

INVITATION FOR BIDS



FOR CONSTRUCTING

RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS

CONTRACT NUMBER

C02394

ISSUED BY

CAPITAL PROJECTS ENGINEERING DIVISION

CITY OF SANTA ROSA, CALIFORNIA

2022

ATTENTION
Prebid Conference
See Page 1



STATE OF CALIFORNIA

INVITATION FOR BIDS

CONTAINING:

NOTICE TO BIDDERS

SPECIAL PROVISIONS

BID FORMS

CONTRACT

FOR

**RAILROAD DEPOT RESTROOMS ACCESSIBILITY
ALTERATIONS**

Contract No. C02394

RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS

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CITY OF SANTA ROSA
STATE OF CALIFORNIA

NOTICE TO BIDDERS

➤	For technical questions regarding this project, contact Camron Macdonald at (707) 543-3769 or email cmacdonald@srcity.org .
➤	For direct access to plans, specifications and planholders' lists, go to www.srcity.org/bids and click on <u>Bid/Proposal Opportunities</u> .
➤	For direct access to bid results, go to www.srcity.org/bids . Under Link to Capital Projects, click on <u>Capital Projects Contracts</u> .

**- IMPORTANT -
REVISED BIDDING PROCEDURES**

All bids shall be submitted and opened according to the following procedure:

Bid Acceptance Deadline

Sealed bids will be accepted at the Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, California 95401 until 2:00 p.m., November 29, 2022, for Railroad Depot Restrooms Accessibility Alterations, Contract No. C02394. (Engineer's Estimate: \$143,463).

Bids tendered after this deadline will not be accepted. The official time clock for accepting bids will be an electric date and time stamping clock, located in the Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, California. In order to be accepted, bids must be received prior to 2:00 p.m. Therefore, a bid stamped in at 1:59 p.m. will be accepted, but one delivered at or after 2:00 p.m. is late and will not be accepted.

Bid Opening

Prospective bidders, subcontractors, and materials suppliers are invited to attend the Bid opening via Zoom video/teleconference or in person at 69 Stony Circle, Santa Rosa, California. The bid opening is scheduled to be held at 2:00 p.m., November 29, 2022.

The teleconference can be accessed at:

<https://srcity-org.zoom.us/j/85102778742?pwd=TWf2U0NwdEQybHphTzRMQzIxVXhQZz09>

Phone: 877-853-5257

Meeting ID: 851 0277 8742

Passcode: 136300

Find your local number: <https://srcity-org.zoom.us/j/85102778742?pwd=TWf2U0NwdEQybHphTzRMQzIxVXhQZz09>

Project Description/Scope of Work

To provide accessibility upgrades to the Railroad Depot restrooms.

Pre-Bid Meeting Video Conference

Prospective bidders and subcontractors are **required** to attend a pre-bid meeting in person at 9 4th Street, Santa Rosa, California. The pre-bid meeting is scheduled to be held at 10:00 a.m., November 3, 2022.

Subcontractor Information; Department of Industrial Relations Registration

Bidders shall provide the names, business addresses and license numbers of all subcontractors listed on bidder's List of Subcontractors. No contractor or subcontractor may be listed on a bid for this public works project unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for this public works project unless registered with the DIR pursuant to Labor Code section 1725.5. This public works project is subject to compliance monitoring and enforcement by the DIR.

**CITY OF SANTA ROSA
C02394 RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS
ESTIMATED QUANTITIES**

Item	Description	Quantity	Unit
1	RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS	1	LS

The foregoing quantities are approximate only, being given as a basis for the comparison of bids, and the City of Santa Rosa does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, as may be deemed necessary or expedient by the Engineer.

Bids shall be made in accordance with the prevailing hourly rate of per diem wages for this locality and project as determined by the Director of the DIR pursuant to Labor Code sections 1770 *et seq.*

Contractor shall be responsible for compliance with the Immigration Reform Control Act of 1986.

If the project requires the employment of workers in any apprenticeable craft or trade, once awarded, Contractor and subcontractors must apply to the Joint Apprenticeship Council unless already covered by local apprentice standards (see Labor Code section 1777.5).

All bids are to be compared on the basis of the Engineer's estimate of the quantities of work to be performed. No bid will be awarded to a contractor who is not licensed in accordance with the provisions of Chapter 9 of Division 3 of the Business and Professions Code. Contractor must hold a Class A license for this project.

Project plans, bid and contract forms for C02394 Railroad Depot Restrooms Accessibility Alterations may be obtained through PlanetBids at www.srcity.org/bids. These documents can no longer be obtained at the Transportation and Public Works Department.

No bid will be accepted unless it is made on the contract bid forms furnished by the Transportation and Public Works Department through PlanetBids. The original of the completed bid forms bearing original signatures must be submitted. A bid will not be accepted unless the bidder registers as a vendor through PlanetBids at www.srcity.org/bids, downloads documents/attachments, and is added to the prospective bidders list for this project. If there is an addendum, bidders must log into PlanetBids and acknowledge the addendum to be eligible for bidding.

The successful bidder will be required to hold a current City of Santa Rosa business tax certificate issued pursuant to Chapter 6.04 of the Santa Rosa City Code before commencing work on this project. For information regarding the business tax, contact Revenue and Collections at (707) 543-3170.

For any moneys earned by Contractor and withheld by the City of Santa Rosa to ensure the performance of the Contract, Contractor may, at its request and expense, substitute securities equivalent to the amount withheld in the form and manner and subject to the conditions provided in Section 22300 of the California Public Contract Code.

The City of Santa Rosa reserves the right to reject any or all bids and the right to waive minor irregularities or informalities in any bid or bonds.

Lisa Welsh
Lisa Welsh (Oct 25, 2022 15:30 PDT)

Lisa Welsh
Acting Supervising Engineer

Oct 25, 2022

Date

SPECIAL PROVISIONS

General Specifications

CITY OF SANTA ROSA, CALIFORNIA

RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS

1 GENERAL

The work described herein shall be done in accordance with the "Contract Documents," which are the:

1. Special Provisions
2. Project Plans, consisting of 20 sheets entitled Railroad Depot Restrooms Accessibility Alterations, 2022-0027.
3. City of Santa Rosa Design and Construction Standards (City Standards)
4. City of Santa Rosa Construction Specifications for Public improvements (City Specifications)
5. State of California Department of Transportation Standard Specifications 2010 (Standard Specifications), and
6. State of California Department of Transportation Standard Plans 2010 (Standard Plans).

In the event of a conflict in any of these documents, the order of precedence shall be determined by Section 5-1.02 of these Special Provisions.

Whenever the Standard Specifications use the terms State of California, Department of Transportation, Director, Engineer, or Laboratory, the following terms shall be substituted therefor, and any reference to any of the foregoing terms shall be understood and interpreted to mean and refer to such substituted terms as follows:

For State of California - the City of Santa Rosa;

For Department - the City of Santa Rosa Department of Transportation and Public Works or the City of Santa Rosa Water Department;

For Director - the City Engineer of the City of Santa Rosa;

For Engineer - the City Engineer of the City of Santa Rosa or the City Engineer's authorized agents;

For Laboratory – Materials Engineering of the City of Santa Rosa Transportation and Public Works Department, or such other laboratory as may be authorized by the City.

Unless otherwise provided, whenever in these Special Provisions attention is directed to specific provisions in the Standard Specifications, such direction shall not be interpreted as excluding other applicable provisions of the Standard Specifications.

Unless otherwise provided, when sections and subsections of the Standard Specifications are used in these Special Provisions, such use is not exclusive and shall not be interpreted as excluding other applicable provisions of said sections and subsections but is only intended to add to or modify such sections or subsections.

Unless otherwise provided, full compensation for compliance with these Special Provisions is included in the contract price and no additional allowance will be made to Contractor therefor.

The Standard Specifications are hereby modified to delete any reference or incorporation of provisions providing for or requiring arbitration of any and all claims and disputes arising under this contract.

2 BIDDING

2-1.06 Bid Documents: Prospective bidders will be furnished with an Invitation for Bids which will state the location and description of the contemplated public works project and will show the approximate estimate of the various quantities and kinds of work to be performed and materials to be furnished with a schedule of items for which unit prices are requested.

2-1.07 Approximate Estimate: The quantities given in the Contract Documents are approximate only, being given as a basis for the comparison of bids, and the City does not, expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or part of the work or to omit parts of the work, as may be deemed necessary or advisable by the Engineer.

2-1.31 Examination of Project Plans, Specifications, City Standards, Invitation for Bids and Work Site: Prior to submitting a bid, the bidder shall carefully examine the Project Plans, Invitation for Bids, City Standards and the proposed work site. If any person contemplating submitting a bid for this public works project is in doubt as to the meaning of any part of the Contract Documents, or finds discrepancies in or omissions from the Contract Documents, he or she may submit a written request for interpretation or correction to the Engineer. The written request must be received by the Engineer a minimum of 96 hours prior to bid opening. Any interpretation or correction of the Contract Documents prior to bid opening will be made only by written addendum issued by the City. A copy of such addendum will be mailed or faxed to each Planholder. The City will not be bound by any other explanations or interpretations of the Contract Documents.

2-1.33 Bid Document Completion: Any references to Opt Out of Payment Adjustments for Price Index Fluctuations in the Standard Specifications are deleted in their entirety.

2-1.33A Bid Forms: All bids shall be made on bid forms obtained from PlanetBids at www.srcity.org/bids. The bidder shall submit its bid on the original bid forms furnished by the City. Bids submitted on forms other than the forms furnished to the bidder by the City will not be considered.

The bid forms to be submitted at the time of and with the bid are:

1. Unit Price Schedule
2. List of Subcontractors
3. List of Previous Similar Jobs
4. Noncollusion Declaration
5. Bid Guaranty Information and Bidder's Information and Signature
6. Bid Guaranty (Bid Bond or alternate security)

All bids shall give the proposed prices and must bear the original signature of the bidder. Bidders shall fill in all blanks on the bid forms where required. A bid will not be accepted unless the bidder registers as a vendor through PlanetBids at www.srcity.org/bids, downloads documents/attachments, and is added to the prospective bidders list for this project. If there is an addendum, bidders must log into PlanetBids and acknowledge the addendum to be eligible for bidding.

2-1.33B Registration with DIR: No contractor or subcontractor may be listed on a bid for this public works project unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for this public works project unless registered with the DIR pursuant to Labor Code section 1725.5. This public works project is subject to compliance monitoring and enforcement by the DIR.

2-1.33C Subcontractors: The Subletting and Subcontracting Fair Practices Act, Public Contract Code sections 4100-4113, inclusive (the "Act") shall apply to all subcontracts in excess of one-half of one percent of the total amount of a bid. The Act requires subcontractors, if used for such work, to be listed in the contractor's bid and prohibits the substitution of subcontractors, except as authorized by the Act. Each bidder shall, with respect to the work of any subcontractor in excess of one-half of one percent of the total amount of the bid, include as part of the bid on the bid form provided:

1. The name, business address and DIR registration number of each subcontractor who will perform work or labor or render services to the Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Project Plans or other Contract Documents in an amount in excess of one-half of one percent of the Contractor's total bid; and
2. The portion of the work that will be done by each subcontractor. Only one subcontractor shall be listed for each portion.

The purchase of sand, gravel, crushed rock, batched concrete, aggregate, ready-mixed concrete, and/or any other materials produced and furnished by established and recognized commercial plants, together with the delivery of such materials to the work site by the source of the materials or by recognized commercial hauling companies, is not considered as subcontracting under this section.

2-1.33E Rejection of Bids Containing Alterations, Erasures or Irregularities: Bids may be rejected if they show any alterations of forms, additions not called for, conditional bids, incomplete bids, erasures or irregularities of any kind.

2-1.34 Bid Guaranty: All bids shall be presented under sealed cover and shall be accompanied by cash, cashier's or certified check, or by a bidder's bond made payable to the City of Santa Rosa and executed as surety by a corporate surety authorized and admitted to transact a surety business in the State of California in an amount equal to ten percent of the amount of the bid. No bid shall be considered unless such cash, cashier's or certified check, or bidder's bond is enclosed with the bid. Any bidder's bond shall contain provisions for forfeiture consistent with California Public Contract Code section 20172.

2-1.40 Withdrawal of Bid: A bid may be withdrawn prior to, but not after, the hour fixed in the public notice for the opening of bids, provided that a written request to withdraw the bid, executed by the bidder or the bidder's authorized representative, is filed with the Engineer before this deadline. The withdrawal of a bid shall not prejudice the right of a bidder to submit a new bid.

2-1.43 Public Opening of Bids: Bids will be opened and read publicly at the time and place indicated in the Notice to Bidders. Bidders or their authorized agents are invited to be present.

2-1.46 Disqualification of Bidders: Serial bids from the same bidder will not be accepted. This section shall not be interpreted to mean that the same contractor may not be the contractor in one bid and listed as a subcontractor in another bid, provided that no collusion exists.

2-1.48 Competency of Bidders: No bid will be accepted from or contract awarded to a contractor that is not licensed in accordance with the law, that does not hold a license qualifying it to perform work under this contract, to whom a bid form has not been issued by the Engineer, or that has not successfully completed projects of similar character, scope and cost to the proposed project. Bidders will be required to provide a list of previous similar jobs with their bids.

3 CONTRACT AWARD AND EXECUTION

3-1.04 Contract Award: The City reserves the right to reject any or all bids. Bids are required for the entire work described herein. All bids will be compared with the Engineer's estimate of the quantities of work to be completed. Contract award, if any, will be made to the lowest responsible bidder within sixty days from the date bids are opened.

3-1.05 Contract Bonds:

The successful bidder will NOT be required to furnish a performance bond or material guaranty bond for this project. In the event that the contract award exceeds \$25,000.00, the successful bidder will be required to provide a payment bond for labor and materials within ten days after receipt of the Notice of Award in accordance with California Civil Code section 9550, executed in a sum of 100% of the Contract price. **A BID BOND IS REQUIRED. REFER TO SECTION 2-1.34 OF THESE SPECIAL PROVISIONS.**

The bond(s) shall be provided in a form acceptable to the City and issued by a corporate surety in good financial standing and authorized and admitted to transact a surety business in the state of California for the purposes and in the amount(s) stated above.

Whenever the financial or legal status of any surety on any such bond(s) is/are unacceptable to the City, it may make a demand to Contractor for further bond(s) or additional surety, not exceeding the sums originally required. Thereafter, no payment shall be made upon the Contract to Contractor or any assignees of Contractor until such bond(s) or additional surety has/have been provided to the City.

3-1.07 Indemnification and Insurance: Indemnification: Contractor shall defend, hold harmless and indemnify City, its officers, agents and employees, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death; damage to personal, real or intellectual property or the environment; contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with the performance of or the failure to perform the Contract by Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not such Liabilities are caused in part by a party indemnified hereunder, or such Liabilities are litigated, settled or reduced to judgment; provided, that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from (i) the sole negligence, or willful misconduct of, or defects in design furnished by City, its agents, servants, or independent contractors who are directly responsible to City (excluding Contractor), or (ii) the active negligence of City.

The existence of any of the insurance policies or coverages described in this Contract shall not affect or limit any of City's rights hereunder, nor shall the limits of such insurance limit Contractor's liability to the City hereunder. The provisions of this section shall survive any expiration or termination of the Contract.

Insurance: Contractor shall maintain in full force and effect all of the insurance coverage described in and in accordance with the insurance requirements set forth below. Maintenance of such insurance coverage during the entire performance of the Contract is a material element of the Contract. Failure by Contractor to (i) maintain or renew coverage, (ii) provide notice of any

changes, modifications, or reductions in coverage, or (iii) provide evidence of renewal, if necessary, may be deemed a material breach of the Contract by Contractor, whereas the City shall be entitled to all rights and remedies at law or in equity. Notwithstanding the foregoing, any failure by Contractor to maintain required insurance coverage shall not excuse or alleviate Contractor from any of its other duties or obligations under the Contract. In the event Contractor retains or utilizes any subcontractors or sub-consultants in performance of the work, Contractor shall assure that any such subcontractor has first obtained, and shall maintain, all of the insurance coverage requirements herein set forth below.

Insurance Requirements:

- A. Insurance Policies:** Contractor shall maintain and keep in full force and effect, the following policies of insurance with minimum coverage as indicated below and issued by insurers with an AM Best rating of no less than A-:VI or a rating otherwise acceptable to the City.

	Insurance	Minimum Coverage Limits	Additional Coverage Requirements
1.	Commercial general liability	\$ 3 million per occurrence \$ 3 million aggregate	Coverage must be at least as broad as ISO CG 00 01 and must include products liability and completed operations coverage which shall continue for a period of 365 days after acceptance of the work by the City. If insurance applies separately to a project/location, aggregate may be equal to per occurrence amount. Coverage may be met by a combination of primary and umbrella or excess insurance, but umbrella and excess shall provide coverage at least as broad as specified for underlying coverage. Coverage can be provided in the form of an endorsement to Contractor's insurance (at least as broad as ISO Form CG 20 10, 11 85 or both CG 20 10 and CG 23 37 forms if later revisions used). Coverage shall not exclude subsidence.
2.	Business auto coverage	\$ 1 million	ISO Form Number CA 00 01 covering any auto (Code 1). Insurance shall cover owned, non-owned and hired autos.
3.	Workers' compensation and Employer's Liability	\$ 1 million	As required by the State of California, with Statutory Limits and Employer's Liability Insurance with limit of no less than \$1 million per accident for bodily injury or disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.
4.	Contractor's pollution legal liability and/or asbestos legal liability and/or errors and omission (if the	\$ 1 million per occurrence or claim \$ 1 million aggregate	If the work involves lead-based paint or asbestos identification/remediation, the pollution liability policy must not contain lead-based paint or asbestos exclusions. If the work involves mold identification, the pollution liability policy must not contain a mold exclusion and a definition of

City
determines, in
its sole
discretion, that
the project
involves
environmental
hazards)

"Pollution" in said policy shall include microbial
matter including mold.

B. Endorsements:

1. All policies shall provide or be endorsed to provide that coverage shall not be canceled by either party, except after prior written notice has been provided to the City in accordance with the policy provisions.
2. Liability policies shall provide or be endorsed to provide the following:
 - a. For any claims related to this Contract, Contractor's insurance coverage shall be primary, and any insurance or self-insurance maintained by City shall be in excess of Contractor's insurance and shall not contribute with it. Endorsements at least as broad as 20 01 04 13 or evidence of policy language will be required in non-ISO CGL policies.
 - b. The City of Santa Rosa, its officers, agents and employees are to be covered as additional insureds on the CGL policy. Additional Insured Endorsements at least as broad as 20 10 04 13 or 20 38 04 13 are required.

C. Verification of Coverage and Certificates of Insurance: Contractor shall furnish City with original certificates and endorsements effecting coverage required above. Certificates and endorsements shall make reference to policy numbers. All certificates and endorsements are to be received and approved by the City before work commences and must be in effect for the duration of the Contract. The City reserves the right to require complete copies of all required policies and endorsements during the duration of the Contract and for a period of 365 days following City's acceptance of the work.

D. Other Insurance Provisions:

1. No policy required by this Contract shall prohibit Contractor from waiving any right of recovery prior to loss. Contractor hereby waives such right with regard to the indemnitees.
2. All insurance coverage amounts provided by Contractor and available or applicable to this Agreement are intended to apply to the full extent of the policies. Nothing contained in this Agreement limits the application of such insurance coverage. Coverage for an additional insured shall NOT be limited to the insured's vicarious liability. Defense costs must be paid in addition to coverage amounts.
3. Self-insured retentions above \$10,000 must be approved by the City. At the City's option, Contractor may be required to provide financial guarantees.
4. City reserves the right to modify these insurance requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

3-1.18 Contract Execution: The fully executed Contract, original bonds and insurance certificates and endorsements required under the Contract shall be delivered to the City within ten calendar days of Contractor's receipt of the Notice of Award.

The Engineer will supply Contractor with up to ten sets of the Invitation for Bids and Project Plans. At least one complete set of the Invitation for Bids and Project Plans shall be kept at the construction site in good condition and made available to the Engineer at all times. Additional copies of the Invitation for Bids and Project Plans will be provided by the Engineer at Contractor's cost.

3-1.20 Failure to Execute Contract: Contractor's failure to deliver to the City the fully executed Contract within ten calendar days of Contractor's receipt of the Notice of Award shall be cause for the cancellation of the award and the forfeiture of the bid guaranty to the City. If the successful bidder refuses or fails to execute the Contract, the City may award the Contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the Contract, the City may award the Contract to the third lowest responsible bidder. The refusal or failure by the second or third lowest responsible bidder to deliver to the City the fully executed Contract within ten calendar days of receipt of the Notice of Award to the respective bidder shall likewise be cause for the cancellation of the award and the forfeiture of the bid guaranty of the respective bidder. In its discretion, the City may then re-advertise the project or construct it by day labor.

3-1.21 Return of Bid Guarantees: Within ten days after the opening of bids, the City will return the bid guarantees to all bidders except the three lowest responsible bidders. The bid guarantees of the three lowest responsible bidders will be retained until the Contract has been fully executed. In the event all bids are rejected, all bid guarantees will be returned to the respective bidders.

3-1.22 Subcontractors: The successful bidder shall furnish a list of all subcontractors as required under Sections 2-1.33C. The list shall include the name, business address, DIR registration number and the state contractor's license number of each subcontractor on the list and the names of the responsible managing employees whose names appear on the subcontractors' licenses.

4 SCOPE OF WORK

4-1.05 Changes and Extra Work: All changes to the Contract shall be made by written change order only.

All extra work shall be recorded by Contractor on a daily report signed by both the City and Contractor. The “daily reports” shall thereafter be considered the true record of extra work performed. A copy of the daily reports will be furnished to Contractor. Contractor is directed to Section 9-1.04 of this Invitation for Bids.

4-1.05C Compensation for Altered Quantities: Payment and compensation for altered quantities shall conform to the provisions of Section 9-1.06 of the Standard Specifications, except as modified herein.

5 CONTROL OF WORK

5-1.02 Contractor's Copies of Contract Documents: In the event of a conflict in any of the Contract Documents, the order of precedence from highest to lowest shall be as follows:

1. Special Provisions
2. Project Plans, consisting of 20 sheets entitled Railroad Depot Restrooms Accessibility Alterations, 2022-0027
3. City Standards
4. City Specifications
5. Standard Specifications
6. Standard Plans

5-1.05 Order of Work: The work as shown on the Project Plans and as specified in the Invitation for Bids shall be constructed in a sequence that is satisfactory to and approved by the Engineer.

