS

- A. Structural Steel: Elements of the structural frame indicated on Drawings and as described in ANSI/AISC 303.

1.3 COORDINATION

- A. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

1.4 ACTION SUBMITTALS

A. Product Data:

1. Structural-steel materials.
2. High-strength, bolt-nut-washer assemblies.
3. Anchor rods.
4. Threaded rods.
5. Forged-steel hardware.
6. Galvanized-steel primer.
7. Etching cleaner.
8. Galvanized repair paint.
9. Shrinkage-resistant grout.

B. Shop Drawings: Show fabrication of structural-steel components.

1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
2. Include embedment Drawings.
3. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical, high-strength bolted connections.
4. Identify members and connections of the seismic-load-resisting system.

STRUCTURAL STEEL FRAMING

5. Identify members not to be shop primed.
- C. Welding Procedure Specifications (WPSs) and Procedure Qualification Records (PQRs): Provide in accordance with AWS D1.1/D1.1M for each welded joint qualified by testing, including the following:
1. Power source (constant current or constant voltage).
 2. Electrode manufacturer and trade name, for demand-critical welds.
 3. Least anticipated service temperature: 20 degrees F.

1.5 INFORMATIONAL SUBMITTALS

- A. Mill test reports for structural-steel materials, including chemical and physical properties.
- B. Product Test Reports: For the following:
1. Bolts, nuts, and washers, including mechanical properties and chemical analysis.
- C. Survey of existing conditions.
- D. Source quality-control reports.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from corrosion and deterioration.
1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.
- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
1. Fasteners may be repackaged provided Owner's testing and inspecting agency observes repackaging and seals containers.
 2. Clean and relubricate bolts and nuts that become dry or rusty before use.
 3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F3125/F3125M, Grade F1852 bolt assemblies and for retesting bolt assemblies after lubrication.

PART 2 - PRODUCTS

2.1 STRUCTURAL-STEEL MATERIALS

- A. W-Shapes: ASTM A992/A992M.
- B. Channels, Angles: ASTM A36/A36M.
- C. Plate and Bar: ASTM A36/A36M.
- D. Plate and Bar to receive DCW weld: ASTM A992/A992M.
- E. Cold-Formed Hollow Structural Sections: ASTM A500/A500M, Grade B structural tubing.
- F. Steel Pipe: ASTM A53/A53M, Type E or Type S, Grade B.
 - 1. Finish: Black except where indicated to be galvanized.
- G. Welding Electrodes: Comply with AWS requirements.

2.2 BOLTS AND CONNECTORS

- A. High-Strength A325 Bolts, Nuts, and Washers: ASTM F3125/F3125M, Grade A325, Type 1, heavy-hex steel structural bolts; ASTM A563, Grade DH, heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers; all with plain finish.
 - 1. Direct-Tension Indicators: ASTM F959/F959M, Type 325-1, compressible-washer type with plain finish.
- B. Zinc-Coated High-Strength A325 Bolts, Nuts, and Washers: ASTM F3125/F3125M, Grade A325, Type 1, heavy-hex steel structural bolts; ASTM A563, Grade DH, heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers.
 - 1. Finish: Hot-dip or mechanically deposited zinc coating.
 - 2. Direct-Tension Indicators: ASTM F959/F959M, Type 325-1, compressible-washer type with mechanically deposited zinc coating finish.
- C. Tension-Control, High-Strength Bolt-Nut-Washer Assemblies: ASTM F3125/F3125M, Grade F1852, Type 1, round head assemblies, consisting of steel structural bolts with splined ends; ASTM A563, Grade DH, heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers.
 - 1. Finish: Plain.
- D. Carbon Steel ASTM A307 Bolts with associated nuts and washers per plans.

2.3 RODS

- A. Headed Anchor Rods: ASTM F1554, Grade 55, weldable, straight.
 - 1. Nuts: ASTM A563 hex carbon steel.
 - 2. Plate Washers: ASTM A36/A36M carbon steel.
 - 3. Washers: ASTM F436, Type 1, hardened carbon steel.
 - 4. Finish: Plain.
- B. Threaded Rods: ASTM A36/A36M.
 - 1. Nuts: ASTM A63 hex carbon steel.
 - 2. Washers: ASTM A36/A36M carbon steel.
 - 3. Finish: Plain or Hot-dip zinc coating, ASTM A153/A153M, Class C Mechanically deposited zinc coating, ASTM B695, Class 50 as noted.

2.4 PRIMER

- A. Steel Primer:
 - 1. SSPC-Paint 23, latex primer.
 - 2. Fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.
- B. Galvanized-Steel Primer: MPI#26.
 - 1. Etching Cleaner: MPI#25, for galvanized steel.
 - 2. Galvanizing Repair Paint: MPI#18, MPI#19, or SSPC-Paint 20.

2.5 SHRINKAGE-RESISTANT GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C1107/C1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

2.6 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate in accordance with ANSI/AISC 303 and to ANSI/AISC 360.
 - 1. Camber structural-steel members where indicated.
 - 2. Fabricate beams with rolling camber up.
 - 3. Identify high-strength structural steel in accordance with ASTM A6/A6M and maintain markings until structural-steel framing has been erected.
 - 4. Mark and match-mark materials for field assembly.
 - 5. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.
- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.

1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1/D1.1M.
- C. Bolt Holes: Cut, drill, mechanically thermal cut, or punch standard bolt holes perpendicular to metal surfaces.
- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- E. Cleaning: Clean and prepare steel surfaces that are to remain unpainted in accordance with SSPC-SP 2.
- F. Shear Stud Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Weld using automatic end welding of headed-stud shear connectors in accordance with AWS D1.1/D1.1M and manufacturer's written instructions.

2.7 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for type of bolt and type of joint specified.
 1. Joint Type: Pretensioned unless noted Slip critical..
- B. Weld Connections: Comply with AWS D1.1/D1.1M and AWS D1.8/D1.8M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
 1. Assemble and weld built-up sections by methods that maintain true alignment of axes without exceeding tolerances in ANSI/AISC 303 for mill material.

2.8 GALVANIZING

- A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel in accordance with ASTM A123/A123M.
 1. Fill vent and drain holes that are exposed in the finished Work unless they function as weep holes, by plugging with zinc solder and filing off smooth.

2.9 SOURCE QUALITY CONTROL

- A. Testing Agency: State will engage a qualified testing agency to perform shop tests and inspections.
 1. Allow testing agency access to places where structural-steel work is being fabricated or produced to perform tests and inspections.
 2. Bolted Connections: Inspect shop-bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."

3. Welded Connections: Visually inspect shop-welded connections in accordance with AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
 - a. Liquid Penetrant Inspection: ASTM E165/E165M.
 - b. Magnetic Particle Inspection: ASTM E709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
 - c. Ultrasonic Inspection: ASTM E164.
 - d. Radiographic Inspection: ASTM E94/E94M.
4. In addition to visual inspection, test and inspect shop-welded shear stud connectors in accordance with requirements in AWS D1.1/D1.1M for stud welding and as follows:
 - a. Perform bend tests if visual inspections reveal either a less-than-continuous 360-degree flash or welding repairs to any shear stud connector.
 - b. Conduct tests in accordance with requirements in AWS D1.1/D1.1M on additional shear stud connectors if weld fracture occurs on shear stud connectors already tested.
5. Prepare test and inspection reports.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify, with certified steel erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.
 1. Prepare a certified survey of existing conditions. Include bearing surfaces, anchor rods, bearing plates, and other embedments showing dimensions, locations, angles, and elevations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated on Drawings.

1. Do not remove temporary shoring supporting composite deck construction and structural-steel framing until cast-in-place concrete has attained its design compressive strength.

3.3 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and in accordance with ANSI/AISC 303 and ANSI/AISC 360.
- B. Baseplates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials and roughen surfaces prior to setting plates. Clean bottom surface of plates.
 1. Set plates for structural members on wedges, shims, or setting nuts as required.
 2. Weld plate washers to top of baseplate.
 3. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
 4. Promptly pack shrinkage-resistant grout solidly between bearing surfaces and plates, so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for grouting.
- C. Maintain erection tolerances of structural steel within ANSI/AISC 303.
- D. Align and adjust various members that form part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that are in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
 1. Level and plumb individual members of structure. Slope roof framing members to slopes indicated on Drawings.
 2. Make allowances for difference between temperature at time of erection and mean temperature when structure is completed and in service.
- E. Splice members only where indicated.
- F. Do not use thermal cutting during erection.
- G. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

3.4 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt and joint type specified.
 1. Joint Type: Pretensioned unless noted Slip critical.

- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
 - 1. Comply with ANSI/AISC 303 and ANSI/AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.
- C. Shear Stud Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Weld using end welding of headed-stud shear connectors in accordance with AWS D1.1/D1.1M and manufacturer's written instructions.

3.5 REPAIR

- A. Galvanized Surfaces: Clean areas where galvanizing is damaged or missing, and repair galvanizing to comply with ASTM A780/A780M.
- B. Touchup Priming: Cleaning and touchup priming are specified in Section 09 96 00 "High-Performance Coatings."

3.6 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a special inspector to perform the following special inspections:
 - 1. Verify structural-steel materials and inspect steel frame joint details.
 - 2. Verify weld materials and inspect welds.
 - 3. Verify connection materials and inspect high-strength bolted connections.
- B. Testing Agency: State will engage a qualified testing agency to perform tests and inspections.
 - 1. Bolted Connections: Inspect bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."
 - 2. Welded Connections: Visually inspect field welds in accordance with AWS D1.1/D1.1M.
 - a. In addition to visual inspection, test and inspect field welds in accordance with AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
 - 1) Liquid Penetrant Inspection: ASTM E165/E165M.
 - 2) Magnetic Particle Inspection: ASTM E709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
 - 3) Ultrasonic Inspection: ASTM E164.
 - 4) Radiographic Inspection: ASTM E94/E94M.

3. Shear Stud Connectors: In addition to visual inspection, test and inspect field-welded shear connectors according to requirements in AWS D1.1/D1.1M for stud welding and as follows:
 - a. Perform bend tests if visual inspections reveal either a less-than-continuous 360-degree flash or welding repairs to any shear connector.
 - b. Conduct tests according to requirements in AWS D1.1/D1.1M on additional shear connectors if weld fracture occurs on shear connectors already tested.

END OF SECTION 05 12 00

SECTION 05 50 00
METAL FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal ladders

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Fasteners.
2. Manufactured Steel Ladders.

B. Shop Drawings: Show fabrication and installation details. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

C. Delegated-Design Submittal: For ladders, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer to design ladders.

B. Structural Performance of Steel Ladders: Ladders shall withstand the effects of loads and stresses within limits and under conditions specified in ANSI A14.3. and Cal OSHA Industrial Safety Orders, Title 8, Section 3277.

2.2 METALS

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

B. Steel Plates, Shapes, and Bars: ASTM A36/A36M.

C. Steel Tubing: ASTM A500/A500M, cold-formed steel tubing.

D. Steel Pipe: ASTM A53/A53M, Standard Weight (Schedule 40) unless otherwise indicated.

2.3 FASTENERS

- A. General: Unless otherwise indicated, provide Type 304 stainless steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B633 or ASTM F1941/F1941M, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.

2.4 MISCELLANEOUS MATERIALS

- A. Shop Primer for Galvanized Steel: Primer formulated for exterior use over zinc-coated metal and compatible with finish paint systems indicated.
- B. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- C. Provide anti seize agent for all stainless steel fasteners supplied to project.

2.5 FABRICATION, GENERAL

- A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
- D. Form exposed work with accurate angles and surfaces and straight edges.
- E. Weld corners and seams continuously to comply with the following:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing.
- F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.
- G. Fabricate seams and other connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

2.6 LADDERS

A. General:

1. Comply with ANSI A14.3 and CalOSHA Industrial Safety Orders, Title 8, Section 3277.

B. Steel Ladders:

1. Space siderails 16 inches apart at rungs, and 18 inches apart at extensions above upper roof, unless otherwise indicated.
2. Siderails: Continuous, 3/8-by-2-1/2-inch steel flat bars, with eased edges.
3. Rungs: 1 1/4-inch-square, steel bars.
4. Fit rungs in centerline of siderails; plug-weld and grind smooth on outer rail faces.
5. Provide nonslip surfaces on top of each rung.

C. Steel Ladders:

1. Subject to compliance with requirements, provide products by one of the following:
 - a. Cotterman Standard Fixed Steel Ladder
 - b. Tri-Arc
 - c. FS Industries.
 - d. Approved Equal.
2. Space siderails 16 inches apart at rungs and 18 inches apart at extensions above upper roof, unless otherwise indicated.
3. Side railings shall extend not less than 30 inches (762 mm) above the roof or parapet wall.
4. Siderails: Continuous tubes, not less than 2-1/2 inches deep, 3/4 inch wide, and 1/8 inch thick. Rungs: Steel tubes, not less than 3/4 inch deep and not less than 1/8 inch thick, with ribbed tread surfaces. Rungs spacing shall not exceed 12 inches (305 mm) on center, and each rung shall be capable of supporting a 300 pound (136.1 kg) load.
5. Landings shall not exceed 18 feet (5486 mm) apart measured from the finished grade.
6. Toe space shall be not less than 6 inches (152 mm) Rungs spacing shall not exceed 12 inches (305mm) on center, and each rung shall be capable of supporting a 300 pound (136.1 kg) load and Toe space shall be not less than 6 inches (152 mm)

2.7 GENERAL FINISH REQUIREMENTS

- A. Finish metal fabrications after assembly, powder coated steel ladder required. Standard color from approved manufacturer. Epoxy base coat with polyester finish coat manufacturers standard grey RAL 7004 or equal.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
- B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- C. Field Welding: Comply with the following requirements:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

3.2 REPAIRS

- A. Touchup Painting:
 - 1. Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 - 2. Contractor must obtain touch up paint from the powder coating shop to be compatible over powder base coat.
 - 3. Removing all mill scale and oil from existing steel surfaces before painting.

END OF SECTION 05 50 00

METAL FABRICATIONS

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SECTION 06 10 00
ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Framing with dimension lumber.
2. Rooftop equipment bases and support curbs.
3. Wood blocking, cants, and nailers.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product.

1.3 INFORMATIONAL SUBMITTALS

- A. Evaluation Reports: For the following, from ICC-ES:

1. Wood-preserved-treated wood.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect wood products from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: Comply with DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.

- B. Maximum Moisture Content of Lumber:

1. Boards: 19 percent.
2. Dimension Lumber: 19 percent for 2-inch nominal thickness or less; no limit for more than 2-inch nominal thickness unless otherwise indicated.

2.2 DEFINITIONS

- A. Boards or Strips: Lumber of less than 2 inches nominal (38 mm actual) size in least dimension.
- B. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) size or greater but less than 5 inches nominal (114 mm actual) size in least dimension.
- C. Exposed Framing: Framing not concealed by other construction.
- D. OSB: Oriented strand board.
- E. Timber: Lumber of 5 inches nominal (114 mm actual) size or greater in least dimension.
- F. Lumber grading agencies, and abbreviations used to reference them, include the following:
 - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
 - 2. NLGA: National Lumber Grades Authority.
 - 3. SPIB: The Southern Pine Inspection Bureau.
 - 4. WCLIB: West Coast Lumber Inspection Bureau.
 - 5. WWPA: Western Wood Products Association.

2.3 PRESERVATIVE TREATMENT

- A. Preservative Treatment by Pressure Process: AWP A U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.
 - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
 - 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 - 2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
 - 3. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.

2.4 DIMENSION LUMBER FRAMING

- A. Framing: No. 2 grade.
 - 1. Application: Framing.
 - 2. Species:

- a. Hem-fir (north); NLGA.
- b. Southern pine or mixed southern pine; SPIB.
- c. Spruce-pine-fir; NLGA.
- d. Hem-fir; WCLIB, or WWPA.
- e. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

2.5 MISCELLANEOUS LUMBER

- A. Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 - 1. Blocking.
 - 2. Nailers.
 - 3. Rooftop equipment bases and support curbs.
 - 4. Cants.
- B. Dimension Lumber Items: Construction or No. 2 grade lumber of any species.
- C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
- D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.
- E. For furring strips for installing plywood or hardboard paneling, select boards with no knots capable of producing bent-over nails and damage to paneling.

2.6 FASTENERS

- A. General: Fasteners shall be of size and type indicated and shall comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.
 - 1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M or ASTM F2329.
 - 2. For pressure-preservative-treated wood, use stainless steel fasteners.
 - 3. For redwood, use hot-dip galvanized-steel fasteners.
- B. Nails, Brads, and Staples: ASTM F1667.
- C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

2.7 METAL FRAMING ANCHORS

- A. Allowable design loads, as published by manufacturer, shall meet or exceed those indicated of basis-of-design products. Manufacturer's published values shall be determined from empirical

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data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency. Framing anchors shall be punched for fasteners adequate to withstand same loads as framing anchors.