Contractor shall prepare a work schedule per Section 8-1.02 of the Standard Specifications.

With the exception of trenching, all existing street, street light base, curb and gutter, storm drain, water line, and sewer line work shall be completed before any existing street paving is removed.

Full compensation for the conformance to the requirements of this section is included in the Contract price and no additional allowance will be made to Contractor for this work.

5-1.17 Character of Workers: Contractor is directed to Section 5-1.17 of the Standard Specifications which states:

"If any subcontractor or person employed by the Contractor shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the request of the Engineer, and such person shall not again be employed on the work."

No additional compensation shall be granted to Contractor in the event City exercises any part of its rights under this section and any and all costs related to such exercise shall be borne by Contractor.

5-1.20 Cooperation with Other Entities: Attention is directed to Section 5-1.20 of the Standard Specifications.

Other construction including but not limited to utility, power, and pipe line relocation, may be in progress by other forces within and adjacent to the project area at the same time work is being performed under this Contract by Contractor.

Contractor shall cooperate with the forces performing other work, to the end that such forces may conduct their operations with as little inconvenience and delay as possible. Contractor shall grant such forces access to the project area as is reasonable and necessary to transport materials and equipment to the site of operations by the other forces.

5-1.20B(4)(a) Offsite Staging Areas and Construction Yards: Attention is directed to Santa Rosa City Code section 20-52.040, Temporary Use Permit.

A Temporary Use Permit shall be obtained for any offsite construction yard on private property to be used for any of the following:

- a. Stockpiling of equipment and/or materials;

- b. Staging of construction;
- c. Placement of work trailers or mobile offices;
- d. Storage of trench spoils; or
- e. Other construction related activities not specifically enumerated above.

5-1.26 Lines and Grades: Contractor shall carefully preserve all bench marks, grade stakes, and all other survey markers. In the case of willful or careless destruction, Contractor shall bear the cost of replacing the markers.

Contractor shall contact the Engineer directly for coordination of survey staking. Written staking requests must be submitted at least two working days in advance of the date and time stakes are needed.

5-1.27B Examination and Audit: Pursuant to California Government Code section 8546.7, any contract with the City involving expenditures in excess of \$10,000 shall be subject to the examination and audit of the California State Auditor for a period of three years after final payment is made to Contractor by City under this Contract. Any such examination and audit will be confined to those matters connected with the performance of this Contract.

5-1.30A Inspection: Contractor shall bear all costs associated with the re-inspection of any defective, rejected or unauthorized work as determined by the Engineer in Engineer's sole discretion. Such costs of re-inspection, including any costs incurred by the City for additional staff time or fees for third-party consultant inspectors, will be deducted from one or more progress payments hereunder.

5-1.36A Property and Facility Preservation: Attention is directed to Section 5-1.36 of the Standard Specifications.

At Contractor's sole expense, all fences, gates, landscaping, drainage ditches, sidewalks, irrigation systems, and any other improvements that are damaged, removed or destroyed because of Contractor's operations, shall be replaced in accordance with City Standards at a minimum and restored to the same or better condition. Concrete surface treatment and score marks shall match adjacent existing concrete improvements.

5-1.36E Obstructions: Attention is directed to Section 5-1.36 of the Standard Specifications and to the possible existence of underground gas mains, high voltage lines, telephone ducts, storm drains and water and sewers systems, the locations of which are not shown on the Project Plans. The determination of the location of these facilities and the cost of repair or replacement in the event of damage to such facilities are the sole responsibility of Contractor.

Should Contractor alter any public utility or private improvements to facilitate its operations or for its sole benefit, which alteration would not be otherwise required, Contractor shall make whatever arrangements are necessary with the owner or controlling authorities and shall bear all expenses in connection therewith. Any damages to any public utility or private improvement caused by Contractor shall be repaired by Contractor at its sole expense and to the full satisfaction of the Engineer or the controlling authority.

Any subsurface information and data furnished under any part of this Contract are not intended as a representation or warranty but are furnished for information only. It is expressly understood that the City will not be responsible for the accuracy thereof or for any deduction, interpretation or conclusion drawn therefrom by Contractor. The information is made available so that Contractor may have ready access to the same information available to the City and is not part of this Contract.

PRIOR TO STARTING ANY EXCAVATION, CONTRACTOR SHALL (AT LEAST TWO WORKING DAYS IN ADVANCE) CALL UNDERGROUND SERVICE ALERT (USA) toll free at (800) 227-2600

and provide USA with all necessary data relative to the proposed excavation. USA will accept calls and process information to participating agencies who have underground facilities in the area between the hours of 7:30 a.m. and 5:00 p.m. daily, except Saturdays, Sundays, and holidays. Between the hours of 5:00 p.m. and 7:30 a.m., calls will be recorded and then processed after 7:30 a.m. For emergency situations, after hours, and on Saturdays, Sundays and holidays, Contractor shall contact the owner of the affected facility.

Contractor shall coordinate all work with the appropriate City field personnel. When City work forces are required at the job site to perform Contract items of work, Contractor shall give a minimum of two working days advanced notification to the appropriate field office:

Water Division:	(707) 543-4200
Sewer Division:	(707) 543-4200
Street Division:	(707) 543-3880
Survey Division:	(707) 543-3834

5-1.43 Potential Claims and Dispute Resolution: "Claim" means a separate demand by Contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following: (A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by the City under the Contract; (B) Payment by the City of money or damages arising from work done by, or on behalf of, Contractor pursuant to the Contract and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled; or (C) Payment of an amount that is disputed by the City.

Upon receipt of a Claim, the City shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days, shall provide Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed, provided, the parties may extend the 45 day time period by mutual agreement.

If the City needs approval from the City Council to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the Claim, and the Council does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim, the City shall have up to three days following the next duly publicly noticed meeting of the City Council after the 45-day period, or extension expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion.

Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the City issues its written statement. If the City fails to issue a written statement, the Claim shall be deemed rejected in its entirety.

If a Contractor disputes the City's written response, or if the City fails to respond to a Claim within the time prescribed, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the City shall conduct a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the City shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the City issues its written statement. Any disputed portion of the Claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the City and the Contractor sharing the associated costs equally. The City and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

6 CONTROL OF MATERIALS

6-2.01 Source of Supply and Quality of Materials: All materials required to complete the work under the Contract shall be furnished by Contractor and shall be free of hazardous substances.

6-3.01 General: Statistical means will not be used by the City for determination of Standard Specification compliance. Whenever both operating range test results and Contract compliance requirements are specified in these special provisions, the operating range requirements shall apply to the individual test results.

6-3.01A Material Submittals: Upon award of the Contract by City, Contractor shall submit to the Engineer a list of all materials proposed to be used on this project and any supporting documentation and/or samples required and source of supply.

For material listed on the “Engineer’s List of Approved Items” which is located in the Sewer and Water sections only of the City Standards, the Engineer shall be provided with the name of the manufacturer and model/part number for all material proposed for this project, unless that item has been replaced as shown on the Project Plans or in the Invitation for Bids.

For all other materials used on this project, regardless of the type of work, Contractor shall provide to the Engineer the name of the manufacturer and model/part number along with supporting documentation and/or samples that will allow the Engineer to determine the material’s acceptability.

The Engineer reserves the right to reject any proposed material, whether on the City’s “Engineer’s List of Approved Items” or not. If the City obtains information indicating that a listed item is not performing satisfactorily or is found to be defective, that item will be rejected and Contractor shall submit a replacement for review at no additional cost to the City.

6-3.01B Material Guarantee: Before any contract is awarded, the bidder may be required to furnish samples of materials and detailed descriptions of equipment to be used in the construction of the project. The materials samples may be subjected to the tests provided for in the Standard Specifications or in this Invitation for Bids to determine their quality and fitness for the project. The successful bidder shall unconditionally guarantee project materials and workmanship for a period of one year from the date of recording of the Notice of Completion. The guarantee shall cover 100% of all costs of repairs within the one year period, including all costs of labor, materials, equipment, and incidentals. Except as may be otherwise provided in Section 3-1.05, the successful bidder shall provide a surety bond executed by a corporate surety authorized and admitted to transact a surety business in the state of California in the minimum amount of one-half of the Contract price to cover this guarantee.

6-3.05 Quality Assurance: California Test 216 (Relative Compaction) testing will be modified as follows: A mechanical compactor (Ploog Engineering Co. Model M 100 or equivalent) with 10-pound hammer and split compaction molds shall be used in lieu of the specified manual compaction equipment.

California Test 231 (Nuclear Gage Determination of In-Place Density) will be modified as follows: In-place density and relative compaction may be determined on the basis of individual test sites in lieu of the area concept, at the discretion of the Engineer.

6-4 Water Utility

6-4.01A Construction Water: All water required for the performance of the work shall be provided by Contractor. Prior to obtaining water from the City’s water system, Contractor shall obtain a Water

Use Permit from the City of Santa Rosa Water Department and rent a hydrant or bridge meter. Contractor is responsible for the cost of all water and the cost of all deposits, permits and fees.

Contractor is prohibited from operating gate valves or fire hydrants on the City system.

The acquisition of water from the City's water system through un-metered hydrants or other facilities is a violation of City ordinance and State law. The use of water from sources other than the City's water system must be approved by the Engineer in advance of the use.

Citations and fines will be levied for violation of these and other utility regulations and deductions will be made from payments consistent with Section 7-1.02A(1) of the Standard Specifications.

6-4.01B Water Utility Notification: Contractors or parties requiring work of any kind by the City of Santa Rosa Water Department forces shall request such services a minimum of 48 hours in advance of the time such services are desired. Work requests which will involve the City of Santa Rosa Water Department forces for more than eight hours or an extensive number of City parts shall be requested a minimum of seven calendar days in advance.

If it is necessary to terminate or disrupt utility service to any customer, Contractor shall make the request for such work by City forces an additional 72 hours (three additional working days for a total of five working days advance notice) in advance of the time such services are desired to allow affected customers a minimum of 72 hours' notice. Contractors who fail to keep field appointments will be billed for scheduled City of Santa Rosa Water Department crew standby time which was used and the Contractor shall bear the costs incurred by the City of Santa Rosa's Water Department for re-notification of customers.

City of Santa Rosa Water Department crews work a 9/80 schedule. This schedule may prohibit shutdowns for tie-ins on alternating Fridays. After hours work or weekend work may be performed if prior authorization from the Engineer is obtained.

Other than the hours specified in this Invitation for Bids, requests by Contractor for after hours or weekend work is to be avoided whenever possible. Any overtime costs incurred by City for such work shall be borne by Contractor.

Interruption of utilities service to commercial customers shall be coordinated with the customer to minimize disruption to the enterprise to the greatest extent practicable. After notification by the Contractor of the need, the City of Santa Rosa Water Department will contact all commercial customers and inform Contractor accordingly.

6-4.01C Water Facility Damage: All damage caused to the City's water system shall be immediately reported to the Engineer.

Damage caused to the City's water system by Contractor's operations shall be repaired by the Contractor at Contractor's sole expense in a manner satisfactory to the City of Santa Rosa Water Department. Such repairs shall not be charged to the City or any City project. All repair work shall be witnessed and approved by the City of Santa Rosa Water Department prior to backfilling the excavation. The City will require re-excavation if backfilling occurs prior to inspection, which costs shall be borne by Contractor.

Contractor is responsible for, at its sole cost and expense, the repair and remediation of damage to property and facilities caused by any of the following circumstances:

- a. Contractor fails to make a written request for a markout or begins excavation without providing the City of Santa Rosa Water Department a reasonable opportunity to mark facilities;
- b. Contractor destroys markouts;
- c. Contractor fails to perform hand digging or probing for utilities near markouts; or
- d. Contractor fails to use reasonable caution, regardless of whether markouts are present or clear. Reasonable caution includes any efforts to avoid damaging existing facilities, such as when excavating in the vicinity of water mains.

City may, in its discretion, opt to make the repairs for which Contractor is responsible with its own forces. In such cases, the repairs will be made at Contractor's expense in accordance with the emergency repair rate schedule of the City of Santa Rosa Water Department. The City may make repairs whenever restoration of service requires extraordinary speed or special equipment. Contractor will be billed accordingly and City shall have the right and option to withhold payment hereunder, or a portion thereof, for any such costs billed but not promptly paid by Contractor.

6-4.02 Salvage: All valves, hydrants, and other appurtenances of the water system that are the property of City and removed by Contractor shall be delivered to the City's Municipal Services Center (55 Stony Point Road) unless Contractor has obtained specific written approval from the City of Santa Rosa Water Department to otherwise dispose of the materials.

6-4.03 Trade Names and Alternatives: Unless otherwise specified, material and equipment specifications that identify a particular patent, trade name or manufacturer, may be satisfied through substitute materials and equipment accepted by the City. Contractor may offer substitute materials and equipment of equal or better quality to the City. Any such offer shall be made in writing to the Engineer at least four weeks in advance of the time Contractor wishes to order the materials or equipment. Contractor shall include sufficient data which, together with any other information the Engineer may require, will enable the Engineer to determine the acceptability of the materials and equipment. When the substitute materials or equipment necessitate changes to any part of the work, the information shall include drawings and details showing all such changes and Contractor shall perform these changes as a part of any acceptance of substitute materials or equipment. The use of substituted materials and equipment will be permitted only after written acceptance of the materials and equipment by the Engineer. Such acceptance shall not relieve the Contractor from full responsibility for the sufficiency, quality and performance of the substitute materials and equipment.

The City will not, under any circumstances, acknowledge or consider any offers to accept substitute materials or equipment between the dates of public notice of advertisement and the bid opening.

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

7-1.02A(1) Forfeitures for Health and Safety Violations: Contractor shall comply with all applicable provisions of the Santa Rosa City Code and any failure to do so shall constitute a breach of the Contract. In the event of any violation of the Santa Rosa City Code that may impact public health and safety, including, but not limited to Chapter 17-12, "Storm Water" and Chapter 13-04, "Street Encroachments," City shall have the right to impose a charge against Contractor in an amount equal to \$500.00 per violation per day. Prior to the imposition of any charge hereunder, City shall first provide a written notice to Contractor of the violation and setting forth a reasonable period of time for Contractor to cure the violation(s). In the event Contractor fails to cure any such violation within the time provided, City shall have the right, in addition to all other rights and remedies available to City, to deduct and withhold as a permanent forfeiture by Contractor the appropriate amounts from any payment otherwise due Contractor under this Contract.

7-1.02K(2) Wages: Pursuant to Labor Code sections 1770 *et seq.*, each laborer or mechanic of Contractor or any subcontractor engaged in work on the project under this contract shall be paid not less than the hourly wage rate of per diem wages set forth in the prevailing wage rate schedule published by the Director of Industrial Relations, regardless of any contractual relationship which may be alleged to exist between Contractor or any subcontractor and such laborers and mechanics. A copy of the schedule of prevailing wage rates can be obtained online at www.dir.ca.gov or from the Department of Transportation and Public Works at 69 Stony Circle, Santa Rosa.

Any laborer or mechanic employed to perform work on the public works project under this Contract, which work is not covered by any of the foregoing classifications, shall be paid not less than the prevailing wage rate of per diem wages specified herein for the classification which most nearly corresponds to the work to be performed by the worker.

The foregoing specified prevailing wage rates are minimum rates only, and Contractor may pay any wage rate in excess of the applicable rate.

Pursuant to Labor Code Section 1775, Contractor as a penalty to the owner shall forfeit not more than \$200.00 for each calendar day, or a portion thereof, for each worker paid less than the prevailing wage rate established by the Department of Industrial Relations for such work or craft in which such worker is employed. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which the worker was paid less than the prevailing wage rate shall be paid to each worker by Contractor.

Contractor shall only provide prevailing wage reports upon written request from City. When requested, these prevailing wage reports must be redacted by the Contractor prior to providing them to City.

7-1.02K(4) Apprentices: Contractor agrees to comply with Chapter 1, Part 7, Division 2, sections 1777.5 *et seq.* of the California Labor Code. These sections require contractors and subcontractors to employ apprentices in apprenticeable occupations in a ratio of not less than one hour of apprentice work for each five hours of journeyman work (unless an exception is granted in accordance with Section 1777.5), and the contractors and subcontractors shall not discriminate among otherwise qualified employees as apprentices solely on the ground of sex, race, religion, creed, national origin, ancestry, or color. Only apprentices as defined in Labor Code section 3077, who are in training under apprenticeship standards and who have written apprentice agreements will be employed on public works in apprenticeable occupations. The responsibility for compliance with these provisions is fixed with the prime contractor for all apprenticeable occupations.

7-1.02K(6)(a)(1) Notice to Vendors: Attention is directed to the current OSHA Standards. All equipment, tools and materials which are furnished and/or installed as part of this Contract shall meet or exceed the aforementioned standards in order to be considered acceptable.

7-1.02K(6)(b) Excavation Safety: When the digging or excavation occurs during project construction, Contractor shall:

- a. Promptly notify City in writing of the following conditions before any such conditions are disturbed:
 1. Material that the Contractor believes may be hazardous waste as defined in Health and Safety Code section 25117 that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law;
 2. Subsurface or latent physical conditions at the site differing from those indicated in the Invitation for Bids; and
 3. Physical conditions at the site of any unusual nature, materially different from those ordinarily encountered and generally recognized as inherent in the type of work under the Contract.
- b. The City will investigate the conditions and will issue a change order under the terms of the Contract if it finds that the conditions warrant it.
- c. If a dispute arises between City and Contractor as to whether a change order is warranted, Contractor shall not be excused from any scheduled completion date provided for in the Contract but shall proceed with all work to be performed under the Contract.

7-1.02K(6)(b)(1) Trench Excavation Safety Plans: When the estimated cost for the excavation of any trench or trenches five feet or more in depth will exceed \$25,000.00, Contractor shall submit to the Engineer in advance of excavation a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards established by the construction safety orders, or if the trench is anticipated to be greater than 20 feet, the plan shall be prepared by a registered civil or structural engineer.

A permit to do the above described work shall be obtained from the State of California, Division of Industrial Safety. Proof of such permit shall be submitted to the Engineer prior to starting the trench work.

Full compensation for complying with the provisions of this section shall be considered as included in the Contract price and no additional allowance will be made for the work.

7-1.02K(6)(d) Confined Space Safety: Any confined space entry for this project, including but not limited to manhole or water storage tank entry, will require a confined space entry permit pursuant to Cal/OSHA regulations as set forth in title 8 California Code of Regulations (CCR) sections 5157 or 5158. Confined space entry shall have the meaning ascribed in title 8 CCR sections 5157 and 5158. For any confined space entry for construction operations regulated by title 8 CCR section 1502, Contractor shall comply with title 8 CCR section 5158, "Other Confined Space Operations." For any other confined space operations, Contractor shall comply with title 8 CCR section 5157, "Permit-Required Confined Spaces."

Attention is directed to the technical specifications in the Special Provisions for information regarding entry to any City maintained confined space. Pursuant to title 8 CCR section 5157, Contractor is required to obtain any available information regarding hazards and operations for any City maintained confined spaces. The City maintained Confined Space Entry Manual is available

for viewing at the City of Santa Rosa Water Department or Transportation and Public Works Department office at 69 Stony Circle, Santa Rosa.

Contractor shall immediately inform the Engineer of any previously unidentified hazards confronted or created during confined space entry.

7-1.02L(2)(a) Patents and Royalties: All fees, royalties, or claims for any patented invention, article, process or method that may be used upon or in any manner connected with the work under this Contract shall be paid by Contractor. Contractor and its sureties shall protect and hold harmless City and its officers, agents, and employees from any and all demands made for such fees royalties or claims brought or made by any third party, and before the final payment is made on the account of the Contract, Contractor shall, if requested by City, furnish acceptable proof of a proper release from all such claims and liabilities.

Should Contractor, its officers, agents, or employees, or any one of them be enjoined from furnishing or using any invention, article, material, or plans supplied or required to be supplied or used under the Contract, Contractor shall promptly substitute other articles, materials, or appliances in lieu thereof of equal efficiency, quality, finish, suitability, and market value, and satisfactory in all respects to the Engineer. In the event that the Engineer elects, in lieu of such substitution, to have supplied and to retain and use any such invention, article, materials, or plans as may be required to be supplied by the Contract, Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary for City, its officers, agents, and employees, or any one of them to use such invention, article, materials, or appliance without being disturbed or in any way interfered with by any proceeding in law of equity on account thereof. Should Contractor neglect or refuse to make the substitution promptly or to pay such royalties and secure such licenses as may be necessary, then in that event the Engineer shall have the right to make such substitutions or City may pay such royalties and secure such licenses and charge Contractor even though final payment under the Contract may have been made.

7-1.02M(3) Mined Materials: California Public Contract Code section 20676 prohibits surface mining operators which are subject to the Surface Mining and Reclamation Act of 1975 (SMARA) from selling California mined construction material to the City unless the operator is identified in a list referred as the **3098 List**. The List, which is maintained by the Department of Conservation's Office of Mine Reclamation (OMR), changes throughout the year and can be viewed at the OMR website: http://www.consrv.ca.gov/OMR/ab_3098_list/index.htm. To confirm whether or not a specific operator is on the List at any given time, Contractor shall call the OMR at (916)323-9198.

7-1.03A Maintaining Traffic: Attention is directed to Sections 7-1.04 of the Standard Specifications and to the following modifications thereof.

If construction is within City owned right-of-way, provisions shall be made for the safe passage of public traffic through the work site at all times consistent with the requirements of Santa Rosa City Code Chapter 13-04.

Except for projects to be performed under a minor contract, Contractor shall install and maintain project identification signs at each end of the project or as directed by the Engineer two weeks prior to any construction activity. City shall furnish the appropriate sign panels upon request from Contractor. To mount the sign panels, Contractor shall furnish and install 4" X 4" posts or mount by other appropriate methods as approved by the Engineer. These sign panels shall be returned to the City Corporation Yard at 55 Stony Point Road after completion of the project.

Two weeks prior to any construction activity, advance notice signs for road closures shall be furnished and installed by Contractor at each end of the project and shall remain in place throughout the duration of the subject closure. Details of panel construction and lettering shall be approved by the Engineer.

Contractor shall furnish, install, and maintain at its expense all barricades, signs, lights, and other devices necessary to adequately warn of any obstructions to the traveled and pedestrian way and provide flaggers as necessary for the safety of public traffic and pedestrians and to provide access to property adjacent to the work site and Contractor shall comply with the Americans with Disabilities Act of 1990 (42 U.S.C. 12101, *et seq.*) (ADA) and any regulations and guidelines issued pursuant to the ADA.