- B. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 coating designation.
 - 1. Use for interior locations unless otherwise indicated.
- C. Hot-Dip, Heavy-Galvanized Steel Sheet: ASTM A653/A653M; structural steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G185 coating designation; and not less than 0.036 inch thick.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
- C. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
 - 1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches o.c.
- E. Sort and select lumber so that natural characteristics do not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- F. Comply with AWWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
 - 1. Use inorganic boron for items that are continuously protected from liquid water.
 - 2. Use copper naphthenate for items not continuously protected from liquid water.
- G. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- H. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code (IBC).

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2. TABLE 2304. FASTENING SCHEDULE. CBC 2019
3. Table R602.3(1), "Fastener Schedule for Structural Members, 2019 CBC

- I. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 INSTALLATION OF WOOD BLOCKING AND NAILERS

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

3.3 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 06 10 00

SECTION 07 01 50.19

PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Full tear-off of entire roof.
2. Re-cover preparation of entire roof area.
3. Removal of flashings and counterflashings.

1.2 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.
- B. Full Roof Tear-Off: Removal of existing roofing system from deck.
- C. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.
- D. Conveyance: Controlled means of moving materials to and from the rooftop.

1.3 INFORMATIONAL SUBMITTALS

- A. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations. Submit before Work begins.
- B. Landfill Records: Indicate receipt and acceptance of demolished roofing materials and hazardous wastes, such as asbestos-containing materials, by a landfill facility licensed to accept them.

1.4 PREINSTALLATION MEETINGS

- A. Preliminary Roofing Conference: Before starting removal Work, conduct conference at Project site.
 1. Meet with State Representative, roofing installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
 2. Review methods and procedures related to roofing tear-off, including, but not limited to, the following:
 - a. Reroofing preparation, including roofing system manufacturer's written instructions.
 - b. Temporary protection requirements for existing roofing system components that are to remain.

PREPARATION FOR REROOFING

- c. Existing roof drains. and roof drainage during each stage of reroofing, and roof-drain plugging and plug removal.
- d. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to avoid delays.
- e. Existing roof deck conditions requiring notification to the State.
- f. Existing roof deck removal procedures and notifications procedures.
- g. Condition and acceptability of existing roof deck and base flashing substrate for reuse.
- h. Structural loading limitations of roof deck during reroofing.
- i. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that affect reroofing.
- j. HVAC shutdown and sealing of air intakes.
- k. Shutdown of fire-suppression, -protection, and -alarm and -detection systems.
- l. Asbestos removal and discovery of asbestos-containing materials.
- m. Governing regulations and requirements for insurance and certificates if applicable.
- n. Existing conditions that may require notification to the State before proceeding.

1.5 FIELD CONDITIONS

- A. Existing Roofing System: Existing PVC and built up roofing over tapered insulation, over concrete deck at upper roof and metal deck over joists at lower roof. Contractor is responsible to field verify all conditions.
- B. The State will occupy portions of the building immediately below reroofing area
 - 1. Conduct reroofing so the State operations are not disrupted.
 - 2. Provide the State with not less than 72 hours' notice of activities that may affect the State's operations.
 - 3. Coordinate work activities daily with the State so the State can place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
 - 4. Before working over structurally impaired areas of deck, notify the State to evacuate occupants from below affected area. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.
- C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- E. Conditions existing at time of inspector for bidding will be maintained by the state as far as practical.
- F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

PART 2 - PRODUCTS

2.1 INFILL AND REPLACEMENT MATERIALS

- A. Use infill materials matching existing roofing system materials unless otherwise indicated.
- B. Fasteners: Factory-coated steel fasteners acceptable to new roofing system manufacturer.

2.2 AUXILIARY REROOFING MATERIALS

- A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of existing and new roofing system.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate with the State Representative to shut off rooftop utilities and service piping before beginning the Work.
- B. Coordinate with the State to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- C. Test existing roof drains to verify that they are not blocked or restricted.
 - 1. Immediately notify the State of any blockages or restrictions.
 - 2. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
 - 3. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding.
 - a. Do not permit water to enter into or under existing roofing system components that are to remain.
- D. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

3.2 ROOF TEAR-OFF

- A. General: Notify the State each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.
- B. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.

- C. Full Roof Tear-Off: Remove existing roofing and other roofing system components down to the concrete or metal deck.
 - 1. Remove vapor retarder roof insulation and cover board.
 - 2. Remove base flashings and counter flashings as required for the Work.
 - 3. Remove perimeter edge flashing and gravel stops as required for the Work.
 - 4. Remove copings as required for the Work.
 - 5. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations, as required for the Work.
 - 6. Remove roof drains indicated on Drawings to be removed.
 - 7. Remove wood blocking, curbs, and nailers as required for the Work.
 - 8. Remove excess asphalt from steel deck. A maximum of 15 lb/100 sq. ft. of asphalt is permitted to remain on steel decks.
 - 9. Remove fasteners from deck as required for work.

3.3 DECK PREPARATION

- A. Inspect metal deck, plywood, and concrete after tear-off of roofing system.
- B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify the State. Do not proceed with installation until directed by the State.
- C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify the State. Do not proceed with installation until directed by the State.

3.4 INFILL MATERIALS INSTALLATION

- A. Immediately after roof tear-off, and inspection and repair, if needed, of deck, fill in tear-off areas to match existing roofing system construction.
- B. Install new roofing patch over roof infill area. If new roofing is installed the same day tear-off is made, roofing patch is not required.

3.5 BASE FLASHING REMOVAL

- A. Remove existing base flashings. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.
- B. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish.
- C. Inspect parapet sheathing, wood blocking, curbs, and nailers for deterioration and damage.
 - 1. If parapet sheathing, wood blocking, curbs, and nailers have deteriorated, immediately notify the State.

3.6 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Transport and legally dispose of demolished materials off the State's property.

END OF SECTION 07 01 50.19

SECTION 07 54 19

POLYVINYL-CHLORIDE (PVC) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Fully Adhered polyvinyl chloride (PVC) roofing system. (over concrete deck-high roof, metal deck at lower roofs)
 - 2. Substrate board. (Mechanically fastened)
 - 3. Vapor retarder.
 - 4. Roof insulation. (Mechanically fastened)
 - 5. Cover board. (Mechanically fastened)
 - 6. Walkways.

1.2 PERFORMANCE REQUIREMENTS

- A. Accelerated Weathering: Roof membrane shall withstand 2000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.
- B. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D3746, ASTM D4272/D4272M, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- C. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.
- D. Wind Uplift Resistance: Design roofing system to resist the following wind uplift pressures when tested according to FM Approvals 4474, UL 580, or UL 1897: FM I-90 for design winds speed of 100 mph.
 - 1. Zone 1 (Roof Area Field): -25psf.
 - 2. Zone 2 (Roof Area Perimeter): -37psf
 - 3. Location: From roof edge to 6 feet inside roof edge.
 - 4. Zone 3 (Roof Area Corners): -47psf
 - 5. Location: From roof edge to 6ft from each direction from building corner.
- E. Energy Performance:
 - 1. Solar Reflectance Index (SRI): Three-year-aged SRI not less than 75 when calculated according to ASTM E 1980, based on testing identical products by a qualified testing agency.
 - 2. Roofing system shall have an initial solar reflectance of not less than 0.70 and an emissivity of not less than 0.75 when tested according to CRRC-1.
 - 3. ENERGY STAR Listing: Roofing system shall be listed on the DOE's ENERGY STAR "Roof Products Qualified Product List" for low-slope roof products.

POLYVINYL-CHLORIDE (PVC) ROOFING

- F. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

1.3 PREINSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.

1. Meet with State, roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
5. Review structural loading limitations of roof deck during and after roofing.
6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
7. Review governing regulations and requirements for insurance and certificates.
8. Review temporary protection requirements for roofing system during and after installation.
9. Review roof observation and repair procedures after roofing installation.
10. Review staging area, and site restrictions.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1. For insulation and roof system component fasteners, include copy of FM 1-90 listing.

- B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness of insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.
4. Tapered insulation thickness and slopes.
5. Roof plan showing orientation of roof deck framing and orientation of roof membrane, fastening spacing, and patterns for mechanically fastened roofing system.
6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.

- C. Samples: For the following products:

1. Roof membrane and flashing, of color required.
2. Walkway pads or rolls, of color required.

- D. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For installer and manufacturer.
- B. Manufacturer Certificates:
 - 1. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - a. Submit evidence of compliance with performance requirements.
 - 2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.
- C. Product Test Reports: For roof membrane and insulation, tests performed by independent qualified testing agency indicating compliance with specified requirements.
- D. Evaluation Reports: For components of roofing systems, from ICC-ES
- E. Field Test Reports:
 - 1. Fastener-pullout test results and manufacturer's revised requirements for fastener patterns.
- F. Field quality-control reports.
- G. Sample warranties. For manufacturer's special warranties, filled-out with all specific project information.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.
- B. Warranties:
 - 1. Manufacturer's Warranty
 - 2. Installer's Warranty

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm with a minimum of 5 years' experience that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.9 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.10 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period. The Warranty shall not exclude regular foot traffic and shall not obligate the State to perform Manufacturer defined recorded annual maintenance as a condition for continued warranty coverage.
 - 1. Warranty Period: 30 years upon Acceptance of the Work.

PART 2 - PRODUCTS

2.1 PVC MEMBRANE ROOFING, Class A.

- A. PVC Sheet: ASTM D4434/D4434M, Type III, fabric reinforced and fabric backed.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - a. Duro-Last Roofing, Inc.
 - b. Sika Sarnafil.
 - c. Carlisle
 - d. GAF Materials Corporation
 - e. Or approved equal.
 - 2. Membrane Thickness: 80 mils.
 - 3. Exposed Face Color: White.

2.2 POLYETHYLENE VAPOR RETARDERS

- A. Polyethylene Vapor Retarders: ASTM D4397, 10-mil-thick sheet, with maximum permeance rating of 0.1 perm.

2.3 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.
 - 1. Adhesives and Sealants: Comply with VOC limits of authorities having jurisdiction.
 - a. Multipurpose Construction Adhesives: 200 g/L.
 - b. Contact Adhesive: 250 g/L.
 - c. Other Adhesives: 250 g/L.
 - d. PVC Welding Compounds: 510 g/L.
 - e. Adhesive Primer for Plastic: 500 g/L.
 - f. Single-Ply Roof Membrane Sealants: 250 g/L.
 - g. Non-membrane Roof Sealants: 300 g/L.
 - h. Sealant Primers for Nonporous Substrates: 250 g/L.
 - i. Sealant Primers for Porous Substrates: 775 g/L.
- B. Sheet Flashing: Manufacturer's standard 60 mil. minimum PVC sheet flashing of same color as PVC sheet.
- C. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.
- D. Bonding Adhesive: Manufacturer's standard VOC compliant flashing adhesive.
- E. Metal Termination Bars: Manufacturer's standard, predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- F. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate, and acceptable to roofing system manufacturer.
- G. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.4 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by PVC roof membrane manufacturer, approved for use in FM Approvals' RoofNav listed roof assemblies, approved for use in SPRI's Directory of Roof Assemblies listed roof assemblies.
- B. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Atlas Roofing Corporation.
 - b. Hunter Panels
 - c. R-Max
 - d. Or approved equal
 2. Compressive Strength: 20 psi.
 3. Size: 48 by 96 inches.
 4. Thickness:
 - a. Base Layer: 1.5 inches.
 - b. Top Layer: 1.5 inches.
- C. Tapered Insulation: Provide factory-tapered insulation board where required.
1. Material: Match roof insulation.
 2. Minimum Thickness: 1/2 inch.
 3. Slope: 1/4" per foot or as indicated otherwise.
 - a. Roof Field: as indicated on Drawings.
 - b. Saddles and Crickets: 1/2 inch per foot unless otherwise indicated on Drawings.

2.5 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with other roofing system components.
- B. Fasteners: Factory-coated steel fasteners and metal plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
1. Modified asphaltic, asbestos-free, cold-applied adhesive.
 2. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
 3. Full-spread, spray-applied, low-rise, two-component urethane adhesive.
- D. Cover Board: ASTM C1177/C1177M, glass-mat, water-resistant gypsum board.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Georgia-Pacific Gypsum LLC.
 - b. National Gypsum Company.
 - c. USG Corporation.
 - d. Or approved equal.
 2. Thickness: 1/4 inch.
 3. Surface Finish: Unprimed.

2.6 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway rolls, approximately 0.096 inch thick and acceptable to roofing system manufacturer.
 - 1. Size: 36 inches wide minimum x 50' rolls.
 - 2. Color: Contrasting with roof membrane.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
 - 1. Verify that roof deck surfaces are flat and square and fastened to supporting framing without warping or deflections.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Perform fastener-pullout tests according to roof system manufacturer's written instructions.
 - 1. Submit test result within 24 hours of performing tests.
 - a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.
- B. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing system installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- C. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place, or no rain is forecast.

3.3 INSTALLATION OF ROOFING, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions, FM Approvals' RoofNav listed roof assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

3.4 INSTALLATION OF VAPOR RETARDER

- A. Polyethylene Film: Loosely lay polyethylene-film vapor retarder in a single layer over area to receive vapor retarder, side and end lapping each sheet a minimum of 2 and 6 inches, respectively.
 - 1. Extend vertically up parapet walls and projections to a minimum height equal to height of the insulation and cover board.
 - 2. Continuously seal side and end laps with tape.

3.5 INSTALLATION OF INSULATION

- A. Coordinate installing roofing system components, so insulation is not exposed to precipitation or left exposed at end of workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Installation Over metal Decking
 - 1. Mechanically fasten slip sheet to roof deck using mechanical fasteners specifically designed and sized for fastening slip sheet to wood decks.
 - a. Fasten slip sheet according to requirements in SPRI's Directory of Roof Assemblies for specified Wind Uplift Load Capacity.
 - b. Fasten slip sheet to resist specified uplift pressure at corners, perimeter, and field of roof.
 - 2. Install base layer of insulation with joints staggered not less than 24 inches in adjacent rows end joints staggered not less than 12 inches in adjacent rows.
 - a. Where installing composite and noncomposite insulation in two or more layers, install noncomposite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.
 - b. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - c. Make joints between adjacent insulation boards not more than 1/4 inch in width.
 - d. Fill gaps exceeding 1/4 inch with insulation.
 - e. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
 - f. Loosely lay base layer of insulation units over substrate.
 - g. Mechanically attach base layer of insulation and substrate board using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to decks, if required to meet manufacturers instructions and warranty requirements.
 - 1) Fasten insulation according to requirements in SPRI's Directory of Roof Assemblies for specified Wind Uplift Load Capacity.
 - 2) Fasten insulation to resist specified uplift pressure at corners, perimeter, and field of roof.

D. Installation Over Concrete Deck:

1. Install base layer and tapered layer of insulation with joints staggered not less than 24 inches in adjacent rows.
 - a. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - b. Make joints between adjacent insulation boards not more than 1/4 inch in width.
 - c. At internal roof drains, modify insulation to create a square drain sump.
 - 1) Trim insulation so that water flow is unrestricted.
 - d. Fill gaps exceeding 1/4 inch with insulation.
 - e. Cut and fit insulation within 1/4 inch of projections, and penetrations.
 - f. Loosely lay base layer of insulation units over substrate.
 - g. Adhere base layer of insulation to concrete roof deck according to FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification, as follows:
 - 1) Prime surface of concrete deck with asphalt primer at rate of 3/4 gal./100 sq. ft. and allow primer to dry.
 - 2) Set insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
2. Install upper layers of tapered insulation with joints of each layer offset not less than 12 inches from previous layer of insulation.
 - 1) Set each tapered layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
3. Install upper layer of insulation and tapered insulation with joints of each layer offset not less than 12 inches from previous layer of insulation.
 - a. Staggered end joints within each layer not less than 24 inches in adjacent rows.
 - b. Install with long joints continuous and with end joints staggered not less than 12 inches in adjacent rows.
 - c. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - d. Make joints between adjacent insulation boards not more than 1/4 inch in width.
 - e. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches.
 - 1) Trim insulation so that water flow is unrestricted.
 - f. Fill gaps exceeding 1/4 inch with insulation.
 - g. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
 - h. Loosely lay each layer of insulation units over substrate.
 - i. Adhere each layer of insulation to substrate using adhesive according to SPRI's Directory of Roof Assemblies listed roof assembly requirements for specified Wind Uplift Load Capacity and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
 - 1) Set each layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F of equiviscous temperature.

- 2) Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
- 3) Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

3.6 INSTALLATION OF COVER BOARDS

- A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.
 1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 2. At internal roof drains, conform to slope of drain sump.
 - a. Trim cover board so that water flow is unrestricted.
 3. Cut and fit cover board tight to nailers, projections, and penetrations.
 4. Adhere cover board to substrate using adhesive according to FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification, as follows:
 - a. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.