Contractor shall comply with the current edition of the California Manual of Uniform Traffic Control Devices (CA MUTCD) for all items related to traffic within the work site.

Rain and other occurrences that may cause the suspension or delay of the work shall in no way relieve Contractor of its responsibility to provide traffic control and public access through the work site as specified herein. At all times, Contractor shall keep at the work site such materials, forces and equipment as may be necessary to keep roads, streets, and driveways within the work site open to traffic and in good repair and shall expedite the passage of such traffic, using such forces and equipment as may be necessary.

Should Contractor fail, in the opinion of the Engineer, to provide all the materials, forces and equipment necessary to maintain traffic through the work site as set forth herein, City may take steps necessary to remedy any such failure, including but not limited to causing such work to be performed and/or suspending any further work under the Contract. Any such remedial cost and expense incurred by the City, plus an administrative charge of 15%, shall be immediately due and payable by Contractor and may be deducted from any amounts owed to Contractor hereunder. In the event there are insufficient sums owed to Contractor hereunder to cover the foregoing costs and charges, City shall have the right to pursue any other remedy to recover the same, including but not limited to, proceeding against any surety or bond in favor of City. City's rights under Section 7-1.02 are intended to be in addition to and not in lieu of any charges imposed by City against Contractor under Section 7-1.02A(1) above for violations of the Santa Rosa City Code.

Contractor shall be responsible for informing emergency response agencies operating within the area of the work of obstructions to either public or private roads caused by reason of Contractor's operations hereunder.

Contractor shall make provisions for the safe passage of pedestrians around the project work site at all times.

8 PROSECUTION AND PROGRESS

8-1.01A Assignments: Once awarded, this Contract shall not be transferred, assigned, or sub-contracted, except as herein expressly provided without the prior written consent of the City in the City's sole and absolute discretion. See Section 5-1.12 of the Standard Specifications.

8-1.04B Standard Start: Contractor shall begin work within ten calendar days after the date authorized in the Notice to Proceed, but not prior to January 3, 2023, and shall diligently prosecute the Contract to completion before the expiration of:

50 WORKING DAYS

8-1.05 Time: Working days will be counted beginning with the day the Contractor begins work or with the tenth day after the date authorized in the Notice to Proceed, whichever occurs first.

Unless otherwise directed by Engineer, Contractor shall not conduct any activities that generate noise earlier than 8:00 a.m. or later than 5:30 p.m.

8-1.10 Liquidated Damages: Contractor hereby agrees that Contractor shall pay to the City liquidated damages for each and every calendar day delay over and above the number of working days prescribed above for finishing the work in the amount shown in Section 8-1.10 of the Standard Specifications.

9 MEASUREMENT AND PAYMENT

9-1.04 Force Account Work: All work done on a force account basis shall be recorded daily on report sheets prepared by Contractor and signed by both the Engineer and Contractor. Such reports shall thereafter be considered the true record of force account work performed during the project. Such reports shall be furnished to the Engineer and a copy retained by Contractor.

All extensions of labor, equipment, and material costs shall be completed by Contractor and submitted to the Engineer within 30 days of the completion of the extra work. Completed and extended extra work reports received later than the times herein prescribed may be deemed invalid and rejected without payment at the discretion of the Engineer.

9-1.07 Payment Adjustments For Price Index Fluctuations: Any references to Opt Out of Payment Adjustments for Price Index Fluctuations in the Standard Specifications are deleted in their entirety.

9-1.16 Progress Payments: Once each month for progress pay purposes, the City will prepare a written estimate of the total amount of completed work and accepted materials purchased by Contractor but not installed. The City shall retain five percent of such estimated value of the completed work and the unused materials and pay Contractor the balance after deducting all previous payments and all sums to be retained under the provisions of the Contract. No such estimate or payment shall be required to be made when, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract or when, in the Engineer's judgment, the total value of the completed work since the last estimate is less than \$500.00. No such estimate or payment shall be construed to be an acceptance of any defective work or improper materials.

After Contract acceptance, the Engineer will prepare a written proposed final estimate of the proposed final quantities of work completed under the Contract and the value of such work and will submit such estimate to Contractor. The City shall retain five percent of such estimated value of the work done and shall pay to Contractor the balance after deducting all amounts to be retained under the provisions of the Contract.

The City may, at its option and at any time, retain out of any amounts due Contractor sums sufficient to cover any unpaid claims of City or others, provided that sworn statements of all non-City claims shall have been filed with the Director of Finance.

9-1.16E(6) Substitution of Securities for Withheld Amounts: Pursuant to Public Contract Code section 22300, securities may be substituted for any moneys withheld by City to ensure performance under this Contract, provided that substitution of securities provisions shall not be required in contracts in which there will be financing provided by the Farmer's Home Administration of the United States Department of Agriculture pursuant to the Consolidated Farm and Rural Development Act (7 USC sections 1921 *et seq.*), and where federal regulations or policies or both do not allow the substitution of securities. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the City, or with a state or federally chartered bank as the escrow agent, which shall then pay such moneys to Contractor. The Director of Finance is authorized to execute substitution of securities agreements on behalf of the City. The City will return the securities to Contractor upon satisfactory completion of the Contract as determined by City in its sole discretion and the resolution of all outstanding claims against the securities. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

Securities eligible for investment under this section shall include those listed in Government Code section 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit or any other security mutually agreed to by Contractor and the

City, provided that the substituted security is equal to or not less than five percent of the Contract amount.

Security substitutions must be submitted by Contractor and approved by City prior to the time of the first progress payment to be made under the Contract. No other method of substituting securities for retention will be accepted. The security substitution shall be done only upon execution of an agreement satisfactory to City which includes the following provisions:

- a. The amount of securities to be deposited;
- b. The terms and conditions of conversion to cash in case of the default of Contractor; and
- c. The procedure for return of securities upon completion of the Contract.

9-1.17D Final Payment and Claims: The processing of payment of the final estimate shall not be commenced less than 35 days after the date of recording of the Notice of Completion with the County Recorder's Office. Contractor is advised that it takes approximately ten days for a check to be issued following a request for payment.

Contractor shall submit its written statement of all claims for additional compensation under the Contract to the Engineer within 15 days after submission to Contractor of the proposed final estimate.

If Contractor does not file a claim within the 15 day period, or upon Contractor's approval, the Engineer will issue a final written estimate and the City shall pay to Contractor the entire sum due after deducting all previous payments, if any, and all amounts to be retained under the provisions of the Contract.

If Contractor files a claim within the 15 day period, the Engineer will furnish a semi-final estimate and pay the amount due under the semi-final estimate within 30 days. The semi-final estimate is conclusive as to the amount payable except as may be affected by claims and any amount retained. The Engineer shall then consider and investigate such claim and shall make such revision in the final quantities as the Engineer may find to be due and shall then make and issue a final written estimate. The City will pay the amount due, after deducting all previous payments, if any, and amounts to be retained under the provisions of the Contract.

Any and all prior partial estimates and payments shall be subject to correction in the final estimate and payment.

The final estimate shall be conclusive and binding against both parties to the Contract on all questions relating to the performance of the Contract and the amount of work done thereunder and compensation therefor, except in the case of gross error.

9-1.17D(3) Final Determination of Claims: Claims filed by Contractor shall be in sufficient detail to enable the Engineer to determine the basis and amount of the Claims. Contractor shall also furnish reasonable documentation to the City to support Claims. If additional information is required by the Engineer, Contractor shall provide such information to the Engineer no later than the 15th day after receipt of the written request from the Engineer. If the 15th day falls on a weekend, holiday, or day City offices are closed, then the information shall be provided to the Engineer no later than close of the next business day. Failure to submit the requested information to the Engineer within the time specified will be sufficient cause for denying the Claim.

Contractor shall keep full and complete records of the costs and additional time incurred for any work for which a claim for additional compensation is made. The Engineer or any designated Claim investigator or auditor shall have access to those records and any other records as may be reasonably required by the Engineer to determine the facts or contentions in each Claim. Failure to grant access to such records shall be sufficient cause for denying the Claims.

9-1.22 Arbitration: Any references to Arbitration in the Standard Specifications are deleted in their entirety.

Claims submitted by Contractor shall be accompanied by a notarized certificate containing the following language:

Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code sections 12650 *et seq.*, the undersigned,

_____,
(Name)

_____ of
(Title)

(Contractor)

hereby certifies that the claim for additional compensation made herein is supported by a true statement of the actual costs incurred and time expended on this project and is fully documented by records maintained by Contractor.

Dated _____

/s/ _____

Subscribed and sworn before me this _____ day of

Notary Public

My Commission Expires _____

Failure to submit the notarized certificate will be sufficient cause for denying the claim.

Any claim for overhead expenses, in addition to being certified as stated above, shall be supported by an audit report of an independent Certified Public Accountant. Any such overhead claim shall also be subject to audit by the City at its discretion.

Any costs or expenses incurred by the City in reviewing or auditing any claims that are not supported by Contractor's cost accounting or other records shall be deemed to be damages incurred by the City within the meaning of the California False Claims Act.

**CITY OF SANTA ROSA
RAILROAD DEPOT
RESTROOM
ACCESSIBILITY
ALTERATIONS**

**PROJECT
MANUAL**

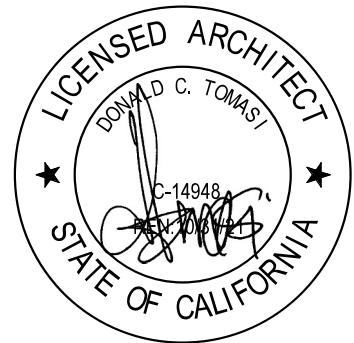
PROJECT ADDRESS
**9 Fourth Street
Santa Rosa, CA 95401**

OWNER
**City of Santa Rosa
Transportation & Public Works
69 Stony Circle, Santa Rosa, CA
95404**

**PROJECT
MANUAL**

SECTION 00001
COVER PAGE

TLCD PROJECT NUMBER
20037.00



PROJECT MANUAL
INCLUDING SPECIFICATIONS
FOR
CONSTRUCTION
FOR THE
**RAILROAD DEPOT RESTROOM
ACCESSIBILITY ALTERATIONS**

**9 FOURTH STREET
SANTA ROSA, CA 95401**

CITY OF SANTA ROSA

ARCHITECT
TLCD ARCHITECTURE
520 Third Street, #250
Santa Rosa, California 95401
T: 707.525.5600

JULY 25, 2022

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Not used.

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Not used.

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Not used.

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Not used.

DIVISION 13 – SPECIAL CONSTRUCTION

Not used.

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Not used.

DIVISION 21 – FIRE SUPPRESSION

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Section 23 00 00 Heating and Venting Systems Design/Build

DIVISION 26 – ELECTRICAL

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END OF SECTION

SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Project consists of construction of the Santa Rosa Railroad Depot Restrooms, 9 Fourth Street, Santa Rosa, California 95401 for the City of Santa Rosa, as indicated in Contract Documents.
 - 1. Items noted "NIC" (Not in Contract) will be furnished and installed by Owner or under separate contract.
 - a. Hazardous Materials Removal: Where materials suspected as being hazardous are encountered, inform Owner immediately. Work directly with Owner relating to hazardous materials.
 - 1) Architect shall not be involved in determination, removal, or disposal of hazardous materials.
 - 2. Owner reserves right to remove and retain possession of existing items prior to start of Contract.

1.2 REQUIREMENTS INCLUDED

- A. This section includes administrative provisions:
 - 1. Work sequence.
 - 2. Contractors' use of premises.
 - 3. Building occupancy.
 - 4. Lines and levels.
 - 5. Regulatory requirements and reference standards.
 - 6. Owner furnished Contractor installed (OFCI) products.

1.3 WORK SEQUENCE

- A. Coordinate construction schedule and operations with Owner and Architect.
 - 1. Construct Work to accommodate Owner's occupancy requirements during construction period.

1.4 CONTRACTORS USE OF PREMISES

- A. Limit use of premises for Work and construction operations and to allow for:
 - 1. Building occupancy.
 - 2. Work by other contractors.
 - 3. Authorized access to restricted areas.
 - 4. Public access to public areas.

- B. Coordinate use of premises and access to site under direction of Owner or Architect.

1.5 BUILDING OCCUPANCY

- A. Building will be occupied during construction for conduct of normal operations; cooperate with Owner to minimize conflict and to facilitate building operations.

1.6 LINES AND LEVELS

- A. Establish lines and levels by use of recognized engineering practices.
- B. Locate and protect control and reference points.

1.7 REGULATORY REQUIREMENTS AND REFERENCE STANDARDS

A. Regulatory Requirements:

1. Architect has contacted governing authorities and reviewed design requirements of local, state, and federal agencies for applicability to Project.
2. Contractor shall be responsible for contacting governing authorities directly for necessary information and decisions bearing upon performance of Work.

B. Reference Standards:

1. For Products specified by association or trade standards, comply with requirements of referenced standard, except when more rigid requirements are specified or are required by applicable codes.
2. Applicable date of each standard is that in effect as of date on proposal or date on Contract where no proposal is available, except when a specific date is specified.

1.8 OWNER FURNISHED CONTRACTOR INSTALLED (OFCI) PRODUCTS

A. Select products are to be furnished and paid for by Owner and installed by Contractor:

1. Refer to Drawings and Specifications.

B. Owner's Responsibilities:

1. Arrange for and deliver shop drawings, product data, and samples to Contractor.
2. Arrange and pay for product delivery to site.
3. Inspect products jointly with Contractor on delivery.
4. Submit claims for transportation damage.
5. Arrange for replacement of damaged, defective, or missing items.
6. Arrange for manufacturer's warranties, inspections, and service.

C. Contractor's Responsibilities:

1. Review shop drawings, product data, and samples.
2. Receive and unload products at site.
3. Inspect jointly with Owner for completeness and damage.
4. Handle, store, and install products.
5. Finish products as required after installation.
6. Repair or replace items damaged by Work of this Contract.

END OF SECTION

SECTION 01 23 00

ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes a description of alternate work.
- B. Related Requirements:
 - 1. Pricing Documents: Quotation of cost of each alternate.
 - 2. Owner-Contractor Agreement: Alternates accepted by Owner for incorporation into the Work.
 - 3. Sections of Specifications identified in each Alternate.

1.2 PROCEDURES

- A. Alternates will be exercised at Owner's option.
- B. Coordinate Related Work: and modify surrounding work as required to complete Work, including changes under each alternate, when acceptance is designated in Owner-Contractor Agreement.

1.3 ALTERNATES

- A. Alternates: To be determined.

END OF SECTION

SECTION 01 25 00

SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. General: Procedures are described for requesting substitution of unlisted materials in lieu of materials named in Specifications or approved for use in addenda.
 - 1. Provide products listed in Contract Documents, products by manufacturers listed in Contract Documents, and products meeting specified requirements.
 - a. Contract Amount: Base on materials and products included in Contract Documents.
 - b. Where materials and products are listed in Contract Documents, materials and products by manufacturers not listed shall not be used without Owner's and Architect's approval of Contractor's written request for substitution after the contract for construction has been awarded using the Submittal process.
 - 2. Purpose: After the contract for construction has been awarded, substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to no fault of Contractor.
 - 3. Purpose: Substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to conditions beyond Contractor control.
 - a. Owner benefits either from a Contractor proposed reduction of the Contract amount or from a reduction in Contract time based on acceptance of proposed substitution.
 - b. List proposed cost or time reductions on request for substitution.
 - c. Requests not including a proposed cost or time reduction will not be considered unless Contractor submits supporting information indicating specified materials are not available.
- B. Related Sections:
 - 1. Section 01 60 00: Product requirements.

1.2 SUBSTITUTIONS

- A. Architect will consider formal requests for substitutions only from the Contractor through the Submittal process as specified in 1.1 Summary.
 - 1. Owner and Architect will consider only one request for substitution for each material; where requests are denied Contractor shall be required to provide specified materials.

2. Requests will be considered only when a product becomes unavailable through no fault of Contractor; more than one request for substitution will be considered if necessary.
- B. Submit each request with sequentially numbered "Substitution Request Transmittal" acceptable to Owner and Architect; submit separate request for each product and support each request with:
 1. Product identification with manufacturer's literature and samples where applicable.
 2. Name and address of similar projects on which product has been used, and date of installation.
 - C. Submit itemized comparison of proposed substitution with product specified and list significant variations.
 - D. Submit data relating to changes in construction schedule.
 - E. Note effect of substitution on other work, products, or separate contracts.
 1. Note if acceptance of substitution could require revision of Contract Documents, Drawings, details, or Specifications.
 - F. Include accurate cost data comparing proposed substitution with product and amount of net reduction in Contract price.
 1. Include costs to other contractors and costs for revisions to Drawings, details or Specifications.
 - G. Substitutions will not be considered for acceptance when:
 1. They are indicated or implied on submittals without a formal request from Contractor.
 2. They are requested directly by a subcontractor or supplier.
 3. Acceptance will require substantial revision of Contract Documents.
 - H. Substitute products shall not be ordered without written acceptance of Owner and Architect.
 - I. Owner and Architect will determine acceptability of proposed substitutions and reserves right to reject proposals due to insufficient information.

1.3 CONTRACTOR'S REPRESENTATION

- A. Requests constitute a representation that Contractor:
 1. Has investigated proposed product and determined it meets or exceeds, in all respects, specified product.
 2. Will provide same warranty or longer warranty for substitution as for specified product.
 3. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.

4. Waives claims for additional costs that subsequently become apparent.
5. Will pay costs of changes to Contract Documents, Drawings, details, and Specifications required by accepted substitutions.

1.4 ARCHITECT'S DUTIES

- A. Review Contractor's requests for substitutions with reasonable promptness.
 1. Architect will recommend that Owner accept or reject substitution request.
 2. Upon request, Architect will provide cost for changes to Contract Documents, Drawings, details, and Specifications required for substitutions.
- B. Notify Contractor in writing of decision to accept or reject requested substitution.

END OF SECTION

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes general procedural requirements for ongoing submittals.
 - 1. Construction progress schedules.
 - 2. Schedule of values.
 - 3. Product data and manufacturer's literature.
 - 4. Shop drawings.
 - 5. Samples.
 - 6. Manufacturers' certificates.
 - 7. Excess materials and attic stock.
 - 8. Design build (delegated design) procedures.
- B. Related Requirements:
 - 1. Section 01 40 00: Test reports, manufacturer's field reports, and mock-ups.
 - 2. Section 01 70 00: Manufacturers' instructions.
 - 3. Section 01 77 00: Closeout requirements including Project Record Documents.
 - 4. Section 01 78 00: Warranties.

1.2 GENERAL SUBMITTAL PROCEDURES

- A. Submittals: Transmit each item using form approved by Architect; submit sample to Architect for approval prior to use.
 - 1. Identify Project, Contractor, subcontractor, major supplier.
 - a. Attach sequential identification number for each new submittal.
 - b. Identify each resubmittal using original submittal number and sequential identification clearly indicating item is resubmitted.
 - 2. Identify pertinent Drawing sheet and detail number, and Specification section number as appropriate.
 - 3. Identify deviations from Contract Documents.
 - 4. Provide space for Contractor and Architect review stamps.
 - 5. Contractor: Review and stamp submittals from subcontractors prior to submitting to Architect.
 - a. Review submittals and indicate where conflicts occur with Contract Documents and with work of other subcontractors.

- b. Return submittals that vary significantly from Contract Documents for correction and resubmittal prior to submitting to Architect.
 - c. Submittals that vary significantly from Contract Documents and that fail to indicate thorough Contractor review prior to submission to Architect will be returned without review.
 - d. cursory review and stamping of subcontractor submittal by Contractor shall not be acceptable.
- B. Initial Schedules: Submit initial progress schedule and schedule of value in duplicate within 5 working days after Notice to Proceed.
 - 1. After review by Owner and Architect revise and resubmit where required.
- C. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- D. After Architect review of submittal, revise and resubmit as required, identify changes made since previous submittal.
 - 1. Submittals Requiring Architect Response: Allow reasonable time for Architect review as well as time for preparation of resubmittals where required by Architect.
 - a. Do not delay submittals and do not consider Architect review time as part of Project schedule as multiple submittals and reviews may be required.
- E. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply.

1.3 TYPES OF SUBMITTALS

- A. General: Project requires various types of submittals to maintain communications, minimize misunderstandings, avoid unnecessary conflicts, and to ensure complete documentation for Project Record Documents.
 - 1. Maintain complete set of submittals including required revisions.
- B. Construction Schedules: Submit construction progress schedules for Design Team and Owner review and to maintain entire team up to date on construction activities.
- C. Schedule of Values: Submit Schedule of Values indicating division of Work, subcontractors to perform work, products being used, and values attributed to each to inform Design Team and Owner.
- D. Action Submittals: Submittals relating to product data and manufacturer's literature, shop drawings, and samples for Design Team review and comment; do not begin fabrication, delivery, or installation until Design Team review is complete.

- E. Information Submittals: Submittals relating to certifications, qualifications, reports, including test reports, and instructions are for information; Design Team may choose to comment but action is not generally anticipated.
 - 1. Manufacturer installation instructions and recommendations shall be considered information submittals.
- F. Design/Build Submittals: Where portion of Work requires design by specialized professionals submit information necessary to ensure work complies with Contract Documents along with certifications signed by qualified professional.
 - 1. Calculations: Do not submit calculations unless specifically required by Contract Documents; submit calculations required by code directly to authorities having jurisdiction.
 - a. Submit certification by qualified professional indicating required calculations have been prepared and work conforms to Contract Documents and applicable codes and regulations.
- G. Maintenance Materials Submittals: Compile maintenance information and materials during Work to ensure complete set of documents, maintenance manuals, and operation instructions.
- H. Closeout Submittals: Compile closeout submittals, organize, and submit to Owner prior to Notice of Completion. Project will not be considered complete until closeout submittals have been received by Owner.
- I. CONSTRUCTION PROGRESS SCHEDULES. Submit construction progress schedule with separate item for each major trade and operation, identifying first day of each week.
 - 1. Show complete sequence of construction by activity, identifying work of separate stages and logically grouped activities.
 - 2. Show projected percentage of completion for each item of Work as of time of each progress Application for Payment.
 - 3. "Submittal Schedule": Show Contractor submittal dates required for shop drawings, product data, and samples, and product delivery dates; deliver to Architect per approved "Submittal Schedule."
 - a. "Submittal Schedule" may be incorporated into construction progress schedule or may be separate, Contractor option.
 - b. Architect's Review Period: Architect will be expedient in review however Contractor shall schedule submittals recognizing possibility Architect may reject and may require resubmittal.
 - c. Contract extension shall not be allowed for Contractor's failure to properly schedule submittals to allow for Architect requiring resubmittal.