3.7 INSTALLATION OF MECHANICALLY FASTENED ROOF MEMBRANE

- A. Mechanically fasten roof membrane over area to receive roofing according to roofing system manufacturer's written instructions.
- B. Unroll roof membrane and allow to relax before installing.
- C. For in-splice attachment, install roof membrane with long dimension perpendicular to roof deck.
- D. Start installation of roofing in presence of roofing system manufacturer's technical personnel and The State's testing and inspection agency.
- E. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- F. Mechanically fasten or adhere roof membrane securely at terminations, penetrations, and perimeter of roofing.
- G. Apply roof membrane with side laps shingled with slope of roof deck where possible.
- H. In-Seam Attachment: Secure one edge of PVC sheet using fastening plates or metal battens centered within seam, and mechanically fasten PVC sheet to roof deck.
- I. Seams: Clean seam areas, overlap roof membrane, and hot-air weld side and end laps of roof membrane and sheet flashings to ensure a watertight seam installation.

1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roof membrane and sheet flashings.
 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
 3. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- J. Spread sealant bed over deck-drain flange at roof drains, and securely seal roof membrane in place with clamping ring.

3.8 INSTALLATION OF BASE FLASHING

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.9 INSTALLATION OF WALKWAYS

- A. Flexible Walkways: Install walkway products according to manufacturer's written instructions.
1. Install flexible walkways at the following locations:
 - a. Perimeter of each rooftop unit.
 - b. Between each rooftop unit location, creating a continuous path connecting rooftop unit locations.
 - c. Between each roof hatch and each rooftop unit location or path connecting rooftop unit locations.
 - d. Locations indicated on Drawings.
 - e. As required by roof membrane manufacturer's warranty requirements.
 2. Provide 6-inch clearance between adjoining pads.
 3. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.10 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and the State.

- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of acceptance of the work and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.11 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
 - 1. California Department of Motor Vehicles.
 - 2. Address: 2415 1st Avenue, Sacramento, CA 95818
 - 3. Building Name/Type: Watsonville DMV Field office.
 - 4. Address: 90 Alta Vista Ave., Watsonville, CA 95076
 - 5. Area of Work:
 - 6. Acceptance Date:
 - 7. Warranty Period:
 - 8. Expiration Date:
- B. AND WHEREAS Roofing Installer has contracted (either directly with The State or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period Roofing Installer will, at Roofing Installer's own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
 - 1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding;
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by The State.
 - 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by The State or by another responsible party so designated.

3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
4. During Warranty Period, if The State allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If The State engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified The State in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. The State shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off the State from other remedies and resources lawfully available to the State in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with the State or a subcontract with The State's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION 07 54 19

SECTION 07 62 00

SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Manufactured reglets.
2. Formed roof-drainage sheet metal fabrications.
3. Formed low-slope roof sheet metal fabrications.

1.2 PREINSTALLATION MEETING

- ###### A. Pre-installation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each of the following

1. Underlayment materials.
2. Elastomeric sealant.
3. Butyl sealant.
4. Epoxy seam sealer.
5. Gutters and downspouts.

B. Shop Drawings: For sheet metal flashing and trim.

1. Include plans, elevations, sections, and attachment details.
2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled Work.
3. Include identification of material, thickness, weight, and finish for each item and location in Project.
4. Include details for forming, including profiles, shapes, seams, and dimensions.
5. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
6. Include details of termination points and assemblies.
7. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
8. Include details of roof-penetration flashing.
9. Include details of edge conditions, including eaves, ridges, valleys, rakes, crickets, flashings, and counter-flashings.
10. Include details of special conditions.
11. Include details of connections to adjoining work.

- ###### C. Samples: For each exposed product and for each color and texture specified, 12 inches long by actual width.

SHEET METAL FLASHING AND TRIM

1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of coping and roof edge flashing that is ANSI/SPRI/FM 4435/ES-1 tested and FM Approvals approved.
- B. Evaluation Reports: For copings and roof edge flashing, from an agency acceptable to authority having jurisdiction showing compliance with ANSI/SPRI/FM 4435/ES-1.
- C. Sample warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance data.
- B. Special warranty.

1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
 - 1. For copings and roof edge flashings that are ANSI/SPRI/FM 4435/ES-1 tested and FM Approvals approved, shop shall be listed as able to fabricate required details as tested and approved.

1.7 WARRANTY

- A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
 - b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 10 years upon Acceptance of the Work.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Sheet metal flashing and trim assemblies, including cleats, anchors, and fasteners, shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

SHEET METAL FLASHING AND TRIM

- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual: Architectural Metal Flashing, Condensation and Air Leakage Control, and Reroofing" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 SHEET METALS

- A. Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet in accordance with ASTM A653/A653M, G90 coating designation or aluminum-zinc alloy-coated steel sheet in accordance with ASTM A792/A792M, Class AZ50 coating designation, Grade 40; pre-painted by coil-coating process to comply with ASTM A755/A755M.
 - 1. Surface: Smooth, flat.
 - 2. Exposed Coil-Coated Finish:
 - a. Three-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF) resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 3. Color: As selected by State from manufacturer's full range.
 - 4. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.

2.3 MISCELLANEOUS MATERIALS

- A. Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.

- b. Blind Fasteners: High-strength aluminum or stainless steel rivets suitable for metal being fastened.
 - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
- 2. Fasteners for Copper Sheet: Copper, hardware bronze or passivated Series 300 stainless steel.
- 3. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel in accordance with ASTM A153/A153M or ASTM F2329.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- D. Elastomeric Sealant: ASTM C920, elastomeric silicone polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- F. Bituminous Coating: Cold-applied asphalt emulsion in accordance with ASTM D1187/D1187M.
- G. Asphalt Roofing Cement: ASTM D4586, asbestos free, of consistency required for application.
- H. Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with factory-mitered and -welded corners and junctions and with interlocking counterflashing on exterior face, of same metal as reglet.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fry Reglet Corporation.
 - b. OMG, Inc.
 - c. Or approved equal
 - 2. Material: Aluminum, 0.024 inch thick; Galvanized steel, 0.022 inch thick.
 - 3. Surface-Mounted Type: Provide with slotted holes for fastening to substrate, with neoprene or other suitable weatherproofing washers, and with channel for sealant at top edge.
 - 4. Stucco Type: Provide with upturned fastening flange and extension leg of length to match thickness of applied finish materials.
 - 5. Accessories:
 - a. Flexible-Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where Drawings show reglet without metal counterflashing.
 - b. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing's lower edge.
 - 6. Finish: With manufacturer's standard color coating.

2.4 FABRICATION, GENERAL

- A. Custom fabricate sheet metal flashing and trim to comply with details indicated and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required.
 - 1. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
 - 2. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 - 3. Verify shapes and dimensions of surfaces to be covered and obtain field measurements for accurate fit before shop fabrication.
 - 4. Form sheet metal flashing and trim to fit substrates without excessive oil-canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 - 5. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Fabrication Tolerances:
 - 1. Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
 - 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
 - 2. Use lapped expansion joints only where indicated on Drawings.
- D. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal in accordance with cited sheet metal standard to provide for proper installation of elastomeric sealant.
- E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard and by FM Global Property Loss Prevention Data Sheet 1-49 for application, but not less than thickness of metal being secured.
- G. Seams:
 - 1. Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.

2.5 ROOF-DRAINAGE SHEET METAL FABRICATIONS

- A. Hanging Gutters:

1. Fabricate to cross section required, complete with end pieces, outlet tubes, and other accessories as required.
2. Fabricate in minimum 96-inch-long sections.
3. Furnish flat-stock gutter brackets and flat-stock gutter spacers and straps fabricated from same metal as gutters, of size recommended by cited sheet metal standard, but with thickness not less than twice the gutter thickness.
4. Fabricate expansion joints, expansion-joint covers, gutter bead reinforcing bars, and gutter accessories from same metal as gutters.
5. Accessories: Wire-ball downspout strainer.
6. Gutters with Girth up to 15 Inches: Fabricate from the following materials:

- a. Aluminum-Zinc Alloy-Coated Steel: 0.022 inch thick.

- B. Downspouts: Steel Pipe: ASTM A53/A53M, Standard Weight (Schedule 40). Shop fabricate elbows.

1. Hanger Style: U clamp to wall.

2.6 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Roof Edge Flashing (Gravel Stop) and Fascia Cap: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long sections. Furnish with 6-inch-wide, joint cover plates.

1. Fabricate from the following materials:

- a. Galvanized Steel: 0.028 inch thick.

- B. Copings: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long, sections. Fabricate joint plates of same thickness as copings. Furnish with continuous cleats to support edge of external leg and drill elongated holes for fasteners on interior leg. Miter corners, fasten and seal watertight. Shop fabricate interior and exterior corners.

1. Fabricate from the following materials:

- a. Galvanized Steel: 0.040 inch thick.