- J. Progress Schedule Format: Submit both horizontal bar chart and network analysis system using critical path method as approved by Owner.
 - 1. Submit revised progress schedules with each Application for Payment reflecting changes since previous submittal, not less than monthly.

1.4 SCHEDULE OF VALUES

- A. Submit typed schedule on AIA Form G703 or another Owner and Architect pre-approved 8-1/2" by 11" paper format; Contractor's standard media-driven printout will be considered on request. Submit within 15 days after Notice to Proceed..
- B. Format: Table of Contents of this Project Manual, with modifications as pre-approved by Owner and Architect; identify each line item with number and title of major Specification sections.
- C. Revise schedule to list change orders for each Application for Payment.

1.5 PRODUCT DATA/MANUFACTURERS' LITERATURE

- A. Action Submittals: Mark each copy to identify applicable Products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work.
- B. Information Submittals: Include manufacturers' installation instructions only when required by Specifications or specifically requested by Architect.
 - 1. Maintain copy of manufacturer installation instructions and recommendations in Contractor's field office for review.
- C. Product data shall be submitted as electronic PDF files unless otherwise noted or approved by Architect in advance.
 - 1. Where paper copies are permitted submit number of copies Contractor requires, plus one copy to be retained by Architect.

1.6 SHOP DRAWINGS

- A. Shop drawings to illustrate requirements of Contract Documents, accurately show relevant field conditions, dimensions, quantities, kinds of materials, methods of assembly, and data required for fabrication, erection, and installation.
- B. Shop drawings shall be submitted as electronic PDF files unless otherwise noted or approved by Architect in advance.
 - 1. Where prints are permitted submit one reproducible print, minimum sheet size 8-1/2" by 11".
- C. Distribution: After review, reproduce and distribute.

1.7 SAMPLES

- A. Submit full range of manufacturers' standard colors, textures, and patterns for Architect's selection.
- B. Submit samples to illustrate functional characteristics of Product, with integral parts and attachment devices.
- C. Coordinate submittal of different categories for interfacing work.
- D. Include identification on each sample, giving full information.
- E. Submit number of samples required by Contractor plus one to be retained by Architect.
 - 1. Maintain one set of approved samples at Project Field Office.
- F. Sizes: Provide following sizes unless otherwise specified.
 - 2. Flat or Sheet Products: Minimum 6" square, maximum 12" by 12".
 - 3. Linear Products: Minimum 6", maximum 12" long.
 - 4. Bulk Products: Minimum one pint, maximum one gallon.
- G. Full size samples may be used in the Work upon approval.

1.8 MANUFACTURERS' CERTIFICATES

- A. Submit certificates, in duplicate in accordance with requirements of each Specification section.

1.9 EXCESS MATERIALS AND ATTIC STOCK

- A. Excess Materials: Excess materials shall be considered property of Owner; inform Owner of extent of excess materials and methods required for handling and storage; remove from site excess materials not required by Owner for maintenance stock.
- B. Attic Stock: Owner may choose to obtain additional attic stock for maintenance purposes where excess materials are not considered adequate.
 - 1. Owner may require as much as 5% extra materials for maintenance purposes. Exact amount of each material shall be determined by Owner based on following meeting and additional costs determined by Contractor.
 - a. Contractor shall be prepared to order up to 5% extra materials on items that may not be readily available in future such as custom colors, offshore manufacture, anticipated life span under 5 years, and potential for damage.
 - 1) Do not order extra attic stock until extent is determined and agreed to by Owner including which materials require extra stock and exactly how much those materials will cost including shipping and handling.

- b. Excess Materials: Furnish excess materials only for materials that have a shelf-life of more than two years.
- 2. Meeting: Conduct meeting prior to beginning Work to discuss extent of materials Owner would like to receive at Project Closeout for attic stock for maintenance materials. Where available include personnel from Owner's maintenance crew.
 - a. Estimate excess materials to be anticipated to be ordered in addition to materials for handling and storage and how those materials will be invoiced and identified regarding material and location in Project.
 - b. Determine area necessary for adequate storage, handling, and identifying excess materials and attic stock and discuss with Owner.
 - c. Submit information regarding equipment necessary for handling of excess materials and attic stock due to weight, size, and storage requirements.
 - d. Assist Owner in determining where on-site or off-site additional attic stock for maintenance purposes will be delivered and stored.
- 3. Additional Costs: After meeting submit to Owner detailed listing of additional costs for each material Owner may like to receive for attic stock and assist Owner in modifying listing to determine acceptable final costs.
 - a. Include unit prices for desired attic stock where excess materials are not adequate for Owner maintenance stock.
- 4. Final Completion: Ensure attic stock has been received, identified, cataloged, and stored at locations agreed upon with Owner based on Change Order indicating amounts finally agreed to by Owner.

1.10 DESIGN/BUILD PROCEDURES

- A. Design as Part of Means and Methods of Construction: Select Project components require construction team design as part of means and methods of construction as described in various sections.
 - 1. Terms commonly used such as Design/Build, Delegated Design, and Design/Assist are applicable to these procedures as determined by law but shall be generally referred to in these documents as Design/Build.
 - a. In general Design/Build includes design by licensed professionals with expertise beyond that allowed under standard architectural licensure, and outside of scope of work of other design professionals on the design team.
 - 2. Contractor may be required to provide design services as part of construction for specific work defined as design or design-build where special expertise is required that is not available in the Project design team.

3. Subcontractors, fabricators, and manufacturers may be required to provide design services as part of their work due to special expertise in design services for their specific components, refer to technical sections for Design/Build.
 4. Contractor, subcontractors, fabricators, manufacturers, and suppliers shall be responsible for attachments, anchors, fasteners, adhesives, and connectors suitable to applications unless specific items are listed in Contract Documents.
 - a. Where specific items are listed in Contract Documents Contractor, subcontractors, fabricators, manufacturers, and suppliers shall review and submit comments where items listed are not acceptable.
 - b. Where no comments are received, listed items shall be considered acceptable.
- B. Contractor acknowledges and accepts responsibility for specialty design as part of means and methods of construction, as well as coordination of parties involved to achieve architectural design intent indicated in Contract Documents.
1. Design-build work includes sizing, sequencing, and detailing for construction by professional licensed or registered engineer or design professional with special expertise applicable to portion of Work involved.
 2. Design-build work shall be constructed in compliance with building codes and regulations in effect and shall be fit and proper for intended use.
 3. Design-build work shall include drawings, specifications, and calculations prepared, stamped, and signed by qualified professional licensed or registered engineer licensed in the Project location as appropriate to design-build work.
 - a. Plans, specifications, and calculations shall be acceptable to Owner, Owner's Representative, and applicable authorities.
- C. Where required by Owner Contractor shall submit copies of current insurance policies covering errors and omissions of persons designing design-build work with deductibles and limits per occurrence as mutually agreed by Owner and Contractor.
1. Provide endorsement to insurance providing for 30-day notice to Owner prior to cancellation or material reduction in coverage.
 2. Insurance shall be maintained for not less than applicable statute of limitations for claims of latent defects, if such insurance is not written on an occurrence basis during time design-build work is designed and constructed.
- D. Review proposed layouts with Design Team and with various trades prior to commencing work related to design-build work.

END OF SECTION

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Description of Project management and coordination including but not necessarily limited to the following:
 - 1. General Project coordination procedures.
 - 2. Staff names.
 - 3. Administrative and supervisory personnel.
 - 4. Project meetings.
- B. Related Sections:
 - 1. Section 01 30 00: Administrative requirements.
 - 2. Section 01 79 00: Demonstration and training.

1.2 COORDINATION

- A. Coordination: Coordinate construction operations included in various Specifications sections to ensure efficient and orderly installation of each part of Work.
 - 1. Coordinate construction operations that depend on each other for proper installation, connection, and operation.
 - 2. Coordinate work to assure efficient and orderly sequence of installation of construction elements.
 - 3. Make provisions for accommodating items installed by Owner or under separate contracts.
- B. Prepare memoranda for distribution to each party involved as needed, outlining special procedures required for coordination.
 - 1. Include required notices, reports, and list of attendees at meetings; include Architect and Owner in distribution.
- C. Verify characteristics of interrelated operating equipment are compatible; coordinate work having interdependent responsibilities for installing, connection to, and placing such equipment in service.

- D. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings.
 - 7. Follow routing shown for pipes, ducts, and conduits as closely as possible; make runs parallel with lines of building.
 - 8. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated; coordinate locations of fixtures and outlets with finish elements.
- F. Administrative Procedures: Coordinate scheduling and timing of administrative procedures with other construction activities and activities of other contractors to avoid conflicts and ensure orderly progress of Work.

1.3 SUBMITTALS

- A. Staff Names: Immediately after receipt of notice to proceed or immediately after signing of Contract by Owner and Contractor, submit list of principal staff assignments, including superintendent and other personnel in attendance at Project site.
 - 1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone.

1.4 SUPERVISORY AND ADMINISTRATIVE PERSONNEL

- A. Provide supervisory personnel, in addition to Project Superintendent, as required for proper and timely performance of Work and coordination of subcontracts.
- B. Provide administrative staff as required to allow Project Superintendent and supervisory personnel to allocate maximum time to Project supervision and coordination.

1.5 PROJECT MEETINGS

- A. Schedule and administer Project meetings throughout progress of Work:
 - 1. Pre-construction meeting.
 - 2. Progress meetings at weekly intervals.
 - 3. Pre-installation conferences.
 - 4. Coordination meetings.
 - 5. Special meetings.
- B. Make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to Architect, Owner, participants, and those affected.
- C. Attendance: Job superintendent, major subcontractors, and suppliers as appropriate to agenda; Architect, Owner, and Owner and Architect's consultants as appropriate to agenda topics for each meeting.

- D. Suggested Agenda: Review of Work progress, status of progress schedule and adjustments, delivery schedules, submittals, requests for information, maintenance of quality standards, pending changes and substitutions, and issues needing resolution.

END OF SECTION

SECTION 01 35 20

HISTORIC TREATMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Special procedures for historic rehabilitation.
 - 1. Project includes rehabilitation in a building of historic significance; make every effort to comply with following requirements.
 - a. Where indicated match existing historic materials to maximum degree possible given present-day material availability and craftsmanship.
 - b. Take special precautions in executing work to avoid damage to existing materials of historic significance.
 - c. Avoid unnecessary cutting and patching of existing materials of historic significance.
 - 2. Building will be made available to those bidding work for review of existing materials; carefully examine materials and adjacent systems to assure total compliance.
 - a. Extent of materials of historic significance is subject to review and opinion of Architect and authorities having jurisdiction.

1.2 REFERENCES

- A. U.S. Department of the Interior, National Park Service: "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings."
- B. U.S. Department of the Interior, National Park Service: "Preservation Briefs."
- C. U.S. Department of the Interior, National Park Service: "Preservation Tech Notes."

1.3 SUBMITTALS

- A. Submit written request well in advance of executing cutting or alteration that affects elements of historic significance. Request shall include following information.
 - 1. Identification of Project.
 - 2. Description of affected work.
 - 3. Necessity for cutting or alteration.
 - 4. Alternatives to cutting and patching.
 - 5. Description of proposed work including:
 - a. Scope of cutting, patching, alteration, or excavation.
 - b. Products proposed to be used.
 - c. Extent of refinishing to be included.

- B. Submit written notice to Architect designating date and time when work of historic significance will be uncovered.

1.4 QUALITY ASSURANCE

- A. Qualifications: Employ quality craftspersons to duplicate elements of historic significance; where available, employ craftspersons specializing in historic rehabilitation and renovation.
 - 1. Craftsperson: An individual with specialized knowledge and experience capable of recognizing situations that require special attention and experience working with design professions in finding solutions for problems related to historic issues.

PART 2 - PRODUCTS

2.1 DESCRIPTION

- A. Design and Performance Requirements: Conform to referenced U.S. Department of the Interior "Standards", "Preservation Briefs", and "Preservation Tech Notes" unless more stringent requirements are indicated.

2.2 MATERIALS

- A. Comply with Specifications and standards for each product involved.
- B. Provide materials and fabrication consistent with historic significance of building, quality of Project, and intended for commercial construction where Specifications and standards have not been provided.
- C. Provide new materials for historic rehabilitation and renovation unless otherwise indicated or unless specific items have been approved.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect existing conditions of Project including elements of historic significance subject to damage.
- B. After uncovering work of historic significance inspect conditions affecting installation of products, and of performance of work.
- C. Report unsatisfactory conditions in writing. Do not proceed with work until Architect has provided further instructions.

3.2 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of elements of historic significance.
- B. Provide devices and methods to protect existing and remodeled elements of historic significance from damage.

3.3 PERFORMANCE

- A. Employ quality craftspersons to duplicate elements of historic significance. Where available, employ craftspersons specializing in historic rehabilitation and renovation.
- B. Restore work of historic significance in accordance with requirements of Contract Documents.
- C. Refinish entire surfaces as necessary to provide even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

END OF SECTION

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes general quality control requirements.
 - 1. General quality control.
 - 2. Manufacturers' field services.
 - 3. Mock-ups.
- B. Related Requirements:
 - 1. Refer to applicable codes and Specifications sections for test requirements.

1.2 QUALITY CONTROL, GENERAL

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

1.3 MANUFACTURER'S FIELD SERVICES

- A. When specified in respective Specification sections, require manufacturer or supplier to have qualified personnel provide on-site observations and recommendations.
 - 1. Observe field conditions, including conditions of surfaces and installation.
 - 2. Observe quality of workmanship.
 - 3. Provide recommendations to assure acceptable installation and workmanship.
 - 4. Where required, start, test, and adjust equipment as applicable.
- B. Representative shall submit written report to Architect or Owner listing observations and recommendations.

1.4 MOCK-UPS

- A. Erect field samples and field mock-ups at locations on site as approved, in advance and in accordance with requirements where included in Specifications section.
 - 1. Test mock-ups requiring special equipment may be erected at location having access to necessary equipment, coordinate with Architect.
- B. Field samples and mock-ups not approved and not capable of being acceptably revised shall be removed from site.
- C. Approved field samples and mock-ups may be used as part of Project.

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes temporary construction facilities and temporary controls.
 - 1. Electricity and lighting.
 - 2. Heat and ventilation.
 - 3. Water and sanitary facilities.
 - 4. Construction aids.
 - 5. Temporary enclosures.
 - 6. Barriers.
 - 7. Cleaning during construction.
 - 8. Project identification.
 - 9. Cellular telephone service.
 - 10. Storage.
- B. Related Requirements:
 - 1. Section 01 70 00: Progress cleaning and final cleaning.
 - 2. Section 01 74 10: Waste management.
- C. Provide temporary construction facilities and temporary controls as required to conform to applicable authorities and as required to complete Project in accordance with Contract Documents.
 - 1. Authorities: Contact governing authorities to establish extent of temporary facilities and temporary controls required by authorities.

1.2 ELECTRICITY AND LIGHTING

- A. Provide electrical service required for construction operations, with branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords.
 - 1. Connection to existing electrical service is permitted.
- B. Provide lighting for construction operations.
 - 1. Permanent lighting may be used during construction; maintain lighting and make routine repairs.
- C. Owner will pay costs of energy used from existing on-site services.

1.3 HEAT AND VENTILATION

- A. Provide heat and ventilation as required to maintain specified conditions for construction operation, to protect materials and finishes from damage due to temperature and humidity.
- B. Coordinate use of existing facilities with Owner.
 - 1. Supplement with temporary units as required to maintain specified conditions for construction operations, and to protect materials and finishes from damage due to temperature or humidity.
- C. Owner will pay costs of energy used from existing on-site services.

1.4 WATER AND SANITARY FACILITIES

- A. Provide water service required for construction operations; extend branch piping with outlets located so water is available by use of hoses.
 - 1. Connection to existing facilities is permitted.
 - 2. Owner will pay for water used from existing on-site services.
- B. Provide and maintain required sanitary facilities and enclosures.
 - 1. Existing facilities shall not be used.

1.5 CONSTRUCTION AIDS

- A. Noise, Dust and Pollution Control: Provide materials and equipment necessary to comply with local requirements for noise, dust, and pollution control.
- B. Fire Protection: Maintain on-site fire protection facilities as required by applicable authorities and insurance requirements.
- C. Security: Protect Site and Work; prevent unauthorized entry, vandalism, and theft.
 - 1. Coordinate with Owner's security program.
- D. Use of Existing Facilities: Verify availability of existing facilities for construction operations with Owner prior to beginning on-site construction.

1.6 ENCLOSURES

- A. Temporary Partitions: Provide temporary partitions as required to separate work areas from occupied areas, to prevent penetration of dust and moisture into occupied areas, and to prevent damage to existing areas and equipment.
 - 1. Construction: Framing and sheet materials with closed joints and sealed edges at intersections with existing surfaces; Flame Spread Rating of 25 in accordance with ASTM E84.

2. Paint surfaces exposed to view in occupied areas.

1.7 BARRIERS

- A. Barricades: Provide barricades as required by governing authorities.
- B. Tree Protection: Provide barriers around trees and plants designated to remain; protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuous running water.

1.8 CLEANING DURING CONSTRUCTION

- A. Control accumulation of waste materials and rubbish. Recycle or dispose of off-site.
- B. Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.

1.9 PROJECT IDENTIFICATION

- A. Signs: Subject to approval of Architect and Owner.

1.10 CELLULAR TELEPHONE SERVICE

- A. Cellular Telephone Service: Furnish on-site Project Managers with cellular telephone. Ensure Owner and Architect ability to contact site during construction operations.
 1. Schedules: Submit schedules of on-site Project Managers with individual cellular telephone numbers to Owner and Architect; maintain schedules and cell phone numbers up to date during Project on-site operations.

1.11 STORAGE

- A. Storage for Tools, Materials, and Equipment: Limit on-site storage to Project area; provide weather-tight storage, with heat and ventilation for products requiring controlled conditions.
 1. Maintain adequate space for organized storage and access.
 2. Provide lighting for inspection of stored materials.

1.12 REMOVAL

- A. Remove temporary materials, equipment, services, and construction when safe for public to utilize space and before Notice of Completion is issued.
- B. Clean and repair damage caused by installation or use of temporary facilities.
- C. Restore existing facilities used during construction to specified or original condition.

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes basic product requirements governing material and equipment.
 - 1. General product requirements.
 - 2. Product list.
 - 3. Quality assurance.
 - 4. Delivery, storage, and handling.
- B. Related Requirements:
 - 1. Section 01 25 00: Substitution procedures.
 - 2. Section 01 30 00: Submittal of manufacturers' certificates.
 - 3. Section 01 77 00: Operation and maintenance data.

1.2 GENERAL PRODUCTS REQUIREMENTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications, referenced standards, and applicable codes and regulations as minimum requirements.
- C. Provide new materials except as specifically allowed by Contract Documents.
- D. Materials to be supplied in quantity within a Specification section shall be by one manufacturer, shall be the same, and shall be interchangeable.
- E. Provide equipment and systems composed of materials from a single manufacturer except where otherwise recommended by equipment or systems manufacturer or where otherwise indicated in Contract Documents.
- F. Manufacturers: Manufacturers listed in Specifications, on Drawings, on Schedules, and in Notes shall be considered acceptable to extent their products comply with Contract Documents requirements and are suitable for applications indicated.
 - 1. Manufacturer's representative shall be responsible for reviewing Contract Documents and verifying their specified products conform to Contract Documents, applicable codes, and regulations, and are suitable for applications indicated.
 - a. Where specified products are not recommended by manufacturer's representative, immediately notify Architect.
 - b. Where a different product by same manufacturer is recommended by manufacturer's representative as more suitable for applications indicated, immediately notify Architect.

2. Basis of Design: Following shall be considered as Basis of Design.
 - a. Specific manufacturers and products identified in Specifications as Basis of Design.
 - b. Specific manufacturers and products listed in Schedules.
 - c. Specific manufacturers and products listed on Drawings or in Notes.
 - d. Where more than one manufacturer or product is listed as Basis of Design immediately notify Architect and request clarification.
 - 1) Where more than one manufacturer or product is listed as Basis of Design in one location in Contract Documents clearly indicating either is acceptable, no clarification would be necessary.
- G. Contractor's Options: Comply with following options; requests for substitutions for named manufacturers and products shall comply with requirements specified in Section 01 25 00 – Substitution Procedures.
 1. Products Identified by Reference Standards: Select product meeting referenced standard for products specified only by reference standard.
 - a. Requests for Substitutions to be limited to products not complying with referenced standards.
 - 1) Submit justification for non-compliance with reference standards as part of Request for Substitutions; if product is foreign made submit rationale why foreign standards and basic materials indicates compliance.
 2. Named Manufacturers: Where names of manufacturers are specified select any named manufacturer product meeting Specifications for products specified by naming one or more manufacturers.
 - a. Submit Request for Substitution for any manufacturer not named.
 3. Named Manufacturers and Named Products: Select any named manufacturer named product meeting Specifications for products specified by naming one or more manufacturers and products.
 - a. Where only one manufacturer and product are named, together with additional manufacturers without specific products, Requests for Substitutions to be limited to products not comparable to that specified.
 - 1) Contractors, subcontractors, suppliers, and manufacturers shall take special care to ensure comparable products are being supplied based on design, performance, quality, and longevity.
 - 2) Substitutions: Submit Request for Substitution for any manufacturer not named and for products not comparable to those specified in design, performance, quality, and longevity.

4. Basis of Design: Where manufacturer or manufacturer and product both are indicated as Basis of Design, submit Request for Substitution for other manufacturers and products.
5. "Or Equal" Clauses: Submit request for substitution for manufacturer or product not specifically named in Specifications where terms "or equal", "or approved equal", or similar references are made.

1.3 SUBMITTALS

- A. Product List: Within 35-days after award of Contract, submit to Owner and Architect a complete list of major products proposed for installation, with name of manufacturer, trade name, and model.
 1. Tabulate products by Specification number and title.
- B. Substitutions: Refer to Section 01 25 00 – Substitution Procedures.

1.4 QUALITY ASSURANCE

- A. Comply with industry standards and applicable codes except when more restrictive tolerances or requirements indicate more rigid standards or precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Install products straight, true-to-line, and in correct relationship to adjacent materials, with hairline joints, free of rough, sharp, and potentially hazardous edges.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
 1. Seismic Anchors: Conform to code requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Transport products by methods to avoid product damage, deliver in undamaged condition in manufacturer's unopened containers or packaging.
- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
- C. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- F. Arrange storage to provide access for inspection; periodically inspect to assure products are undamaged and are maintained under required conditions.

- G. Provide equipment and personnel to handle products by methods to prevent soiling and prevent damage.
- H. Promptly inspect shipments to assure products comply with requirements, quantities are correct, and products are undamaged.
- I. Immediately remove from Project products damaged, wet, stained, and products with mold and products with mildew.
 - 1. Take special care to prevent absorbent products such as gypsum board and acoustical ceiling units from becoming wet.

END OF SECTION

SECTION 01 70 00

EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes execution requirements.
 - 1. Installer qualifications.
 - 2. Examination.
 - 3. Manufacturer's instructions.
 - 4. Installation.
 - 5. Cleaning.
 - 6. Protection.
- B. Related Requirements:
 - 1. Section 01 50 00: Cleaning during construction.
 - 2. Section 01 77 00: Closeout procedures.

1.2 INSTALLER QUALIFICATIONS

- A. Experienced Installers: Installers to have minimum five-years successful experience installing items like those required for Project, except for individuals in training under direct supervision of experienced installer.

1.3 EXAMINATION

- A. Acceptance of Conditions: Beginning installation of a product signifies installer has examined substrates, areas, and conditions for compliance with manufacturer requirements for tolerances and other conditions affecting performance.
- B. Field Measurements: Take field measurements as required to fit Work properly; recheck measurements prior to installing each product.
 - 1. Where portions of Work are to fit to other construction verify dimensions of other construction by field measurements before fabrication; allow for cutting and patching to avoid delaying Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

1.4 MANUFACTURERS' INSTRUCTIONS

- A. Manufacturer's Recommendations: When work is specified to comply with manufacturers' recommendations or instructions, distribute copies to persons involved and maintain one set in field office.
 - 1. Conform to requirements specified in Section 01 30 00 for submittal of recommendations or instructions to Architect; submit to Architect only where specified or where specifically requested; otherwise keep in Field Office.
- B. Perform work in accordance with details of recommendations and instructions and specified requirements.
 - 1. Consult with Architect should a conflict exist between Specifications and recommendations, or Specifications and instructions.
- C. Where manufacturer's information notes special recommendations in addition to installation instructions, comply with both recommendations and instructions.

1.5 INSTALLATION

- A. Pre-Installation Meetings: Installers and suppliers are to attend pre-installation meetings scheduled by Contractor.
- B. Comply with manufacturers written recommendations and installation instructions unless more restrictive requirements are specified.
- C. Locate Work and components accurately, in correct alignment and elevation.
 - 1. Make vertical work plumb and horizontal work level.
 - 2. Install components to allow space for maintenance and ease of removal for replacement.
- D. Install products at time and under conditions to ensure best possible results; maintain conditions required for product performance until Notice of Completion.
- E. Conduct operations so no part of Work is subject to damaging operations or excessive loads during normal conditions.
- F. Securely anchor permanent construction in place, accurately located and aligned with other portions of Work.
- G. Allow for building movement including thermal expansion and contraction.
- H. Make joints of uniform width; arrange joints as indicated, for best visual effect where not otherwise indicated; fit exposed connections together to form hairline joints except where otherwise indicated.

1.6 CLEANING

- A. Cleaning During Construction: Specified in Section 01 50 00 - Temporary Facilities and Controls.
- B. Progress Cleaning: Keep installed areas clean using nontoxic cleaning materials specifically recommended by manufacturers of product being cleaned, where not otherwise recommended use nontoxic materials that will not damage surfaces.
 - 1. Remove debris from concealed spaces before enclosing space.
 - 2. Supervise construction operations to assure no part of construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.
- C. Final Cleaning: Execute final cleaning no more than 5 days prior to public opening.
 - 1. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains, and foreign substances; polish transparent and glossy surfaces.
 - 2. Clean equipment and fixtures to a sanitary condition, clean filters of mechanical equipment, replace filters where cleaning is impractical.
 - a. Clean ducts.
 - 3. Clean site; sweep paved areas.
 - 4. Remove waste, surplus materials and rubbish from Project and site; recycle to maximum extent feasible.

1.7 PROTECTION

- A. Protect products subject to deterioration with impervious cover. Provide ventilation to avoid condensation and trapping water.
- B. Take care to use protective covering and blocking materials that do not soil, stain, or damage materials being protected.
- C. After installation, provide coverings to protect products from damage from traffic and construction operations, remove when no longer needed.
- D. Protect interior materials from water damage; immediately remove wet materials from site to prevent growth of mold and mildew on site.

END OF SECTION

SECTION 01 73 00

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. Contractor is responsible for cutting, fitting, and patching to complete Work and to:
 - 1. Make its parts fit together properly.
 - 2. Uncover work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to Contract Documents.
 - 5. Remove samples of installed work as required for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installation of piping.
 - 7. Provide routine penetrations of non-structural surfaces for installation of conduit.
- B. Related Requirements:
 - 1. Section 01 50 00: Temporary facilities and controls.
 - 2. Section 02 41 20: Selective building demolition for remodeling.

1.2 SUBMITTALS

- A. Submit written request well in advance of cutting or alteration which affects:
 - 1. Work of Owner or separate contractor.
 - 2. Structural value or integrity of any element of Project.
 - 3. Integrity of weather-exposed or moisture-resistant elements.
 - 4. Efficiency, operational life, maintenance, or safety of operational elements.
 - 5. Visual qualities of sight-exposed elements.
- B. Request shall include:
 - 1. Identification of Project and description of affected work.
 - 2. Necessity for cutting or alteration.
 - 3. Effect on work of Owner or separate contractor.
 - 4. Effect on structural integrity, or weatherproof integrity of Project.
 - 5. Alternatives to cutting and patching.
 - 6. Cost proposal, when applicable.
 - 7. Written permission of separate contractor whose work will be affected.
 - 8. Description of proposed work including:
 - a. Scope of cutting, patching, alteration, or excavation.
 - b. Products proposed to be used.
 - c. Extent of refinishing to be included.
- C. Should conditions of Work or schedule indicate a change of products from original installation, Contractor shall submit request for substitution as specified in Section 01 25 00 – Substitution Procedures.
- D. Submit written notice to Architect designating date and time work will be uncovered.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with Specifications and standards for each specific product involved.
- B. Where Specifications and standards have not been provided, provide materials and fabrication consistent with quality of Project and intended for commercial construction.
- C. Provide new materials for cutting and patching unless otherwise indicated.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of products, or performance of work.
- C. Report unsatisfactory or questionable conditions to Architect in writing; do not proceed with work until Architect has provided further instructions.

3.2 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of Work.
 - 1. Provide services of licensed engineer for designing temporary support where required by applicable authorities for temporary supports and for shoring; submit engineering calculations directly to applicable authorities upon request.
- B. Protect other portions of Project from damage.

3.3 PERFORMANCE

- A. Execute cutting by methods that provide proper surfaces to receive installation of repairs and finishes.
- B. Employ same installer or fabricator to perform cutting and patching work as employed for new construction for sight-exposed finished surfaces.
- C. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
- D. Restore work that has been cut or removed; install new products to provide completed Work in accordance with requirements of Contract Documents.
- E. Fit work tight to pipes, sleeves, ducts, conduit, and penetrations through surfaces.
- F. Refinish entire surfaces as necessary to provide even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.

2. For an assembly, refinish entire unit.

END OF SECTION

SECTION 01 74 10

WASTE MANAGEMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. Project requires special Waste Management Program.
 - 1. CALGreen Waste Management: As required in Section 01 81 15.
 - 2. Effect optimum control of solid wastes.
 - 3. Prevent environmental pollution and damage.
- B. Related Work:
 - 1. Section 01 50 00: Temporary facilities and controls.

1.2 DEFINITIONS

- A. Inert Fill: A permitted facility that accepts inert waste such as asphalt and concrete exclusively.
- B. Class III Landfill: A landfill that accepts non-hazardous waste such as household, commercial, and industrial waste, including construction, remodeling, repair, and demolition operations.
- C. Construction and Demolition Waste: Includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, repair, and demolition operations.
 - 1. Rubbish: Includes both combustible and noncombustible wastes, such as paper, boxes, glass, crockery, metal and lumber scrap, tin cans, and bones.
 - 2. Debris: Includes both combustible and noncombustible wastes, such as leaves and tree trimmings that result from construction or maintenance and repair work.
- D. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
- E. Sanitary Wastes:
 - 1. Garbage: Refuse and scraps resulting from preparation, cooking, distribution, or consumption of food.
 - 2. Sewage: Domestic sanitary sewage.

1.3 SUBMITTALS

- A. Waste Management Program: Comply with Contract Documents and applicable code requirements for salvaging, recycling, and disposing of nonhazardous waste.
 - 1. Prior to commencement of Work, schedule and conduct meeting with Owner and Architect to discuss proposed Waste Management Program.
 - 2. Develop mutual understanding relative to details of recycling, and rebate programs.

3. Prepare and submit a written and graphic Waste Management Program including, but not limited to, the following:
 - a. Indicate procedures to be implemented.
 - b. Estimate total Project waste to be generated, and estimated cost of disposing of Project waste in landfills.
 - c. Estimate total cubic yards of following waste categories to be diverted from landfill.
 - 1) Clean dimensional wood, palette wood.
 - 2) Plywood, oriented strand board, and medium density fiberboard.
 - 3) Cardboard, paper, packaging.
 - 4) Other items as directed by Owner and Architect.
 - d. Estimate amounts of following waste categories in appropriate units (weight, feet, square yards, gallons).
 - 1) Metals.
 - 2) Gypsum board.
 - 3) Paint.
 - 4) Other items as directed by Owner and Architect.
 - e. Submit permit or license and location of waste disposal areas.
 - f. Submit procedures for recycling/re-use program.
 - g. Submit procedures for rebate programs.
 - h. Revise and resubmit Waste Management Program as required by Owner and Architect.
 - 1) Review of Contractor's Waste Management Program will not relieve Contractor of responsibility for control of pollutants and other environmental protection measures.
- B. Submit summary of solid waste generated by Project with each application for progress payment, on form acceptable to Owner and Architect; include manifests, weight tickets, receipts, and invoices identifying Project and waste delivered to following locations.
 1. Recycling Centers.
 2. Class III landfills.
 3. Inert fills.
- C. Prepare rebate information and product documentation as required for Owner to qualify for rebate programs; submit with final closeout submittals.
 1. Where feasible submit in electronic format, otherwise in 3-ring binder.

1.4 RECYCLING PROGRAM

- A. Recycling: Implement recycling program that includes separate collection of waste materials of following types as applicable to Project requirements; recycling program to be applied by Contractors and subcontractors.
 - 1. Ferrous metal.
 - 2. Non-ferrous metal.
 - 3. Clean dimensional wood and palette wood.
 - 4. Plywood, oriented strand board, and medium density fiberboard.
 - 5. Paper - bond.
 - 6. Paper - newsprint.
 - 7. Cardboard and paper packaging materials.
 - 8. Gypsum board (unpainted).
 - 9. Paint.
 - 10. Beverage containers.
 - 11. Porcelain plumbing fixtures.
 - 12. Insulation.
 - 13. Others as appropriate.
- B. Handling: Keep materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process.
 - 1. Clean materials contaminated prior to placing in collection containers.
 - 2. Arrange for collection by or delivery to appropriate recycling center or transfer station that accepts construction and demolition waste for purpose of recycling.
- C. Participate in Re-Use Programs: Rebates, tax credits, and other savings obtained for recycled or re-used materials shall accrue to Contractor.

END OF SECTION

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This section describes Contract closeout procedures.
 - 1. Substantial Completion.
 - 2. Final Completion.
 - 3. Project record documents.
 - 4. Material and finish data.
 - 5. Operation and maintenance manuals.
- B. Related Requirements:
 - 1. Section 01 30 00: Administrative requirements including attic stock.
 - 2. Section 01 78 00: Warranties.

1.2 SUBSTANTIAL COMPLETION

- A. Immediately prior to Substantial Completion, schedule agency reviews as required for “temporary certificate of occupancy” or for “certificate of occupancy”.
- B. When Contractor considers Work, or a designated portion thereof is substantially complete, submit written notice, with list of items to be completed or corrected.
 - 1. List (“Punch List”): Format pre-approved by Owner and Architect; tabular form with each space listed required.
- C. Within a reasonable time, Owner and Architect will inspect status of completion and may add to “Punch List”.
- D. Should Owner and Architect determine Work is not substantially complete, Contractor will be promptly notified in writing, giving reasons.
- E. Contractor shall remedy deficiencies and send a second written notice of substantial completion; Architect will reinspect Work.
 - 1. Contractor shall pay for Architect’s time and direct expenses where more than one Substantial Completion inspection is required.
- F. When Work is determined to be substantially complete by Architect, a Certificate of Substantial Completion will be issued by the Architect

1.3 FINAL COMPLETION

- A. When Work is complete, submit written certification indicating:
 - 1. Work has been inspected for compliance with Contract Documents.

2. Work has been completed in accordance with Contract Documents and deficiencies listed (in 'Punch List') with have been corrected.
 3. Equipment and systems have been tested in presence of Owner's representative and are operational.
 4. Work is complete and ready for final inspection.
- B. Special Submittals: In addition to submittals required by Contract, submit following.
1. Provide submittals required by governing authorities to governing authorities with copies included in Project Record Documents.
 2. Submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.

1.4 PROJECT RECORD DOCUMENTS

- A. Keep documents current; do not permanently conceal any work until required information has been recorded.
1. Owner will provide Contractor with a separate set of Drawings to maintain for Project Record Documents.
 2. Store reproducible Drawings, one set of Project Manual, and one copy of each Change Order separate from documents used for construction, for use as Project Record Documents.
 3. Indicate actual work on Drawings; indicate actual products used in Project Manual, including manufacturer, model number and options.
 4. Update Project Record Documents daily and allow for Architect inspection at least once a month.
- B. At Contract close-out submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.
- C. Final Completion Submittal: At Project Completion submit both Project Record Documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

1.5 MATERIAL AND FINISH DATA

- A. Provide data for primary materials and finishes.
- B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.
1. Electronic Format: Where available in electronic format, submit USB 3.0 flash drives with information required for material and finish data.

- C. Arrange by Specification division and give names, addresses, and telephone numbers of subcontractors and suppliers. List:
 - 1. Trade names, model, or type numbers.
 - 2. Cleaning instructions.
 - 3. Product data.
 - 4. Maintenance recommendations.

1.6 OPERATION AND MAINTENANCE MANUALS

- A. Provide manuals for:
 - 1. Electrically operated items.
 - 2. Electrical equipment and controls.
 - 3. Maintenance manuals provided as part of Submittals.
 - 4. Emergency manuals and instructions provided as part of Submittals.
- B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.
- C. Provide a separate volume for each system, with a table of contents and index tabs for each volume.
- D. Arrange by Specification division and gives names, addresses, and telephone numbers of Subcontractors and suppliers. List:
 - 1. Appropriate design criteria.
 - 2. List of equipment and parts lists.
 - 3. Operating and maintenance instructions.
 - 4. Shop drawings and product data.
- E. Electronic Format: Where available in electronic format, submit two USB 3.0 flash drives with information required for operation and maintenance manuals.

END OF SECTION

SECTION 01 78 00

WARRANTIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Warranties: Compile required, and incidental warranties required by Contract Documents.
 - 1. Manufacturer Warranties: Provide manufacturer's standard warranties where specified including inspections and services included or required as part of manufacturer's standard warranty.
 - 2. Special Warranties: Provide special warranties as required by Specifications sections.
 - 3. These warranties shall be in addition to and not a limitation of other rights Owner may have against Contractor under Contract Documents, and which may be prescribed by law, regardless of wording of warranty.
- B. Extended Correction Period: Contractor shall correct failure of materials and systems to perform in a manner consistent with their intended use including but not limited to failure of waterproofing and roofing systems to resist penetration from water.
 - 1. Standard Correction Period: One year after Notice of Completion or Beneficial Occupancy by Owner except where otherwise noted in Contract Documents.
 - a. Items used by Contractor during construction operations shall not be considered substantially completed.
 - b. Correction of Work Period begins with Owner occupancy not completion of component.
 - 2. Extended Correction Period: Requirements are same as standard correction period but for an extended period as indicated in Specifications sections.
 - 3. Contractor Responsibilities: Bear cost of correcting failed work and replacing construction damaged by failure of materials and systems to perform in a manner consistent with their intended use during correction period.
 - a. Requirements for correction period shall apply to Subcontractors, suppliers, installers, and those responsible for failed work.
 - b. Owner and Design Team shall not be responsible for determining degree of responsibility of those involved.
 - 4. Owner's Rights under Law: Correction period shall be in addition to and not a limitation of other rights Owner may have against Contractor under Contract Documents, and which may be prescribed by law.

1.2 FORM OF SUBMITTAL

- A. Special Warranty and Extended Correction Period Forms: Provide duplicate copies, notarized or on Contractor and Manufacturer's letterhead without conditions or exceptions to requirements specified.
 - 1. Assemble documents executed by subcontractors, installers, suppliers, and manufacturers.
 - 2. Provide table of contents and assemble in binder with durable plastic cover, clearly identified regarding extent of contents.
 - 3. Electronic Format: Submit USB 3.0 flash drives of warranties, in Microsoft Word.
- B. Manufacturer Warranty Forms: Use manufacturer's standard forms unless otherwise directed in Contract Documents; completed form shall not detract from or confuse interpretations of Contract Documents.
 - 1. Manufacturer's authorized representative shall sign manufacturer warranties.
 - 2. Subcontractor and installer shall countersign warranty where specified.
- C. Submit final warranties prior to final application for payment.
 - 1. For equipment put into use with Owner's permission during construction, submit within ten days after first operation.
 - 2. For items of Work delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.
- D. Provide information for Owner's personnel regarding proper procedure in case of failure and instances that might affect validity of manufacturer warranty.
- E. Size: 8-1/2" by 11" for three-ring binder; fold larger sheets to fit.

1.3 WARRANTIES AND CORRECTION OF WORK DOCUMENTS

- A. Warranties and Correction of Work Documents are intended to protect Owner against failure of work and against deficient, defective, and faulty materials and workmanship, regardless of sources.
- B. Limitations: Warranties and correction of work requirements are not intended to cover failures that result from:
 - 1. Unusual or abnormal phenomena of the elements.
 - 2. Owner's misuse, maltreatment, or improper maintenance of work.
 - 3. Vandalism after substantial completion.
 - 4. Insurrection or acts of aggression including war.

- C. Related Damages and Losses: Remove and replace work which is damaged as result of failure, or which must be removed and replaced to provide access for correction of work.
- D. Reinstatement: After correction of work reinstate warranty or extended correction period for corrected work to date of original expiration, but not less than half original period.
 - 1. Correction of Work Period: The general correction of work period specified shall not be extended by corrective work except to extent required to correct failure and repair or replace materials damaged by failure.
- E. Replacement Cost: Replace or restore failing items without regard to anticipated useful service lives where part of correction of work period, extended correction of work period, and special warranty period unless otherwise noted.
- F. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse interpretations of Contract Documents.

END OF SECTION

SECTION 01 81 15

CALGREEN ENVIRONMENTAL REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Comply with CALGreen environmental requirements related to energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality as adopted by the City of Santa Rosa.

1. Nonresidential Projects: Comply with specific CALGreen requirements for nonresidential projects where applicable to Project.

1.2 ENVIRONMENTAL REQUIREMENTS

- A. Mandatory Measures: Comply with CALGreen Mandatory Measures applicable to Project.

1. Design team and construction team are each required to participate to maximum degree possible to achieve CALGreen environmental requirements.
2. Contract Documents are not intended to limit alternative means of achieving environmental requirements.
 - a. Suggestions from Contractor, subcontractors, suppliers, and manufacturers for achieving environmental requirements are encouraged; team approach is also encouraged.
3. Voluntary Tiers: Construction team is encouraged to work with Owner and Design Team to achieve enhanced Voluntary Tier levels by incorporating additional measures as defined in CALGreen Appendixes.
 - a. Contact Owner and Architect regarding extent of intent of Project to reach Voluntary Tiers, additional work necessary to achieve enhanced Voluntary Tiers, and potential costs involved in achieving each Voluntary Tier.
 - b. Construction team is required to achieve Mandatory Measures and to achieve as much as possible without unacceptable cost impact or schedule impact as considered by Owner.

- B. Requirements: Construction team is required to review CALGreen requirements relative to Nonresidential Project related to following.

1. Energy Efficiency: Comply with California Energy Commission requirements.
2. Water Efficiency and Conservation: Comply with requirements for both indoor and outdoor water use.

3. Material Conservation and Resource Efficiency:
 - a. Nonresidential Projects: Provide weather-resistant exterior wall and foundation envelope including prevention of landscape irrigation spray on structures (if any) and prevent water intrusion at exterior entries.
 - b. Construction Waste: Provide construction waste management plan as defined by CALGreen with at least 50% of construction waste diverted from landfill by recycling or salvage for reuse.
 - c. Nonresidential Projects Building Maintenance and Operation: Provide for commissioning requirements as required by CALGreen including but not limited to testing, documentation, and training, testing, and adjusting.
4. Nonresidential Projects Environmental Quality:
 - a. Mechanical Equipment Pollution Control: Cover duct and related air distribution component openings to prevent dust and debris accumulation.
 - b. Finish Material Pollution Control: Comply with CALGreen requirements for volatile organic compound (VOC) emissions including but not necessarily limited to following (as applicable):
 - 1) Adhesives, sealants, and caulks.
 - 2) Paints and coatings.
 - 3) Resilient flooring systems.
 - 4) Composite wood products formaldehyde limitations.
 - c. Filters: Comply with requirements for mechanically ventilated buildings to have air filtration media for outside and return air prior to occupancy.
 - d. Environmental Tobacco Smoke (ETS) Control: Comply with CALGreen requirements for ETS.
 - e. Interior Moisture Control: Comply with California Building Code requirements and CALGreen requirements for vapor retarder at concrete slab foundations and capillary break (aggregate base).
 - f. Building Material Moisture Content: Do not use water damaged building materials, remove and place wet and high moisture content insulation, and do not enclose wall or floor framing when moisture content exceeds 19%.
 - g. Indoor Air Quality: Comply with CALGreen requirements for outside air delivery and carbon dioxide monitoring.
 - h. Environmental Comfort: Comply with CALGreen requirements for whole acoustical control and interior sound control.
 - i. Outdoor Air Quality: Comply with CALGreen requirements for reduction of greenhouse gases and ozone depletion.
- C. Planning and Design: Construction team shall coordinate with Design Team regarding Project Planning and Design methods related to CALGreen requirements related to Project design and shall comply with requirements related to construction.