- C. Base Flashing: Fabricate from the following materials:

1. Galvanized Steel: 0.028 inch thick.

- D. Counterflashing: Shop fabricate interior and exterior corners. Fabricate from the following materials:

1. Galvanized Steel: 0.022 inch thick.

- E. Roof-Penetration Flashing: Fabricate from the following materials:

1. Galvanized Steel: 0.028 inch thick.

F. Roof-Drain Flashing: Fabricate from the following materials:

1. Stainless Steel: 0.0156 inch thick.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Install sheet metal flashing and trim to comply with details indicated and recommendations of cited sheet metal standard that apply to installation characteristics required unless otherwise indicated on Drawings.

1. Install fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
2. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of sealant.
3. Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement.
4. Install sheet metal flashing and trim to fit substrates and to result in watertight performance.
5. Install continuous cleats with fasteners spaced not more than 12 inches o.c.
6. Space individual cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
7. Install exposed sheet metal flashing and trim with limited oil-canning, and free of buckling and tool marks.
8. Do not field cut sheet metal flashing and trim by torch.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Coat concealed side of uncoated-aluminum sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.

1. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
2. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.

D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Seal joints as required for watertight construction.

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1. Use sealant-filled joints unless otherwise indicated.
 - a. Embed hooked flanges of joint members not less than 1 inch into sealant.
 - b. Form joints to completely conceal sealant.
 - c. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way.
 - d. Adjust setting proportionately for installation at higher ambient temperatures.
 - 1) Do not install sealant-type joints at temperatures below 40 deg F.
2. Prepare joints and apply sealants to comply with requirements in Section 07 92 00 "Joint Sealants."

G. Rivets: Rivet joints in uncoated aluminum where necessary for strength.

3.2 INSTALLATION OF ROOF-DRAINAGE SYSTEM

- A. Install sheet metal roof-drainage items to produce complete roof-drainage system in accordance with cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.

3.3 INSTALLATION OF ROOF FLASHINGS

- A. Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and cited sheet metal standard.

1. Provide concealed fasteners where possible, and set units true to line, levels, and slopes.
2. Install work with laps, joints, and seams that are permanently watertight and weather resistant.

- B. Roof Edge Flashing:

1. Install roof edge flashings in accordance with ANSI/SPRI/FM 4435/ES-1.
2. Anchor to resist uplift and outward forces in accordance with recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at **staggered 3-inch** centers.
3. Anchor to resist uplift and outward forces in accordance with recommendations in FM Global Property Loss Prevention Data Sheet 1-49 for FM Approvals' listing for required windstorm classification.

- C. Copings:

1. Install roof edge flashings in accordance with ANSI/SPRI/FM 4435/ES-1.

- D. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches over base flashing. Install stainless steel draw band and tighten.

- E. Counterflashing: Coordinate installation of counterflashing with installation of base flashing.

1. Insert counterflashing in reglets or receivers and fit tightly to base flashing.
2. Extend counterflashing 4 inches over base flashing.

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3. Lap counterflashing joints minimum of 4 inches.

- F. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

3.4 INSTALLATION OF WALL FLASHINGS

- A. Install sheet metal wall flashing to intercept and exclude penetrating moisture in accordance with cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.

3.5 INSTALLATION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.6 CLEANING

- A. Clean and neutralize flux materials. Clean off excess solder.
- B. Clean off excess sealants.

3.7 PROTECTION

- A. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures, as determined by State.

END OF SECTION 07 62 00

SECTION 07 72 00

ROOF ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Roof hatches with safety railings.
2. Preformed flashing sleeves.

1.2 PERFORMANCE REQUIREMENTS

- ###### A. General Performance:
- Roof accessories shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

1.3 SUBMITTALS

- ###### A. Product Data:
- For each type of roof accessory indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- ###### B. Shop Drawings:
- For roof accessories. Include plans, elevations, keyed details, and attachments to other work. Indicate dimensions, loadings, and special conditions. Distinguish between plant and field-assembled work.
- ###### C. Samples:
- For each exposed product and for each color and texture specified, prepared on Samples of size to adequately show color.
- ###### D. Coordination Drawings:
- Roof plans, drawn to scale, and coordinating penetrations and roof-mounted items. Show the following:
1. Size and location of roof accessories specified in this Section.
 2. Method of attaching roof accessories to roof or building structure.
 3. Other roof-mounted items including mechanical and electrical equipment, ductwork, piping and conduit.
 4. Required clearances.
- ###### E. Operation and Maintenance Data:
- For roof accessories to include in operation and maintenance manuals.
- ###### F. Warranty:
- Sample of special warranty.

1.4 COORDINATION

- A. Coordinate layout and installation of roof accessories with roofing and flashing and adjoining construction to provide a leak-proof, weather-tight, secure, and non-corrosive installation.
- B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.5 WARRANTY

- A. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finishes or replace roof accessories that show evidence of deterioration of factory-applied finishes for a period of one year. Warranty shall cover replacement of all components of the system against defects in manufacturing.
 - 1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:
 - a. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

PART 2 - PRODUCTS

2.1 ROOF HATCHES

- A. Roof Hatches: Metal roof-hatch units with lids and insulated single-walled curbs, welded or mechanically fastened and sealed corner joints, continuous lid-to-curb counterflashing and weathertight perimeter gasketing, straight sides, and integrally formed deck-mounting flange at perimeter bottom.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Acudor Products, Inc.
 - b. AES Industries, Inc.
 - c. Babcock-Davis.
 - d. BILCO Company (The).
 - e. Custom Solution Roof and Metal Products.
 - f. KCC International Inc.
 - g. Metallic Products Corp.
 - h. Milcor; Commercial Products Group of Hart & Cooley, Inc.
 - i. Pate Company (The).
 - j. Or equal.
 - 2. Type and Size: Single-leaf lid, size as indicated on Drawings with Integrated safety rail system.
 - 3. Loads: Minimum 40-lbf/sq. ft. external live load and 20-lbf/sq. ft. internal uplift load.
 - 4. Hatch Material: Aluminum sheet.
 - a. Thickness: 11 gauge 0.120 inch.
 - b. Finish: Powder-coated.
 - c. Color: As selected by the State from manufacturer's full range.

ROOF ACCESSORIES

5. Construction:

- a. Insulation: 2-inch-thick, polyisocyanurate board.
 - 1) R-Value: 12.0 minimum according to ASTM C1363.
- b. Nailer: Factory-installed wood nailer continuous around hatch perimeter.
- c. Hatch Lid: Opaque, insulated, and double walled, with manufacturer's standard metal liner of same material and finish as outer metal lid.
- d. Exterior Curb Liner: Manufacturer's standard, of same material and finish as metal curb.
- e. Fabricate curbs to minimum height of 12 inches above roofing surface unless otherwise indicated.

6. Hardware: Manufacturer's standard stainless steel; with hinges, hold-open devices, and independent manual-release devices for inside and outside operation of lids.

2.2 METAL MATERIALS

- A. Aluminum Sheet: ASTM B209, manufacturer's standard alloy for finish required, with temper to suit forming operations and performance required.
 - 1. Mill Finish: As manufactured.
- B. Aluminum Extrusions and Tubes: ASTM B221, manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.
- C. Stainless Steel Sheet and Shapes: ASTM A240/A240M or ASTM A666, Type 304.
- D. Steel Tube: ASTM A500/A500M, round tube.
- E. Galvanized-Steel Tube: ASTM A500/A500M, round tube, hot-dip galvanized according to ASTM A123/A123M.
- F. Steel Pipe: ASTM A53/A53M, galvanized.

2.3 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, thickness as indicated.
- C. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, acceptable to authorities having jurisdiction, containing no arsenic or chromium, and complying with AWPA C2; not less than 1-1/2 inchesthick.
- D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.
- E. Fasteners: Roof accessory manufacturer's recommended fasteners suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened.

Provide non-removable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:

1. Fasteners for Zinc-Coated or Aluminum-Zinc Alloy-Coated Steel: Series 300 stainless steel or hot-dip zinc-coated steel according to ASTM A 153/A 153M or ASTM F 2329.
- F. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, PVC, or silicone or a flat design of foam rubber, sponge neoprene, or cork.
- G. Elastomeric Sealant: ASTM C 920, elastomeric silicone polymer sealant as recommended by roof accessory manufacturer for installation indicated; low modulus; of type, grade, class, and use classifications required to seal joints and remain watertight.
- H. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for expansion joints with limited movement.