1.3 QUALITY ASSURANCE

- A. Project Management and Coordination: Contractor to identify one person on Contractor's staff to be responsible for CALGreen issues compliance and coordination.
 - 1. Experience: Environmental project manager to have experience relating to CALGreen building construction.
 - 2. Responsibilities: Carefully review Contract Documents for CALGreen issues, coordinate work of trades, subcontractors, and suppliers; instruct workers relating to environmental issues; and oversee Project Environmental Goals.
 - a. Submittals: Collect, compile, verify, and maintain sufficient information for submittals indicating compliance with applicable CALGreen requirements.
 - 3. Meetings: Discuss CALGreen Goals at following meetings.
 - a. Pre-construction meeting.
 - b. Pre-installation meetings.
 - c. Regularly scheduled job-site meetings.
- B. CALGreen Issues Criteria: Comply with requirements listed in CALGreen and various Specification sections.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General Issues: Do not use materials with moisture stains or with signs of mold or mildew.
 - 1. Moisture Stains: Materials that have evidence of moisture damage, including stains, are not acceptable, including both stored and installed materials; immediately remove from site.
 - 2. Mold and Mildew: Materials that have evidence of growth of molds or of mildew are not acceptable, including both stored and installed materials; immediately remove from site.

2.2 SUBSTITUTIONS

- A. Substitutions Environmental Issues: Requests for substitutions shall comply with requirements specified in Section 01 25 00 – Substitution Procedures, with following additional information required where environmental issues are involved.
 - 1. Indicate each proposed substitution complies with CALGreen requirements.
 - 2. Owner and Architect reserve right to reject proposed substitutions where CALGreen information is not provided and where substitution may impact mandatory requirements or Project voluntary tier requirements.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Environmental Issues: Protect interior materials from water damage; where interior products not intended for wet applications are exposed to moisture, immediately remove from site.
 - 1. Protect installed products using methods that do not support growth of molds and mildews. Immediately remove from site materials with mold and materials with mildew.

END OF SECTION

SECTION 02 41 20

SELECTIVE BUILDING DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Selectively remove materials, systems, components, fixtures and equipment as designated and as required for completion of Project as indicated.
 - 1. Cap and identify active utilities.
- B. Related Sections:
 - 1. Section 01 11 00: Summary of work including hazardous materials requirements.
 - 2. Section 01 50 00: Temporary facilities including barriers and waste management.
 - 3. Section 01 73 00: Cutting and patching.
 - 4. Section 01 74 10: Waste management.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Do not interfere with use of adjacent building spaces not in Project; maintain free and safe passage to and from.
 - 2. Prevent movement of structural components, provide and place bracing and be responsible for safety and support of structural components. Assume liability for movement, settlement, damage, or injury.
 - 3. Cease operations and notify Architect immediately if safety of structural components appears to be endangered; take precautions to properly support structures. Do not resume operations until safety is restored.
 - 4. Prevent dust from selective demolition from contaminating adjacent occupied building areas, clean construction dust from adjacent occupied area immediately upon direction of Building Manager.
- B. Design/Build: Provide special engineering to ensure compliance with applicable codes and Contract Documents for support systems.
- C. Scheduling: Do not close or obstruct roadways without permits. Conduct operations with minimum interference to adjacent traffic.

1.3 SUBMITTALS

- A. Action Submittals: Submit selective demolition operational sequence to ensure Project sequencing is consistent with Owner needs.
- B. Informational Submittals: Submit permits for transport and disposal of debris.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control and for construction waste.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Debris: Maintain possession of materials being demolished except where noted as a material for reinstallation or a material to be retained by Owner. Immediately remove debris from site.
 - 1. Immediately remove from site wet materials and materials with water stains, with mold, and with mildew.
- B. Materials for Reinstallation: Carefully remove, store and protect materials indicated to be reinstalled. Contact Owner and Architect prior to beginning demolition to determine extent of other materials that might be suitable for reinstallation.
 - 1. Inventory and record condition of items to be reinstalled.
- C. Owner Retained Materials: Contact Owner prior to beginning demolition to determine extent of materials to be retained. Carefully remove materials indicated to be retained by Owner; deliver and store where directed.
 - 1. Inventory and record condition of items to be retained by Owner.

PART 3 - EXECUTION

3.1 EXISTING SERVICES

- A. Disconnect or remove utility services as required for completion of Project; disconnect, stub off, and cap utility service lines not required for new construction.
 - 1. Do not remove utilities discovered during demolition but not indicated without first determining purpose for utility, coordinate with Architect and Engineers.
- B. Do not disrupt services to adjacent building areas not in Project.
- C. Place markers to indicate location of disconnected services; identify service lines and capping locations on Project Record Documents.

3.2 DEMOLITION

- A. Demolish indicated appurtenances as indicated and as required for Project completion in an orderly and careful manner.
 - 1. Use methods that do not damage materials indicated to remain.
- B. Perform demolition in accordance with authorities having jurisdiction.

- C. Remove demolished materials from site, unless otherwise directed.
 - 1. Remove from site, contaminated, vermin infested, and dangerous materials encountered and dispose of by safe means so as not to endanger health of workers or public.
- D. Remove tools and equipment upon completion of work; leave area in condition acceptable to Owner and Architect.

3.3 REPAIR

- A. Repair damage to adjacent construction caused as result of this work.
- B. Repair demolition beyond that required.

END OF SECTION

SECTION 05 50 00

METAL FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide stock and custom fabricated metal items scheduled at end of this Section, complete in respect to function as intended.
 - 1. Metal fabrications includes items made from iron and steel shapes, plates, bars, strips, tubes, pipes, and castings which are not a part of structural steel or metal systems specified elsewhere.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's literature for products used in metal fabrications, including paint, grout, and manufactured items.
- B. Shop Drawings: Submit for fabrication and erection of metal fabrications. Indicate profiles, sizes, connection, reinforcing and anchorage.
 - 1. Provide templates for anchorage installation by others.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. System Description: Provide stock and custom fabricated metal items.
- B. Steel Shapes, Plates and Bars: ASTM A36.
- C. Structural Steel Sheet: Hot rolled, ASTM A1011; or cold rolled, ASTM A1008, Class 1; of grade required for design loading.
- D. Steel Pipe: ASTM A53, Type S seamless, grade as selected by fabricator and as required for design loading; minimum standard weight, STD, or Schedule 40.
- E. Steel Tubing: Cold formed ASTM A500; or hot rolled, ASTM A501; minimum Grade B; seamless where exposed.
- F. Castings: Gray iron, ASTM A48, Class 30; malleable iron, ASTM A47.
- G. Concrete Inserts: Threaded or wedge type; galvanized ferrous castings, either malleable iron ASTM A47, or cast steel ASTM A27. Provide bolts, washers and shims as required, hot-dipped galvanized, ASTM A153.
- H. Grout: Non-shrink meeting ASTM C1107, non-metallic, pre-mixed, factory-packaged, non-staining, non-corrosive; type specifically recommended by manufacturer as applicable to job condition.
- I. Fasteners and Rough Hardware: Type required for specific usage; provide zinc-coated fasteners for exterior use or where built into exterior walls.
- J. Welding Materials: AWS D1.1, type required for materials being welded.

K. Paint: Provide primers as recommended by paint manufacturers for substrates and paints specified in Section 09 90 00 – Painting and Coating.

1. Galvanizing Repair Paint: High zinc-dust content paint for re-galvanizing welds in galvanized steel.

2.2 FABRICATION

- A. Fabricate items with joints neatly fitted and properly secured.
- B. Grind exposed welds continuous, smooth, and flush with adjacent finished surfaces, and ease exposed edges to approximate 1/32" uniform radius.
- C. Exposed Mechanical Fastenings: Flush countersunk fasteners unobtrusively located, consistent with design of structure.
- D. Fit and shop assemble in largest practical sections for delivery.
- E. Make exposed joints flush butt type, hairline joints where mechanically fastened.
 1. Fabricate joints exposed to weather in manner to exclude water or provide weep holes where water could accumulate.
- F. Supply components required for proper anchorage of metal fabrications; fabricate anchorage and related components of same material and finish as metal fabrication.
- G. Pre-Engineered Support Systems: Provide manufactured pre-engineered support system consisting of channel supports with anchors, attachments, and accessories as required for complete installation. Sizes to support anticipated loads.
 1. Manufacturers:
 - a. Unistrut Inc./Unistrut.
 - b. Grinnell Corp./PowerStrut.
 - c. Thomas & Betts, Inc./Superstrut.
 - d. Substitutions: Refer to Section 01 25 00.
 2. Finish: Manufacturer's standard prime paint finish for channel supports; galvanized or similar plated anchors and fasteners; hot dip galvanized where at exterior and exterior exposed applications.
- H. Finishes: Prime paint metal fabrications unless otherwise noted in Schedule; comply with requirements of Section 09 90 00 - Painting and Coating for preparation and priming.
 1. Thoroughly clean surfaces of rust, scale, grease, and foreign matter prior to applying finish.
 2. Do not shop prime surfaces in contact with concrete or requiring field welding; shop prime in one coat.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible; do not delay job progress; allow for trimming and fitting where necessary.

3.2 ERECTION

- A. Obtain Architect's review prior to site cutting and adjusting which are not part of scheduled work.
 - 1. Perform cutting and altering for installation and coordination with other work.
- B. Install items square and level, accurately fitted and free from distortion or defects detrimental to appearance or performance.
 - 1. Supply items required to be cast into or embedded in other materials to appropriate trades.
 - 2. Ensure alignment with adjacent construction; coordinate with related work to ensure no interruption in installation.
- C. Make provision for erection stresses by temporary bracing; keep work in alignment.
- D. Field bolt and weld to match standard of shop bolting and welding; hide bolts and screws whenever possible, where not hidden, use flush countersunk fastenings.
 - 1. Perform field welding in accordance with AWS D1.1.
- E. After installation, touch-up field welds and scratched and damaged surfaces; use primer consistent with shop coat or recommended for galvanized surfaces, as applicable.
- F. Replace items damaged in course of installation and construction.

3.3 SCHEDULE

- A. Supply and install metal fabrications listed in Schedule, complete with anchorage and attachments necessary for installation.
 - 1. Schedule lists principal items only, refer to Drawings for items not listed.
- B. Schedule:
 - 1. Miscellaneous angles, plates, and attachments to be set in concrete or masonry for anchorage of other items.
 - 2. Iron and steel shapes, sleeves, anchors, connectors, and fastenings required to complete construction work, and which are not provided in other Specification sections.
 - a. Rough hardware, including bolts, fabricated plates, anchors, hangers, dowels, and miscellaneous metals.
 - 3. Pre-engineered support systems.

END OF SECTION

SECTION 06 20 00

FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide finish carpentry with accessories as required for complete installation.

1. Provide opaque painted wood trim and jambs including new wood base.

- B. Related Sections:

1. Section 09 01 60: Wood flooring restoration.
2. Section 09 01 66: Existing wood restoration.

1.2 REFERENCES

- A. North American Architectural Woodwork (NAAWS).

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination, Wood Jambs: Coordinate wood door jambs with Section 08 14 00 – Wood Doors for pre-hung wood doors.

1.4 SUBMITTALS

- A. Product Data: Submit literature for manufactured items.
- B. Shop Drawings: Indicate materials and wood species, component profiles, fastening, and joining details, finishes, and accessories.
- C. Samples: Furnish samples of each type of finish carpentry.
- D. Assurance Options: NAAWS certification and monitored compliance programs will not be required for finish carpentry.

1.5 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for adhesives, sealants, and caulks, and for composite wood products formaldehyde limitations.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver materials until site conditions are adequate to receive work; protect items from weather while in transit.
- B. Store materials indoors, in ventilated areas with constant but minimum temperature of 60-degrees F and maximum relative humidity of 25% to 55%.
- C. Do not begin installation of finish carpentry until space is fully enclosed and mechanical systems are fully operational.

1. Maintain installation areas at 70-degrees F and 50% to 55% relative humidity.

D. Immediately remove from site materials with visible mold and materials with mildew.

PART 2 - PRODUCTS

2.1 MATERIALS

A. System Description: Provide finish carpentry systems specified complying with North American Architectural Woodwork Standards (NAAWS) and including accessories as required for complete installation.

B. Opaque Painted Interior Wood Trim and Jambs including New Wood Base:

1. Quality: NAAWS/Custom Grade.
2. Wood: White Birch or Poplar.
3. Texture: Surfaced.

C. Anchors, Nails and Screws: Select the material, type, size, and finish required by each substrate for secure anchorage; provide toothed steel or lead expansion bolt screws for drilled-in-place anchors.

D. Wood Filler: Color to match wood being filled.

2.1 FABRICATION

A. Fabricate finish carpentry items in accordance with specified quality standard.

B. Use exposed fastening devices or nails only when approved and unavoidable; arrange neatly.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication where possible; do not delay job progress, allow for trimming and fitting.

B. Verify surfaces are ready to receive work and field measurements are as shown on shop drawings.

1. Beginning installation signifies acceptance of conditions.

C. Ensure mechanical and electrical items affecting work are properly placed, complete, and have been inspected by applicable authorities prior to commencement of installation.

D. Inspect each piece of finish carpentry and discard damaged and defective pieces.

3.2 INSTALLATION

A. Install work consistent with specified NAAWS quality grade, plumb, level, true and straight with no distortions; shim as required, using concealed shims.

1. Prime paint surfaces in contact with cementitious materials prior to installation; comply with requirements of Section 09 90 00 – Painting and Coating.

B. Secure work to blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation.

- C. Scribe and cut for accurate fit to other finished work.
- D. Install finish carpentry in single, unjointed lengths for openings and for runs less than 10'-0".
 - 1. For longer runs, use only one piece less than 10'-0" in any straight run; provide scarf joints between members.
 - 2. Stagger joints in adjacent members.
 - 3. Cope at returns and miter at corners.
- E. Accessories: Install accessories in accordance with manufacturer's recommendations in locations indicated or as directed by Architect.
- F. Acceptable Tolerances:
 - 1. Variation from True Position: Maximum 1/16" at any position and maximum 1/8" in any 10'-0" length.
 - 2. Adjoining Surfaces of Same Material: No variation permitted.
 - 3. Offset with Abutting Materials: Maximum 1/32".
- G. Preparation for Field Finishing:
 - 1. Sand work smooth and set exposed nails and screws.
 - 2. Apply wood filler in exposed nail and screw indentations and leave ready to receive site-applied finishes.
 - 3. Seal concealed and semi-concealed surfaces; brush apply only, using primer consistent with finish coats specified under Section 09 90 00 – Painting and Coating.

END OF SECTION

SECTION 07 90 00

JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide joint sealants, for joints not specified elsewhere, with backing rods and accessories as required for complete installation.

1. Joint sealants include joint sealers and calking as indicated.

- B. Related Sections:

1. Section 09 21 00: Sealants used for acoustical treatment at gypsum board.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: System requires coordination of sealants with multiple substrates, some required to accept bond, some required to prevent bond.

1. It shall be responsibility of this Section to ensure substrates are suitable for providing bond or preventing bond as required for proper sealant installation and longevity.
2. Where substrates are not suitable provide materials as required to ensure bond such as primers and to prevent bond such as bond-breakers.
3. Coordinate with Architect where change of detail or sealant type is required to ensure proper sealant installation.

- B. Pre-Installation Meeting: Convene not less than one week prior to commencing work of this Section. Require attendance of those directly affecting work of this Section.

1. Review installation procedures and coordination required with related work.

1.3 SUBMITTALS

- A. Product Data: Furnish manufacturer's descriptive literature.

- B. Samples: Furnish samples of each type of exposed joint sealer in required colors.

- C. Certifications:

1. Furnish manufacturer's certification joint sealers comply with Contract Documents and are suitable for Project applications.
2. Furnish certification indicating installers are trained in proper use of specified products, qualified, and familiar with proper installation techniques.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for adhesives, sealants, and caulks.
 - 1. Provide joint sealants as required by applicable codes and regulations to fill joints and openings in building envelope separating conditioned space from unconditioned space.
- B. Installer Qualifications: Firm with minimum five years successful experience on projects of similar type and size, using specified products.
 - 1. Installers shall be familiar with proper application procedures to ensure maximum joint sealer expansion and contraction capabilities.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration period for use, cure time, and mixing instructions.

1.6 SITE CONDITIONS

- A. Do not proceed with installation of joint sealers under unfavorable weather conditions.
- B. Install elastomeric sealants when temperature is in lower third of temperature range recommended by manufacturer.

1.7 WARRANTY

- A. Extended Correction Period: Extend correction period to two years.
 - 1. Repair or replace joint sealers which fail to perform as intended, because of leaking, crumbling, hardening, shrinkage, bleeding, sagging, staining, loss of adhesion, and loss of cohesion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. System Description: Provide joint sealants with backing rods and accessories.
- B. Performance Requirements:
 - 1. Select materials for compatibility with joint surfaces and indicated exposures.
 - 2. Where not indicated, select modulus of elasticity and hardness or grade recommended by manufacturer for each application indicated.
 - 3. Comply with applicable limitations on volatile organic compound (VOC) emissions.
- C. Regulatory Requirements: Comply with applicable regulatory requirements regarding limitations on volatile organic compound (VOC) emissions limitations.

D. Elastomeric Sealants:

1. Multi-Component Polyurethane Sealant: ASTM C920, Type M, Grade P, Class 25, self-leveling; minimum 25% expansion and compaction capability.
 - a. Provide at traffic bearing locations.
 - b. Manufacturers:
 - 1) Pecora Corp./Urexpan NR-200, or Dynatrol II-SG.
 - 2) Tremco/THC 900-901, or Vulkem 445 SSL.
 - 3) BASF/MasterSeal SL 2
 - 4) Substitutions: Refer to Section 01 25 00.
2. Mildew-Resistant Silicone Rubber Sealant: ASTM C920, Type S, Grade NS, Class 25, compounded with fungicide, specifically for mildew resistance and recommended for interior joints in wet areas.
 - a. Provide at interior joints in wet areas.
 - b. Manufacturers:
 - 1) GE (Momentive Performance Materials)/SCS 1702 Sanitary Sealant.
 - 2) Dow/786 Bathtub Caulk.
 - 3) Pecora Corp./898 Sanitary Mildew Resistant Sealant.
 - 4) Substitutions: Refer to Section 01 25 00.

E. Non-Elastomeric Sealants:

1. Acrylic-Emulsion Sealant: ASTM C834 acrylic or latex-rubber-modified acrylic sealant, permanently flexible, non-staining, and non-bleeding; recommended for general interior exposure; compatible with paints specified in Section 09 90 00.
 - a. Provide at general interior applications.
 - b. Manufacturers:
 - 1) Pecora Corp./AC-20.
 - 2) Tremco/Tremflex 834.
 - 3) Substitutions: Refer to Section 01 25 00.
2. Air Seals: Provide non-staining and non-bleeding sealers, calks, or foams appropriate to specific applications for filling openings between conditioned and unconditioned spaces.
 - a. Type: As recommended by manufacturer for each specific application; compatible with adjacent materials.
 - b. Manufacturers:
 - 1) Dow/Great Stuff.
 - 2) Owens Corning/EnergyComplete Air Sealant.
 - 3) Hilti/Foam Filler CF 812.
 - 4) Substitutions: Refer to Section 01 25 00.
 - c. Pest Control Mesh: Openings subject to pest infiltration to have 304 stainless steel wool, material stuffed in joint before application of air seals using methods to ensure blocking of gap from pests.

F. Miscellaneous Materials:

1. Primers/Sealers: Non-staining types recommended by joint sealer manufacturer for joint surfaces to be primed or sealed.
2. Joint Cleaners: Non-corrosive types recommended by joint sealer manufacturer; compatible with joint forming materials.
3. Bond Breaker Tape: Polyethylene tape as recommended by joint sealer manufacturer where bond to substrate or joint filler must be avoided for proper performance of joint sealer.
4. Sealant Backer Rod: Compressible polyethylene foam rod or other flexible, permanent, durable non-absorptive material as recommended by joint sealer manufacturer for compatibility with joint sealer.
 - a. Oversize backer rod minimum 30% to 50% of joint opening.

- G. Colors: As indicated, as selected by Architect from manufacturer's full range of colors where not indicated.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare joint surfaces in accordance with ASTM C1193 and as recommended by joint sealer manufacturer.
- B. Clean joint surfaces immediately before installation of joint sealer; remove dirt, insecure materials, moisture, and other substances which could interfere with bond of joint sealer.
- C. Prime or seal joint surfaces when recommended by joint sealer manufacturer; do not allow primer/sealer to spill or migrate onto adjoining surfaces.
- D. Ensure protective coatings on surfaces in contact with joint sealers have been completely stripped.

3.2 INSTALLATION

- A. Comply with manufacturer's printed instructions and ASTM C1193, except where more stringent requirements are shown or specified.
- B. Pest Control: Install stainless steel wool prior to application of backer rods and bond breakers at air seal and as required to ensure complete pest blockage at joints where pest intrusion is a potential.
- C. Set sealant backer rods at proper depth or position in joint to coordinate with other work, including installation of bond breakers and sealant; do not leave voids or gaps between ends of backer rods.
 1. Do not stretch, twist, puncture, or tear backer rods.

- D. Install bond breaker tape as required to avoid three-sided bond of sealant to substrate and where required by manufacturer's recommendations to ensure joint sealers will perform properly.
- E. Size materials to achieve required width/depth ratios.
- F. Employ installation techniques that will ensure joint sealers are deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of bond surfaces equally on opposite sides.
- G. Joint Configuration: Fill sealant joint to a slightly concave surface, slightly below adjoining surfaces, unless otherwise indicated.
- H. Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture or dirt.
- I. Install joint sealers to depths recommended by joint sealer manufacturer but within the following general limitations, measured at center (thin) section of bead.
 - 1. Horizontal Joints: 75% width with minimum depth of 3/8".
 - 2. Elastomeric Joints: 50% width with minimum depth of 1/4".
 - 3. Non-Elastomeric Joints: 75% to 125% of joint width.
- J. Spillage: Do not allow sealants or compounds to overflow or spill onto adjoining surfaces, or to migrate into voids of adjoining surfaces.
 - 1. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage.
- K. Cure joint sealers in compliance with manufacturer's instructions and recommendations to obtain high early bond strength, internal cohesive strength, and surface durability.
- L. Maintain finished joints free of embedded matter, ridges, and sags.

END OF SECTION

SECTION 08 14 00

WOOD DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide flush wood doors as indicated.
 - 1. Contractor Option: Provide shop finished wood doors.
- B. Related Work
 - 1. Section 06 20 00: Wood door frames.
 - 2. Section 08 71 00: Door hardware.

1.2 REFERENCES

- A. North American Architectural Woodwork Standards (NAAWS).
- B. Window and Door Manufacturer's Association (WDMA): Guide Specifications.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Wood Jambs: Coordinate with Section 06 20 00 – Finish Carpentry for pre-fit wood doors for door jambs.
 - 2. Hardware: Coordinate hardware installation with Section 08 71 00 – Door Hardware.
 - 3. Painting: Coordinate with Section 09 90 00 – Painting and Coating whether wood doors are to be shop finished or field painted.

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's literature.
- B. Shop Drawings: Indicate general construction, jointing methods, hardware locations, and locations of cut-outs.
- C. Samples: Submit samples of wood doors indicating construction, veneering, and finish.
 - 1. Submit shop finish for wood doors where doors are furnished shop finished.
- D. Certificates: Submit manufacturer certification indicating compliance to applicable requirements of either NAAWS or WDMA Standards; note which standards were followed or if both standards have been met.

1.5 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for composite wood products formaldehyde limitations and paints and coatings.

1.6 SITE CONDITIONS

- A. Do not deliver or install doors until conditions for temperature and relative humidity have been stabilized in accordance with referenced standards requirements applicable to Project location.

1.7 WARRANTY

- A. Extended Correction Period: Provide for replacing, rehanging, and refinishing wood doors exhibiting defects in materials or workmanship including warp and delamination.
 - 1. Period: Two years.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. VT Industries including Eggers.
- B. Masonite Architectural including Marshfield and Algoma.
- C. Haley Brothers, Inc.
- D. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide flush wood doors as indicated.
- B. Solid Core Flush Wood Doors: NAAWS/Premium Grade, 5 Ply Hot Press, 1-3/4" thick solid wood framed glued block construction or particleboard core five ply construction; Contractor option to use WDMA comparable standards.
 - 1. Opaque Painted Wood Veneers: NAAWS/Custom Grade White Birch veneers for opaque finish; nominal 1/40" thick before sanding, not less than 1/50" after sanding.
 - 2. Edges: Stile edges to match face veneer, minimum 1-1/8" thick after trim.
 - 3. Core: Bond stiles and rails to core and sand prior to assembly of face veneers.
 - 4. Bond Type: Provide Type II Bond for interior doors.

2.3 FABRICATION

- A. Fabricate doors in accordance with requirements of specified standards.
 - 1. Pre-fit wood doors.

2. Prepare doors to receive hardware in shop, refer to Section 08 71 00 for hardware requirements and templates.
 3. Factory machine doors for mortise hardware.
- B. Bevel strike edge of single-acting doors, 1/8" in 2".
- C. Shop Finished Doors (Contractor Option): Conform to requirements specified in Section 09 90 00 – Painting and Coating.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install wood doors in accordance with manufacturer's recommendations and installation instructions, and reference standards, plumb and square, and with maximum diagonal distortion of 1/16".
- B. Rehang or replace doors which do not swing or operate freely.

3.2 PROTECTION

- A. Protection: Protect doors as recommended by door manufacturer to ensure doors are without damage at time of Substantial Completion.
1. Shop Finished Doors: Refinish or replace damaged doors.

END OF SECTION

SECTION 08 71 00

DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide hardware for wood doors.
 - 1. Hardware Schedule: Contractor hired Architectural Hardware Consultant (AHC) to develop Hardware Schedule based on requirements in Contract Documents and applicable codes and regulations.

1.2 REFERENCES

- A. ANSI A115W Series: Door and Frame Preparation Standards.
- B. ANSI A156 Series: Standards for various hardware items.
- C. California Building Code: California Code of Regulations, Title 24, Part 2.
- D. Americans with Disabilities Act (ADA) Standards.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Hardware Schedule: Contractor to develop Hardware Schedule based on requirements in Contract Documents with Architectural Hardware Consultant (AHC) with not less than five years successful experience in scheduling hardware.
 - 1. AHC may be independent or may be employed by manufacturer or supplier.
- B. Coordination: Coordinate hardware installation doors including but not necessarily limited to following.
 - 1. Coordinate hardware with installation with wood doors installation in Section 08 14 00.
- C. Pre-Installation Meeting: Convene pre-installation meeting prior to commencing work of this section. Include persons involved with installation of doors, frames, and hardware.

1.4 SUBMITTALS

- A. Product Data: Submit catalog cuts for each type of hardware clearly marked to indicate hardware type to be provided, style, finish, and options.
 - 1. Supply templates to door and frame manufacturers for proper and accurate sizing and locations of cut-outs for hardware.
- B. Shop Drawings: Indicate locations and mounting heights of hardware.
- C. Samples: Indicate required style and finish of exposed door hardware.

- D. Keying Schedule: Coordinate directly with Owner's Representative.
- E. AHC Certification: Submit certification by AHC indicating hardware complies with applicable codes and Contract Documents.
- F. Closeout Submittal: Record actual locations of installed cylinders and master key codes on Project Record Documents.
- G. Maintenance Materials: Submit manufacturer's parts list and maintenance instructions for each type of hardware supplied and necessary wrenches and tools required for proper maintenance of hardware.

1.5 QUALITY ASSURANCE

- A. Supplier Qualifications: Recognized builder's hardware supplier with minimum five years successful experience in scheduling and furnishing hardware.
 - 1. Provide services of architectural hardware consultant to supervise hardware supply.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hardware in manufacturer's original packages, marked for intended opening and use.
- B. Pack with necessary screws, bolts, keys, instructions, and installation template, if necessary, for spotting mortising tools.
- C. Upon delivery, furnish complete list of hardware for checking, clearly marked to correspond with marking on each package.
 - 1. Review list for completeness and accuracy.

1.7 WARRANTY

- A. Extended Correction Period: Provide for correcting failure of hardware to perform properly, including maintaining accessibility requirements. Repair hardware or replace damaged materials and surfaces.
 - 1. Period: Two years.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. System Description: Provide door hardware and accessories as required for complete operational installation.
 - 1. Review Drawings for door locations and types; comply with following general requirements; inform Architect where conflicts occur.
 - 2. Provide hardware items with accessories complete to door function as intended, as specified, and as required by applicable codes and regulations.
 - 3. Provide heavy duty commercial grade units of each type of hardware (hinges, pivots, locksets, latchsets, closers, trim) from single manufacturer unless otherwise indicated.

B. Regulatory Requirements:

1. Access for Persons with Disabilities: Comply with California Building Code and Americans with Disabilities Act (ADA) Standards.

C. Design Requirements:

1. Finishes: Provide finishes to match: other hardware on same door; hardware on other doors in same area; and as required to match other metal finishes in same room such a white metal finishes in bathrooms with chrome fixtures.
2. Security: Coordinate security requirements such as locking, electrically controlled hardware, and electric monitoring devices directly with Owner and Owner's security consultant.
3. Complete Sets: Provide complete sets of hardware for each door considering requirements for both sides of doors and including coordinating devices and accessories as would normally be anticipated for specific door applications.

D. Hinges and Butts: ANSI A156.1; comply with following unless otherwise indicated.

1. Manufacturers:

- a. Hager Co.
- b. Lawrence Hardware Inc.
- c. McKinney Products Co., Div of ASSA ABLOY.
- d. Stanley Hardware Division of Stanley Works.
- e. Substitutions: Refer to Section 01 25 00.

2. Doors 1-3/4" Thick: 4-1/2" heavy weight, extra heavy weight ball or oilite bearing where over 40" wide.

- a. Provide widths to clear trim projection when door swings 180 degrees.

3. Provide minimum three hinges to 90" high, four hinges to 120" high for each door leaf, unless otherwise indicated.

4. Provide nonferrous butts with non-removable pins at exterior and locked out-swinging doors, non-rising at interior doors; stainless steel where labeled; steel butts at labeled interior doors.

5. Provide ball bearing or oilite bearing hinges at doors with closers.

6. Tips: Flat button tips with matching plug unless otherwise indicated.

E. Locking Devices: Provide of metal matching specified finish; interior parts of steel and zinc-dichromate plating, to resist rusting and corrosion; do not supply plastic, die-cast or aluminum mechanisms.

1. Manufacturers:

- a. Schlage Lock Co. Div. Allegion.
- b. Sargent Manufacturing Co., Division of ASSA ABLOY Group.
- c. Yale Security, Inc. Division of ASSA ABLOY Group.
- d. Best Access Systems a Stanley Company.
- e. Substitutions: Refer to Section 01 25 00.

2. Type: Provide locksets with not less than 6 pin tumbler cylinders unless higher level of security is required by Owner.
 - a. Cylindrical Privacy Locksets: ANSI A156.2, Series 4000, Grade 1, Bored Type (cylindrical).
 3. Lockset and Latchset Design: Solid lever with rose to match other interior hardware levers and rose.
 4. Backset: 2-3/4".
 5. Strikes: Furnish standard strikes with extended lips where required to protect trim from being marred by latch bolt; verify type of cutouts provided in metal frames.
- F. Stops, Trim, and Miscellaneous Hardware: Provide as indicated, as specified, as included in Hardware Schedule, and as required for complete installation.
1. Manufacturers:
 - a. Builders Brass Works Corp.
 - b. Glynn-Johnson Co. Div. Allegion.
 - c. Ives Div. Allegion.
 - d. National Guard Products.
 - e. Pemko Mfg. Co. Div. ASSA ABLOY.
 - f. Trimco, Triangle Brass Mfg. Co.
 - g. Zero International, Inc., Div. Allegion.
 - h. Substitutions: Refer to Section 01 25 00.
 2. Doorstops: Required at all doors; locate as indicated, as required to minimize trip hazard and obstruction as approved and where not otherwise indicated.

2.2 ACCESSORIES

- A. General: Provide complete hardware with accessories as required for doors and applications indicated.
- B. Templates: Furnish templates or physical hardware items to manufacturers concerned sufficiently in advance to avoid delay in Work.
- C. Reinforcing Units: Furnished by door manufacturer, coordinated by hardware manufacturer.
- D. Fasteners: Furnish as recommended by manufacturer and as required to install secure hardware.
 1. Finish: Match hardware.
 2. Furnish screws for items applied on gypsum board sufficiently long to provide solid connection to framing or backing
- E. Through Bolts: Through bolts and grommet nuts shall be avoided on door faces in highly visible areas, unless no alternative is possible, as directed and approved, and shall not be used for solid wood core doors.

2.3 FINISHES

- A. General: Match finish of existing hardware of similar type in Project.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install finish hardware specified under this section, coordinate with manufacturer and installation of doors and frames.
- B. Fit hardware prior to painting. Remove for painting of doors and frames before final installation of hardware.
- C. Install hardware in accordance with manufacturer's instructions.
- D. No extra cost will be allowed because of changes or corrections necessary to facilitate installation of hardware.

3.2 MOUNTING POSITIONS

- A. General: Heights given are center line heights from finished floor; comply with following unless otherwise required by applicable codes or regulations.
 - 1. Locks and Latches: 38" to center of lever.
 - 2. Top Hinge: To jamb manufacturer's standard, but not greater than 10" from head of frame to center line of hinge.
 - 3. Bottom Hinge: To jamb manufacturer's standard, but not greater than 12-1/2" from floor to center line of hinge.
 - 4. Intermediate Hinges: Equally spaced between top and bottom hinges and from each other.
 - 5. Hinge Mortise on Door Leaf: 1/4" to 5/16" from stop side of door.
 - 6. Floor Stops: Maximum 4" from any adjacent wall surface.
- B. Standards: Comply with recommendations of Builders Hardware Manufacturers Association, subject to approval, for heights of items not indicated.

3.3 ADJUSTING

- A. Qualified hardware supplier's or manufacturer's representatives shall inspect installation and adjust hardware for proper operation.
 - 1. Adjust closers, locks, and critical operational hardware.
 - 2. Deliver instructions for maintenance and future adjustments to Owner's Representative.

3.4 HARDWARE SCHEDULE

- A. The Hardware Schedule or Hardware Groups shall be prepared by an Architectural Hardware Consultant hired by Contractor.
 - 1. AHC to Examine Drawings and Specifications and furnish proper hardware for door openings.

END OF SECTION

SECTION 09 01 60

WOOD FLOORING RESTORATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Restore existing wood flooring including removing and replacing damaged components, sanding, and refinishing of wood flooring system.
 - 1. Provide transparent floor finish.
- B. Related Work:
 - 1. Section 01 35 20: Historic treatment procedures.
 - 2. Section 09 01 66: Existing wood restoration other than wood flooring.

1.2 REFERENCES

- A. National Wood Flooring Association (NWFA) including NOFMA Standards.
- B. U.S. Department of the Interior, National Park Service: "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings."
- C. U.S. Department of the Interior, National Park Service: "Preservation Briefs."
- D. U.S. Department of the Interior, National Park Service: "Preservation Tech Notes."

1.3 SUBMITTALS

- A. Product Data: Furnish manufacturer's literature for each manufactured item including flooring and finishing.
- B. Shop Drawings: Indicate general locations of wood flooring requiring replacement.
- C. Samples: Submit samples of wood flooring materials for replacement and wood finish samples.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for adhesives, for composite wood products formaldehyde limitations, and for paints and coatings.
- B. Installer Qualifications: Firm with minimum five years successful experience installing specified flooring system.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Transport, store, and handle new wood flooring products by methods to avoid damage, deliver in undamaged condition in manufacturer's packaging.

- B. Store products in accordance with manufacturer's instructions with labels intact and legible.
- C. Store new wood flooring products using methods that protect from moisture including methods that prevent condensation; maintain within temperature and humidity ranges required by manufacturer's instructions.

1.6 SITE CONDITIONS

- A. Do not deliver or install new wood flooring materials until wet construction work is completed and surrounding air has maximum moisture content of 40%.
- B. Provide permanent heat, light, and ventilation prior to installation.
 - 1. Store wood flooring materials in maximum 80-degrees F and minimum 65-degrees F, with maximum relative humidity of 60% and minimum relative humidity of 40%.
- C. Maintain room temperature of minimum 65 degrees F for period of seven days prior to delivery of materials.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Member of National Wood Flooring Association.
- B. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Restore existing wood flooring including removing and replacing damaged components, sanding, and refinishing of wood flooring system.
- B. Performance Requirements: Conform to referenced U.S. Department of the Interior "Standards", "Preservation Briefs", and "Preservation Tech Notes" unless more stringent requirements are indicated.
- C. Treatment: After sanding apply penetrating treatment that does not detrimentally affect wood floor finish.
 - 1. Type: Beecham Home Improvement Products Inc./Woodlife clear penetrating treatment, water-repellent, providing protection against mold, mildew, staining, and decay fungi.
- D. Subflooring: Match existing where damage extends to subflooring.
- E. Wood Flooring Fasteners and Adhesives: Match original and as recommended by NWFA for type of flooring system being restored.
- F. Wood Filler: Type suitable for wood flooring applications; color to match wood being filled.

- G. Floor Finish: Premium quality polyurethane or modified acrylic polyurethane as recommended by NWFA.

- 1. Sheen: Gloss.
- 2. Sealer: As recommended by finish manufacturer.
- 3. Finish Coats: Minimum two coat system over sealer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Review existing wood flooring for damage and delineate on Drawings locations where existing wood floor is damaged beyond that which can be repaired by sanding and refinishing.

3.2 INSTALLATION

- A. Comply with NWFA recommendations for type of wood flooring system being restored to original condition.
- B. Attach new wood flooring to match original wood flooring attachment methods (adhesives and fasteners) and in accordance with NWFA instructions.
 - 1. Leave continuous space between wood flooring and perimeter walls and permanent obstructions.
- C. Ensure joints of new wood flooring are comparable to original flooring joints; ensure permanent attachment to substrate.
 - 1. Stagger end joints of new flooring from existing wood flooring.
- D. Fill minor gouged and damaged wood flooring with wood filler where resultant appearance is consistent with original wood flooring appearance. Remove and replace wood that cannot be restored to original appearance.

3.3 FLOOR FINISH

- A. Sand patched and existing wood flooring indicated to be restored to smooth even finish with no evidence of stains, damage, or sander marks; take precaution to contain dust from this operation.
 - 1. Remove dust by vacuum and mask off adjacent surfaces.
- B. Apply sealer and burnish with No. 2 steel wool using power machine.
- C. Apply finishing materials in minimum two finish coats in accordance with NWFA recommendations, manufacturer's printed instructions and following:
 - 1. Apply first transparent coat, allow to dry and buff with steel wool to remove irregularities.
 - 2. Remove dust by vacuum and damp cloth and apply second coat; allow to dry.

3.4 PROTECTION

- A. Protect floor from traffic until finish is dry, and as recommended by finish material manufacturer.

END OF SECTION

SECTION 09 01 60

WOOD RESTORATION

PART 1 - GENERAL

1.7 SUMMARY

- A. Section Includes: Existing historic wood restoration ceilings and columns including cleaning and removing existing paint to bare wood.
- B. Related Sections:
 - 1. Section 01 35 20: Historic treatment procedures.
 - 2. Section 09 01 60: Wood flooring restoration.

1.8 REFERENCES

- A. U.S. Department of the Interior, National Park Service: "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings."
- B. U.S. Department of the Interior, National Park Service: "Preservation Briefs."
- C. U.S. Department of the Interior, National Park Service: "Preservation Tech Notes."

1.9 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Meeting: Convene not less than one week prior to commencing work of this Section. Require attendance of those directly affecting work of this Section.
 - 1. Review restoration and cleaning procedures and coordination required with related work.

1.10 SUBMITTALS

- A. Product Data: Furnish product data describing methods to be used for cleaning paint from wood.

1.11 QUALITY ASSURANCE

- A. Qualifications: Employ quality craftspersons to perform paint removal from historic wood; where available, employ craftspersons specializing in historic rehabilitation and renovation.
 - 1. Craftsperson: An individual with specialized knowledge and experience capable of recognizing situations that require special attention and experience working with design professions in finding solutions for problems related to historic issues.
- B. Mock-Up: Remove not less than 100 sf of paint for Architect review and approval of acceptable finish.

PART 2 - PRODUCTS

2.3 MATERIALS

- A. System Description: Provide materials as necessary to remove paint from existing historic wood components without damaging wood and without leaving residue in wood that could fall after completion of Project.
 - 1. Use materials recommended for removal of paint from historic wood and as required to match approved mock-up.
 - 2. Materials shall comply with The Secretary of Interior, "Standards for the Treatment of Historic Properties."
- B. Performance Requirements: Conform to referenced U.S. Department of the Interior "Standards", "Preservation Briefs", and "Preservation Tech Notes" unless more stringent requirements are indicated.

PART 3 - EXECUTION

3.5 EXAMINATION

- A. Examine historic wood indicated to have paint removed.
- B. Review existing wood to determine methods for removing paint without damaging wood and without leaving residue.

3.6 PREPARATION

- A. Carefully remove and store fixtures, fittings, hardware, and accessories that could be damaged by wood cleaning operations.
- B. Close off, seal, mask, or board up areas, materials and surfaces not receiving restoration and cleaning work, to protect from damage.

3.7 CLEANING OPERATIONS

- A. Protect adjacent materials and finishes from dust, dirt and other surface or physical damage during wood restoration operations; provide protection as required and remove at completion of work.
- B. Perform restoration in as continuous an operation as possible, utilizing same work crew to maintain continuity of finish.
- C. Process: Use non-staining process to completely remove paint from wood surfaces, ready for applied paint finish.
 - 1. Finish: Provide finish to remove existing paint just sufficient to expose wood grain and natural color. Paint penetrating deeply into cracks, checks, and openings need not be fully removed but paint shall not be at wood surface.
 - 2. Clean corners and edge of carefully, using back-up boards, to maintain uniform corner or edge line.

3.8 CLEANING

- A. Maintain control of chips, dust, and debris in each area of work.
- B. Promptly, as work proceeds and upon completion, remove droppings.
- C. Clean adjacent and adjoining surface of marks arising out of execution of work of this Section.
- D. Clean up daily, sweep up and remove dirt, debris, and rubbish.

3.9 PROTECTION

- A. Protect exposed wood from damage until Substantial Completion.

END OF SECTION

SECTION 09 21 00

GYPSUM BOARD ASSEMBLIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide gypsum board systems including gypsum board, joint treatment, acoustical accessories, and general accessories for complete installation.

1.2 REFERENCES

- A. ASTM C840: Application and Finishing of Gypsum Board.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination, Openings: Obtain dimensions and locations from other trades and provide openings and enclosures for accessories, specialties, equipment, and ductwork.

1.4 SUBMITTALS

- A. Product Data: Furnish manufacturer's literature for framing, insulation, gypsum board, and acoustical accessories.
- B. Manufacturer's Certification: Furnish manufacturer's certification indicating products comply with Contract Documents and applicable codes.

1.5 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for adhesives, sealants, and caulks.

1.6 SITE CONDITIONS

- A. Do not begin installation of interior gypsum board until space is enclosed, space is not exposed to other sources of water, and space is free of standing water.
- B. Maintain areas to receive gypsum board at minimum 50-degree F for 48 hours prior to application and continuously after application until drying of joint compound is complete; comply with ASTM C840.
- C. Immediately remove from site gypsum board for interior use exposed to water, including gypsum board with water stains, with signs of mold, and gypsum board with mildew.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. National Gypsum Co.
- B. Georgia-Pacific Corp.
- C. United States Gypsum Co., USG Corp.
- D. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide gypsum board assemblies including gypsum board, joint treatment, acoustical accessories, and general accessories.