2.4 PREFORMED FLASHING SLEEVES

- A. Exhaust Vent Flashing: Double-walled metal flashing sleeve or boot, insulation filled, with integral deck flange, with removable metal hood and metal collar.
1. Manufacturers: Subject to compliance with requirements.
 - a. Custom Solution Roof and Metal Products.
 - b. Thaler Metal USA Inc.
 - c. Or equal.
 2. Metal: Aluminum sheet, 0.063 inch thick or material as appropriate.
 3. Diameter: 3 inches
 4. Finish: Paint to match adjacent roofing material.
- B. Vent Stack Flashing: Metal flashing sleeve, uninsulated, with integral deck flange.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Custom Solution Roof and Metal Products.
 - b. Milcor Inc.; Commercial Products Group of Hart & Cooley, Inc.
 - c. Thaler Metal USA Inc.
 - d. Or equal.
 2. Metal: Aluminum sheet, 0.063 inch thick.
 3. Height: 7 inches
 4. Diameter: To match existing condition.
 5. Finish: Manufacturer's standard.

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.
- B. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- C. Verify dimensions of roof openings for roof accessories.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install roof accessories according to manufacturer's written instructions.
 - 1. Install roof accessories level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.
 - 2. Anchor roof accessories securely in place so they are capable of resisting indicated loads.
 - 3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.
 - 4. Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.
- B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
 - 1. Coat concealed side of roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
 - 2. Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet, or install a course of polyethylene sheet.
- C. Preformed Flashing-Sleeve Installation: Secure flashing sleeve to roof membrane according to flashing-sleeve manufacturer's written instructions.
- D. Seal joints with elastomeric sealant as required by roof accessory manufacturer.

3.3 REPAIR AND CLEANING

- A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A 780.
- B. Touch up factory-primed surfaces with compatible primer ready for field painting.

ROOF ACCESSORIES

- C. Clean exposed surfaces according to manufacturer's written instructions.
- D. Clean off excess sealants.
- E. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 07 72 00

SECTION 07 72 01
BALLAST FALL PROTECTION SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

Provide and install freestanding Guard Roof Edge Protection System

1.2 REFERENCES

- A. American National Standards Institute (ANSI) - A21.1 Safety Requirements for Floor and Wall Openings, Railings and Toe Boards.
- B. American National Standards Institute (ANSI) - A58.1 Minimum Design Loads in Buildings and Other Structures.
- C. American National Standards Institute (ANSI) - A117.1 Accessible and Usable Buildings and Facilities.
- D. American Society of Testing and Materials (ASTM) A47 - Standard Specification for Ferrite Malleable Iron Castings.
- E. American Society of Testing and Materials (ASTM) A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- F. American Society of Testing and Materials (ASTM) A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- G. American Society of Testing and Materials (ASTM) A500 - Standard Specification for cold-formed welded and seamless carbon steel structural tubing.
- H. Occupational Safety & Health Administration (OSHA): 1910.23 - Guarding Floor and Wall Openings and Holes.

1.3 SUBMITTALS

- . Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Shop Drawings: Indicate profiles, sizes, connections, size and type of fasteners and accessories.
 - 3. Field Measurements: Verify field measurements prior to assembly and/or ordering.
Storage and handling requirements and recommendations.
 - 4. Installation Instruction.
- B. Shop Drawings: Drawings showing fabrication and installation of handrails and guardrails including plans, elevations, sections, details of components, anchor details, and attachment to adjoining units of work.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

1.4 QUALITY ASSURANCE

- A. Railings Structural Requirements:
 - 1. Handrail, wall rail and guardrail assemblies and attachments shall withstand a minimum concentrated load of 200 pounds (90719 g) applied in any direction on the top rail.
 - 2. Infill area of guardrail system capable of withstanding a horizontal concentrated load of 200 pounds (90719 g) applied to one square foot (8165 g/sm) at any point in the system. Load not to act concurrently with loads on top rail of system in determining stress on guardrail.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Materials to be delivered to the job site in good condition and adequately protected against damage as handrails are a finished product.
- B. Store products in manufacturer's unopened packaging until ready for installation.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Field Measurements: Where handrails and railings are indicated to fit to other construction, check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings.
 - 1. Where field measurements cannot be made without delaying the railing fabrication and delivery, obtain guaranteed dimensions in writing by the Contractor and proceed with fabrication of products to not delay fabrication, delivery and installation.
- C. Coordinate fabrication and delivery schedule of handrails with construction progress and sequence to avoid delay of railing installation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer:

1. Basis of Design: Kee Klamp Safety, Inc.
2. Guardian
3. Unistrut
4. Global Industry
5. Or Equal.

2.2 SYSTEMS

A. Provide pipe or tubing, fittings, and accessories as indicated or required to match design indicated on the Drawings.

1. Fittings: Cast iron.
2. Handrail Tubing, 12 gauge, Size
 - a. 1-1/2 inches - 1.90 inches O D.
 - b. 1-1/4 inches – 1.660 inches O D.
3. Handrail Pipe, Schedule 40, Size:
 - a. 1-1/2 inches - 1.90 inches (48 mm) O D.
 - b. 1-1/4 inches – 1.660 inches (38 mm) O D.
4. Infill Panels: As indicated. Refer to Drawings.

B. Roof Edge Protection: Provide freestanding Roof Edge Protection System, including pipe railings, uprights, bases, counterweights and fittings.

1. Freestanding counterweighted guardrail system with 42 inch (1067 mm) minimum height to provide a pedestrian egress barrier on the roof to withstand a minimum load of 200 lb (90719 g) in any direction to the top rail per OSHA Regulation 29 CFR 1910.23.
2. Pipe: Steel, 1-1/2 inches (48 mm) schedule 40, galvanized.
3. Tube: Galvanized tube, 12 gauge, 1-1/2 inches, 1.90 inches (48 mm) OD.
4. Rails and Posts: Galvanized Tube, 12 gauge, 1-1/2 inches 1.90 inches (38 mm) diameter.
5. Counterweight Levers: Galvanized Tube, 12 gauge, 1-1/4 inches 1.660 inches (38 mm) diameter.
6. Mounting Bases: Steel bases are galvanized and are supplied with a rubber pad on underside of the component.
7. Counterweights: Molded recycled PVC with one fixing collar per counterbalance.
8. Fasteners: stainless steel or galvanized.

C. Custom Design: Provide pipe, fittings, and accessories as indicated or required by Drawings to match design indicated.

2.3 MATERIALS

A. Pipe:

1. Steel Pipe: Steel, 1-1/2 inches (38 mm) schedule 40, galvanized.
2. Tube: Galvanized tube, 12 gauge, 1-1/2 inches, 1.90 inches (48 mm) OD.

B. Fittings, Including Elbows, Crossovers, Wall flanges, Tees, Couplings:

1. Galvanized Malleable Cast Iron: structural pipe fittings, ASTM A447 with ASTM A153 galvanizing

- C. Finish: Polyester factory applied spray coating.
- D. Fasteners: Type 304 or 305 stainless steel or galvanized.

2.4 FABRICATION

- A. Fit and shop assemble components in largest practical sizes for delivery to site.
- B. Upright tops shall be plugged with weather and light resistant material.
- C. Assemble components with joints tightly fitted and secured. Accurately form components to suit installation.

PART 3 EXECUTION

3.1 PREPARATION

- A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Fit exposed connections accurately together to form tight joints. For all connections with clamp fittings, each set screw is to be tightened to 29 foot pounds (39 N-m) of torque.
- C. Perform cutting, and fitting required for installation of handrails. Set handrails and accurately in location, alignment, and elevation, measured from established lines and levels.

3.3 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 07 92 00

JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.

1.2 PREINSTALLATION MEETINGS

- ###### A. Pre-installation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

- ###### A. Product Data: For each joint-sealant product.

- ###### B. Samples: For each kind and color of joint sealant required.

- ###### C. Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.4 INFORMATIONAL SUBMITTALS

- ###### A. Product test reports.

- ###### B. Field-adhesion-test reports.

- ###### C. Sample warranties.

1.5 QUALITY ASSURANCE

- ###### A. Testing Agency Qualifications: Qualified according to ASTM C1021 to conduct the testing indicated.

- ###### B. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

JOINT SEALANTS

1.6 FIELD CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
 2. When joint substrates are wet.
 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.7 WARRANTY

- A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
1. Warranty Period: Two years from date of Acceptance of Work.
- B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
1. Warranty Period: Five years from date of Acceptance of Work.
- C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
1. Movement of the structure caused by stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
 2. Disintegration of joint substrates from causes exceeding design specifications.
 3. Mechanical damage caused by individuals, tools, or other outside agents.
 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As selected by State from manufacturer's full range.

2.2 SILICONE JOINT SEALANTS

- A. Silicone, S, NS, 50, NT: Single-component, non-sag, plus 50 percent and minus 50 percent movement capability, non-traffic-use, neutral-curing silicone joint sealant; ASTM C920, Type S, Grade NS, Class 50, Use NT.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Pecora Corporation.
 - b. Sika Corporation; Joint Sealants.
 - c. The Dow Chemical Company.
 - d. Or approved equal.

2.3 JOINT-SEALANT BACKING

- A. Cylindrical Sealant Backings: ASTM C1330, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Alcot Plastics Ltd.
 - b. BASF Corporation.
 - c. Construction Foam Products; a division of Nomaco, Inc.
 - d. Or approved
- B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.4 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
- C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

JOINT SEALANTS

1. Remove laitance and form-release agents from concrete.
 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces.

3.2 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with ASTM C1193 and joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
- C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses in each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
1. Provide concave joint profile per Figure 8A in ASTM C1193 unless otherwise indicated.

3.3 FIELD QUALITY CONTROL

- A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
1. Extent of Testing: Test completed and cured sealant joints as follows:
 - a. Perform 10 tests for the first 1000 feet of joint length for each kind of sealant and joint substrate.
 - b. Perform one test for each 1000 feet of joint length thereafter or one test per each floor per elevation.
 2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C1193 or Method A, Tail Procedure, in ASTM C1521.
 3. Test report must include the following:

- a. Whether sealants filled joint cavities and are free of voids.
 - b. Whether sealant dimensions and configurations comply with specified requirements.
 - c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion complies with sealant manufacturer's field-adhesion hand-pull test criteria.
4. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.
- B. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.4 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Acceptance of the Work. If, despite such protection, damage or deterioration occurs, cut out, remove, and repair damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 07 92 00

SECTION 09 91 13
EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
 - 1. Galvanized metal.
 - 2. Aluminum (not anodized or otherwise coated).
 - 3. wood products

1.2 DEFINITIONS

- A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D523.
- B. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523.
- C. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D523.
- D. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D523.
- E. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D523.
- F. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D523.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
 - 1. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
- B. Samples: For each type of paint system and each color and gloss of topcoat.

1.4 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. The State will select one surface to represent surfaces and conditions for application of each paint system.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft..
 - b. Other Items: The State will designate items or areas required.
2. Final approval of color selections will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by the State at no added cost to the State.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Benjamin Moore & Co..
 2. Dunn-Edwards Corporation (a Nippon Paint Holdings Co. Ltd. company).
 3. Kelly-Moore Paint Company Inc.
 4. Zinsser; Rust-Oleum Corporation.
 5. Sherwin-Williams
 6. Or approved equal.
- B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in the Exterior Painting Schedule for the paint category indicated.

2.2 PAINT, GENERAL

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."
- B. Material Compatibility:
 1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- C. Colors: As selected by State from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Wood: 15 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."
- B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

- A. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by The State, and leave in an undamaged condition.
- B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 EXTERIOR PAINTING SCHEDULE

A. Galvanized-Metal Substrates:

1. Epoxy-Based Light Industrial Coating System MPI EXT 5.3J:
 - a. Prime Coat: Primer, galvanized, epoxy based, MPI #134.
 - 1) Sherwin-Williams; B66W1310
 - 2) Dunn-Edwards; ULGM00-WH
 - 3) PPG Architectural; 635-045
 - b. Intermediate Coat: Light industrial coating, exterior, epoxy based, matching topcoat.
 - c. Topcoat: Light industrial coating, exterior, polyurethane, semi-gloss (MPI Gloss Level 5), MPI #163.
 - 1) Sherwin-Williams; B66W01151
 - 2) Dunn-Edwards; ECCT50
 - 3) Cloverdale Paint; 70623

B. Aluminum Substrates:

1. Water-Based Light Industrial Coating System MPI EXT 5.4G:
 - a. Prime Coat: Primer, quick dry, for aluminum, MPI #95.
 - 1) PPG Architectural; 4160
 - 2) Dunn-Edwards; SLPR00-2-WH
 - 3) Rust-oleum; 11301
 - b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
 - c. Topcoat: Light industrial coating, exterior, water based, semi-gloss (MPI Gloss Level 5), MPI #163.
 - 1) Sherwin-Williams; B66W01151
 - 2) Dunn-Edwards; ECCT50
 - 3) Cloverdale Paint; 70623

C. Wood.

1. Latex System MPI EXT 3.3A:
 - a. Latex Prime Coat: Exterior, matching topcoat.
 - b. Alkali-Resistant Prime Coat: Primer, alkali resistant, water based, MPI #3.

- 1) Sherwin Williams; CF01W0050
 - 2) Dunn-Edwards; SBPR00
 - 3) Cloverdale Paint; 05700
- c. Intermediate Coat: Latex, exterior, matching topcoat.
- d. Flat Topcoat: Latex, exterior, flat (MPI Gloss Level 1), MPI #10.
- 1) Sherwin Williams; CF01W0050
 - 2) Dunn-Edwards; SBPR00
 - 3) Cloverdale Paint; 05700

END OF SECTION 09 91 13

SECTION 26 05 33

RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal conduits and fittings.
2. Boxes, enclosures, and cabinets.

1.2 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. GRC: Galvanized rigid steel conduit.
- C. LFMC: Liquid-tight flexible metal conduit.

1.3 ACTION SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.

PART 2 - PRODUCTS

2.1 METAL CONDUITS AND FITTINGS

A. Metal Conduit:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Republic Conduit.
 - b. Western Tube and Conduit Corporation.
 - c. Wheatland Tube Company.
 - d. Or Equal.
2. Listing and Labeling: Listed and labeled as defined in CEC 2019, by a qualified testing agency, and marked for intended location and application.

RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

3. GRC: Comply with ANSI C80.1 and UL 6.
4. EMT: Comply with ANSI C80.3 and UL 797.
5. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.

B. Metal Fittings:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Appleton - O-Z/Gedney; Emerson Electric Co., Automation Solutions.
 - b. Republic Conduit.
 - c. Western Tube and Conduit Corporation.
 - d. Wheatland Tube Company.
 - e. Or Equal.
2. Comply with NEMA FB 1 and UL 514B.
3. Listing and Labeling: Listed and labeled as defined in CEC 2019, by a qualified testing agency, and marked for intended location and application.
4. Fittings, General: Listed and labeled for type of conduit, location, and use.
5. Fittings for EMT:
 - a. Material: Steel.
 - b. Type: compression.
6. Expansion Fittings: Steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.

- C. Joint Compound for GRC: Approved, as defined in CEC 2019, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Eaton (Crouse-Hinds).
 2. Hubbell Incorporated.
 3. Or Equal.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.

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- D. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.
- E. Nonmetallic Outlet and Device Boxes: Shall not be used.
- F. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- G. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, cast aluminum with gasketed cover.
- H. Device Box Dimensions: 4 inches square by 2-1/8 inches deep.
- I. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 1 with continuous-hinge cover with flush latch unless otherwise indicated.
 - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed Conduit: GRC.
 - 2. Concealed Conduit, Aboveground: EMT.
 - 3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
 - 4. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
- B. Indoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed, 8 feet above finished floor and higher: EMT.
 - 2. Exposed, less than 8 feet above finished floor: GRC.
 - 3. Concealed in Ceilings and Interior Walls and Partitions: EMT.
 - 4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC.
 - 5. Boxes and Enclosures: NEMA 250, Type 1.
- C. Minimum Raceway Size: 1/2-inch trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
 - 2. EMT: Use setscrew, steel fittings. Comply with NEMA FB 2.10.

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- 3. Flexible Conduit: Use only clamp-on type fittings listed for use with flexible conduit, screw-in fittings are not permitted. Comply with NEMA FB 2.20.
- E. Install surface raceways only where indicated on Drawings.

3.2 INSTALLATION

- A. Comply with requirements in Section 26 05 29 "Hangers and Supports for Electrical Systems" for hangers and supports.
- B. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter.
- C. Do not fasten conduits onto the bottom side of a metal deck roof.
- D. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- E. Complete raceway installation before starting conductor installation.
- F. Make bends in raceway using large-radius preformed ells. Field bending shall be according to CEC 2019 minimum radii requirements. Use only equipment specifically designed for material and size involved.
- G. Conceal conduit within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
- H. Support conduit within 12 inches of enclosures to which attached.
- I. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- J. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated throat metal bushings on 1-1/2-inch trade size and larger conduits terminated with locknuts.
- K. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- L. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- M. Cut conduit perpendicular to the length. For conduits 2-inch trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.

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- N. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- O. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 36 inches of flexible conduit for equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
 - 1. Use LFMC in damp or wet locations.
- P. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to center of box unless otherwise indicated.
- Q. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- R. Locate boxes so that cover or plate will not span different building finishes.
- S. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

3.3 PAINTING

- A. Exterior Raceways and Boxes: Comply with requirements for cleaning and painting of Raceways, and Boxes installed on exterior of building.

3.4 PROTECTION

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.

END OF SECTION 26 05 33