1. Systems Responsibility: Provide products manufactured by or recommended by manufacturer of gypsum board to maintain single-source responsibility for system.
- B. Performance Requirements: Perform gypsum board systems work in accordance with recommendations of ASTM C840 unless otherwise specified.
- C. Gypsum Board: Comply with ASTM C840; maximum permissible lengths; ends square cut, tapered edges on boards to be finished.
 1. Typical: ASTM C1396, Type X, fire rated gypsum board, unless otherwise indicated.
 2. Mold Resistant Gypsum Board: Provide at high humidity areas not covered with tile including but not limited to bathrooms.
 - a. USG Industries/Sheetrock Mold Tough Firecode Core.
 - b. Georgia Pacific/ToughRock Mold-Guard Fireguard X.
 - c. National Gypsum Gold Bond XP Fire-Shield Gypsum Board.
 - d. Substitutions: Refer to Section 01 25 00.
 3. Cementitious Backer Units for FRP: ANSI A118.9 aggregated Portland cement with woven glass-fiber mesh on both faces; approximately 1/2" thick; UL fire rated as required for fire rated assemblies.
 - a. Manufacturers:
 - 1) National Gypsum Co./PermaBase Cement Board.
 - 2) USG Industries, Durabond Division/Durock.
 - 3) Custom Building Products/Wonderboard.
 - 4) James Hardie Building Products/Hardibacker.
 - 5) Substitutions: Refer to Section 01 25 00.
 - b. Contractor Option Coated Glass Mat Backer Units: Georgia Pacific/DenShield, UL fire rated as required to maintain integrity of fire rated assemblies.
- D. Gypsum Board Accessories: Comply with ASTM C840.
 1. Provide protective coated steel corner beads and edge trim; type designed to be concealed in finished construction by tape and joint compound.
 2. Corner Beads: Manufacturer's standard metal beads.
 3. Edge Trim: "J", "L", "LK", or "LC" casing beads.
 4. Reinforcing Tape, Joint Compound, Adhesive, Water, Fasteners: Types recommended by system manufacturer and conforming to ASTM C475.
 - a. Typical Joint Compound: Chemical hardening type for bedding and filling, ready-mixed or powder vinyl type for topping.
- E. Acoustical Accessories: Provide as indicated and as required to achieve acoustical ratings indicated.
 1. Resilient Channels: Provide resilient channels where indicated and where required to provide required sound transmission classifications.
 - a. USG/RC-1.
 - b. ClarkDietrich/RC-Deluxe.

- c. Substitutions: Refer to Section 01 25 00.
- 2. Acoustical Insulation: Preformed mineral fiber, ASTM C665, Type I; friction fit type without integral vapor barrier; as required to meet STC ratings indicated, or of thickness indicated.
- 3. Acoustical Sealant: ASTM C919, type recommended for use in conjunction with gypsum board. Paintable, non-shrinking and non-cracking where exposed, nondrying, non-skinning, non-staining, and nonbleeding where concealed.
 - a. Acoustical Sealant Manufacturers:
 - 1) USG/Sheetrock Acoustical Sealant.
 - 2) Tremco/Acoustical Sealant.
 - 3) Pecora/AC-20.
 - 4) Substitutions: Refer to Section 01 25 00.
- 4. Electrical Box Pads: Provide at outlet, switch, and telephone boxes in walls with acoustical insulation.
 - a. Electrical Box Pad Manufacturers for Non-Fire Rated Partitions:
 - 1) Harry A. Lowry & Associates (800.772.2521)/Lowry's Electrical Box Pads.
 - 2) Tremco Sheet Caulking (650.572.1656).
 - 3) Hevi-Duty Nelson (800.331.7325)/Putty Pads.
 - 4) Specified Technologies, Inc. (800.992.1180)/Putty Pads.
 - 5) Hilti, Corp./Hilti Box Pads.
 - 6) Substitutions: Refer to Section 01 25 00.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Gypsum Board Installation: Install in accordance with ASTM C840 and manufacturer's recommendations.
 - 1. Use screws when fastening gypsum board to furring and to framing.
 - 2. Erect gypsum board with ends and edges occurring over firm bearing.
 - 3. For fire rated systems comply with requirements for fire ratings.
 - 4. Place corner beads at external corners; use longest practical lengths.
 - 5. Place edge trim where gypsum board abuts dissimilar materials.
 - 6. Tape, fill, and sand exposed joints, edges, corners and openings to produce surface ready to receive finishes, feather coats onto adjoining surfaces.
 - 7. Finishing: Comply with Gypsum Association (GA) "Levels of Gypsum Board Finish".
 - a. GA Level 4 (Typical): Provide three-coat finishing and sanding is required for surfaces indicated to be painted; provide flush, smooth joints and surfaces ready for applied paint finishes.
 - 8. Remove and replace defective work.

B. Acoustical Accessories Installation:

1. Place acoustical insulation tight within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
2. Place acoustical sealant within partitions in accordance with manufacturer's recommendations; install acoustical sealant at gypsum board perimeter at:
 - a. Metal Framing: One or two beads.
 - b. Base layer and face layer.
 - c. Penetrations of partitions.
3. Tolerance: Maximum 1/4" space between gypsum board at floor, ceiling, and penetrations and sealed with acoustical sealant.
4. Install electrical box pads with pads molded and pressed on back and all sides of box, closing openings, in accordance with manufacturer's instructions, for complete acoustical barrier.

END OF SECTION

SECTION 09 30 00

TILING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide tile installations with accessories, as required for complete installation.

1. Provide cementitious backer unit tile substrate.

- B. Related Sections:

1. Section 09 21 00: Metal framing and gypsum board.

1.2 REFERENCES

- A. ANSI A108.5: Installation of Tile with Latex-Portland Cement Mortar.
- B. ANSI A108.10: Installation of Grout in Tilework.
- C. ANSI A108.11: Interior Installation of Cementitious Backer Units.
- D. Tile Council of North America (TCNA): Handbook for Ceramic Tile Installation.

1.3 SUBMITTALS

- A. Product Data: Furnish manufacturer's literature for each type of material for Project.
- B. Samples: Furnish each type of tile clearly indicating pattern, coloration, and joints.
1. Color Charts: Submit actual tile sections showing full range of colors, textures, and patterns available for each type of tile.
2. Prepare two 12" square sample panels of each selected type of tile and grout.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for adhesives, sealants, and caulks.

1.5 SITE CONDITIONS

- A. Provide heat and ventilation in areas where ceramic tile work is being performed, to allow tile to properly set.
- B. Take precautionary measures necessary to ensure excessive temperature changes do not occur.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. System Description: Provide tile installations with tile, grout, setting materials, and accessories as indicated.

- B. Regulatory Requirements, Slip-Resistance: Hard surface finishes to comply with requirements of authorities having jurisdiction for slip-resistant hard surfaces, including general code requirements and access for persons with disabilities.
- C. Tile: Ceramic mosaic floor tile and special 3" by 6" by 5/16" thick wall tiles as indicated.
 - 1. Manufacturers:
 - a. Dal-Tile Corp.
 - b. Substitutions: Not permitted; wall tile thickness is critical.
 - 2. Color, Style, and Pattern: As indicated on Finish Schedule and shown on Drawings.
 - a. Match Architect approved samples.
 - 3. Base and Trim: Provide matching trim pieces, coordinated with sizes and coursing of adjoining flat tile as directed by Architect; types as indicated, as selected by Architect where not indicated.
- D. Latex Thin Set: Thin set bond coat, consisting of latex-cementitious mortar conforming to ANSI A118.4.
 - 1. Manufacturers:
 - a. Laticrete International Inc.
 - b. Bostik Construction Products/Hydroment.
 - c. Custom Building Products.
 - d. Mapei Corp.
 - e. Merkrete.
 - f. Substitutions: Refer to Section 01 25 00.
- E. Latex-Cement Grout: ANSI A118.7, latex-cementitious type, uniform in color, resistant to shrinkage.
 - 1. Manufacturers:
 - a. Laticrete International Inc.
 - b. Bostik Construction Products/Hydroment.
 - c. Custom Building Products.
 - d. Mapei Corp.
 - e. Merkrete.
 - f. Substitutions: Refer to Section 01 25 00.
 - 2. Color: Match tile unless otherwise indicated.
- F. Cementitious Backer Units: ANSI A118.9 aggregated Portland cement with woven glass-fiber mesh on both faces; approximately 1/2" thick; UL fire rated as required to maintain integrity of fire rated assemblies.
 - 1. Manufacturers:
 - a. USG Industries, Durabond Division/Durock.
 - b. National Gypsum Co./PermaBase Cement Board.
 - c. Custom Building Products/Wonderboard.
 - d. Substitutions: Refer to Section 01 25 00.
 - 2. Contractor Option Coated Glass Mat Backer Units: Georgia Pacific/DenShield, UL fire rated as required to maintain integrity of fire rated assemblies.
- G. Cleaning and Sealing Materials: As recommended by tile and grout manufacturers but not less than following.

1. Manufactures:

- a. Laticrete International Inc./Stonetech.
- b. Bostik Construction Products/Hydroment CeramaSeal.
- c. Substitutions: Refer to Section 01 25 00.

H. Accessories: Provide as indicated and as required for complete tile installation for applications indicated.

2.1 MIXES

- A. Mix and proportion cementitious materials for site-made leveling coats, setting beds and grout as recommended by the TCNA Handbook for Ceramic Tile Installation.
- B. Mix and proportion pre-mixed setting beds and grout materials in accordance with manufacturer's recommendations.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prior to installing tile, ensure surfaces are level; comply with TCNA and tile manufacturer recommendations but not greater than following.
 - 1. Thin Set Tile Tolerance: Maximum surface variation of 1/8" in 10'-0".
- B. Ensure surfaces are clean and well cured.
- C. Do not commence work until surface conditions are within tolerances required for proper installation; apply latex leveling material where necessary to meet required tolerances.
- D. Backer Units: Install units in accordance with ANSI A108.11, manufacturer's recommendations, and as required to provide fire ratings indicated on Drawings.

3.2 INSTALLATION

- A. Install tile in accordance with manufacturer recommendations and installation instructions, referenced ANSI Standards, and TCNA recommendations for type of substrate and indicated setting method.
 - 1. Contractor, installers, and manufacturer representatives shall inform Architect where actual conditions are not covered and where providing similar materials and systems do not comply with TCNA or manufacturer recommendations.
 - a. Where specified, or similar materials and systems do not comply with TCNA or manufacturer recommendations, submit proposed substitutions along with statement substitutions are of comparable quality to specified materials.
- B. Following systems shall form the basis of tile installation systems required for Project. Where Project conditions vary from TCNA and manufacturer recommendations, notify Architect immediately. Where different use similar materials and systems as appropriate.
 - 1. Latex-Cement Thin Set Floors over Concrete: TCNA F113.
 - 2. Latex-Cement Thin Set Wall Tile over Cementitious Backer Units: TCNA W244.
 - 3. Latex-Cement Thin Set Wall Tile over Coated Glass Mat Backer Units: TCNA W245.
- C. Place tile in accordance with patterns indicated on Drawings or as directed by Architect; carefully plan tile layouts, ensure pattern is uninterrupted from one surface to the next and through doorways.
 - 1. Apply latex thin set to back of tile where necessary to ensure 100% bond between bond coat and substrate; replace tiles which break due to voids between tile and substrate.
- D. Neatly cut tile around fixtures and drains; accurately form corners, base, intersections and returns.
 - 1. Base, Coves: Flush cove type with base grout joint on wall, cove tile on floor, unless otherwise indicated.
 - 2. Corners and Edges: Bullnose tile unless otherwise indicated.

- E. Locate expansion joints, control joints, contraction joints, and isolation joints where indicated; where not indicated, provide as recommended by TCNA Handbook and as approved by Architect.
- F. Ensure tile joints are uniform in width, subject to normal variance in tolerance allowed in tile size; ensure joints are watertight, without voids, cracks, excess mortar, or grout.
- G. Sound tile after setting, remove and replace hollow sounding units.
- H. Allow tile to set for a minimum 48 hours prior to grouting.
- I. Grout tile to comply with recommendations of TCNA and as specified.
- J. Leave completed installation free of broken, damaged, and faulty tile.

3.2 CLEANING AND SEALING

- A. Clean tile surfaces free of foreign matter upon completion of grouting.
- B. Seal tile and grout surfaces when recommended by manufacturer for materials and applications involved; comply with manufacturer's recommendations.

END OF SECTION

SECTION 09 90 00

PAINTING AND COATING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide painting and finishing of exposed items and surfaces requiring field painting and finishing including shop primed items.
 - 1. Specified surface preparation, priming and coats of paint are in addition to shop-priming and surface treatment specified under other sections of work.
 - 2. Painting and finishing include field finishing of exterior and interior items not listed as "Surfaces not to be Painted" unless clearly indicated otherwise.
 - 3. Painting and finishing include field finishing of select shop finished items such as mechanical grilles and registers and shop primed items such as access panels and louvers in doors, to match adjacent surfaces.
 - a. Match adjacent surfaces in color and sheen unless otherwise indicated.
 - 4. Field paint exposed bare and covered pipes, ducts, and hangers, exposed steel and iron work, and primed metal surfaces of equipment installed under mechanical and electrical work in occupied spaces.
 - 5. Wood Doors: Contractor option to factory finish or field finish, coordinate with Section 08 14 00 - Wood Doors.
- B. Surfaces Not to be Painted:
 - 1. Finished items including finished metal surfaces.
 - 2. Walls and ceilings in concealed areas and generally inaccessible areas.
 - 3. Moving parts of operating mechanical and electrical units.
 - 4. Labels: Keep equipment identification and fire rating labels free of paint.
- C. Related Sections: Shop priming of ferrous metal items is included under various Specification sections.
 - 1. Section 09 01 60: Wood flooring restoration finish.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's technical information, including paint label analysis and application instructions for each material.
- B. Samples: Submit samples for review of color and texture; provide list of material and application for each coat of each finish sample.
 - 1. Brush-Outs: Submit samples of each color and material with texture to simulate actual conditions, on hardboard.
 - a. Submit 8" by 10" samples of wood finishes on actual wood surfaces; label and identify each as to location and application.
- C. Manufacturer Certificates: Furnish certificates from each manufacturer stating materials are top quality lines and suitable for intended use on this Project.

1.3 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for paints and coatings.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to job site in original, new, and unopened packages and containers bearing manufacturer's name and label, with:
 - 1. Name of material, color, and sheen.
 - 2. Manufacturer's name, stock number and date of manufacture.
 - 3. Contents by volume, for major pigment and vehicle constituents.
 - 4. Thinning and application instructions.

1.5 SITE CONDITIONS

- A. Apply water-based paints when temperature of surfaces and surrounding air are between 50 and 90-degrees F.
- B. Do not apply paint in rain, fog, or mist; or when relative humidity exceeds 85 percent; or to damp or wet surfaces.
- C. Painting may be continued during inclement weather if areas to be painted are enclosed and heated within temperature limits specified.
- D. Provide additional temporary ventilation during interior application of paints to eliminate volatile organic compound (VOC) emissions from interior spaces as quickly as possible.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. Sherwin-Williams Co.
- B. Benjamin Moore & Co.
- C. PPG Industries.
- D. Dunn-Edwards Corp.
- E. Kelly Moore Paint Co.
- F. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide painting and finishing of exposed items and surfaces requiring field painting and finishing including shop primed items.
 - 1. Definition: "Painting" and "coating" as used herein means systems including primers, emulsions, enamels, stains, sealers, and fillers, whether used as prime, intermediate or finish coats.
- B. Regulatory Requirements:

1. Volatile Organic Compound (VOC) Emissions: Furnish materials approved for use by applicable air quality management district for limitations of volatile organic compounds for architectural or special coatings as applicable.
- C. Material Quality: Provide top line quality commercial grade (professional painter) paints; materials not bearing manufacturer's identification as their top line product shall not be acceptable.
 1. Primers: Provide premium grade primers recommended by paint manufacturer for substrates indicated and for finish systems specified.
 2. Undercoats and Barrier Coats: Provide undercoat paints produced by same manufacturer as finish coats; use only thinners approved by paint manufacturer and use only within recommended limits.
 3. Finish Coats: Provide finish coats capable of being washed with mild detergent without loss of color, sheen, or pigments.
 - a. Color pigments: Pure, non-fading, applicable types to suit substrates and service indicated; no lead content permitted.
 4. Finish Coat Coordination: Provide finish coats which are compatible with prime paints, undercoats, and barrier coats used.
 - a. Review other Specification sections in which prime paints are provided; ensure compatibility of total coatings systems.
 - b. Upon request from other trades furnish information on characteristics of finish materials proposed for use.
 - c. Provide barrier coats over incompatible primers or remove and prime as required.
 - d. Notify Architect in writing of any anticipated problems in use of specified coating systems with substrates primed by others.
- D. Colors and Finishes: Prior to commencement of painting work, Architect will furnish color chips for surfaces to be painted.
 1. Use of proprietary names in color selection is not intended to imply exclusion of equivalent products of other manufacturers.
 2. Final acceptance of colors will be from samples applied on site.
 3. Colors: As indicated on Finish Schedules, as directed by Architect where not otherwise indicated.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Inspection: Examine areas and conditions under which painting work is to be applied.
 1. Start of painting work indicates acceptance of surfaces and conditions of surfaces and conditions within any area.
 2. Where exposed items or surfaces are not specifically mentioned in Schedules, paint same as adjacent similar materials or areas.

3. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to a durable paint film.
- B. Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as specified for substrate condition.
 1. Existing Painted Finishes:
 - a. Clean existing painted surfaces and remove oil, grease, dust, stains, scale, efflorescence, mildew, mold, algae, blisters, and non-adhering paint.
 - b. Measure adhesion of existing paints using ASTM D3359 tape test; remove existing coatings where poor adhesion is indicated.
 - c. Feather edges of severely deteriorated paint where several coats are removed as part of cleaning, to provide smooth transition for new paint.
 - d. Fill holes, cracks, and defects and fill and sand smooth, ready for new paint finish.
 - C. Remove hardware, accessories, and items in place and not to be painted, or provide protection prior to surface preparation and painting; after painting reinstall removed items.
 - D. Clean surfaces before applying paint; remove oil and grease prior to mechanical cleaning; program cleaning so contaminants from cleaning process do not fall onto wet, newly painted surfaces.
 - E. Wood: Clean wood surfaces of dirt, oil, and other foreign substances; sandpaper smooth surfaces exposed to view and dust off.
 1. Scrape and clean seasoned knots and apply thin coat of recommended knot sealer, before application of priming coat.
 2. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job, prime edges, ends, faces, undersides, and backsides of wood.
 3. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler and sandpaper smooth when dry.
 - F. Ferrous Metals: Touch up shop-applied prime coats wherever damaged using same type of primer as applied in shop or barrier coat compatible with finish paint.
 1. Bare Surfaces: Clean surfaces that are not galvanized or shop-coated, of oil, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.
 2. Galvanized Surfaces: Clean free of oil and surface contaminants, using non-petroleum-based solvent; primer and touch-up primer to be zinc-rich primer.
 - G. Mix painting materials in accordance with manufacturer's directions.
 - H. Store materials in tightly covered containers; maintain containers used in storage, mixing and application of paint in a clean condition, free of foreign materials and residue.
 - I. Stir materials before application to produce mixture of uniform density and stir as required during application; do not stir surface film into material, if necessary, strain material before using.

3.2 APPLICATION

- A. Apply paint in accordance with manufacturer's directions; use applicators and techniques best suited for substrate and type of material being applied.
 - 1. Apply additional coats when stains or blemishes show through final coat, until paint is a uniform finish, color, and appearance.
 - 2. Provide extra attention during application to assure dry film thickness at corners and crevices is equivalent to that of flat surfaces.
 - 3. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces; paint surfaces behind permanently fixed equipment and furniture with prime coat only.
 - 4. Finish doors on tops, bottoms, and side edges same as faces.
 - 5. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.
 - 6. Sand lightly between coats when recommended by system manufacturer.
- B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or prepared for painting as soon as practicable after preparation.
 - 1. Allow time between successive coatings to permit proper drying.
 - 2. Do not recoat until paint feels firm and does not deform or feel sticky under moderate thumb pressure.
- C. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as recommended by coating manufacturer.
- D. Prime Coats: Apply to items not previously primed; recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat.
- E. Finish Coats: Provide even texture; leave no laps, irregularity in texture, skid marks, or other surface imperfections.
 - 1. Opaque Finishes: Provide opaque, uniform finish, color, and coverage; cloudiness, spotting, holidays, brush marks, runs, sags, ropiness, and other surface imperfections are not acceptable.
- F. Completed Work: Match approved samples for color, texture, and coverage; remove, refinish, or repaint work not accepted.

3.3 PAINTING SCHEDULE

- A. Interior Work: Refer to Drawings for sheens; where not specifically mentioned on Drawings provide sheens matching similar surfaces in other areas of Project.
 - 1. Gypsum Board Systems:
 - a. 1st Coat: Universal primer.
 - b. 2nd and 3rd Coat: Interior latex or acrylic latex emulsion.
 - 2. Opaque Finished Wood:

- a. 1st Coat: Primer undercoat.
 - b. 2nd and 3rd Coat: 100% acrylic enamel.
 - 3. Metal:
 - a. 1st Coat: Touch-up primer, prime if none.
 - b. 2nd and 3rd Coat: 100% acrylic enamel.
 - B. Sheens: Comply with ASTM D523, reflectance of paint.
 - 1. Flat: 1-10.
 - 1. Satin: 15-30.
 - 2. Eggshell: 30-45.
 - 3. Semigloss: 45-75.
 - 4. Gloss: 75-100.
- 3.4 CLEAN-UP, PROTECTION, AND REPAIR
- A. Clean-Up: During progress of work, remove discarded paint materials, rubbish, cans and rags from site at end of each workday.
 - 1. Clean glass and paint-spattered surfaces immediately by proper methods of washing and scraping, using care not to scratch or damage finished surfaces.
 - B. Protection: Protect work of other trades, whether to be painted or not; correct damage by cleaning, repairing, or replacing, and repainting, as acceptable to Architect.
 - 1. Provide "Wet Paint" signs to protect newly painted finishes.
 - 2. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.
 - C. Repair: At completion of work of other trades, touch-up and restore damaged surfaces or defaced painted surfaces.

END OF SECTION

SECTION 10 14 00

SIGNAGE

PART 1 - GENERAL

1.2 SUMMARY

- A. Section Includes: Provide toilet room signage as indicated complete with attachment devices and accessories as required for complete installation.

1.3 SUBMITTALS

- A. Product Data: Furnish manufacturer's literature and indicate each sign type, style, color, and method of attachment.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for adhesives.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Package separately or in like groups of names, labeled as to names enclosed; include installation template, attachment system and installation instructions.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. ASI Modulex, ASI Sign Systems, Inc.
- B. Mohawk Sign Systems.
- C. Vomar Products, Inc.
- D. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide signage as indicated with attachment devices and accessories.
- B. Regulatory Requirements: Provide signs for assuring access for persons with disabilities in accordance with state and federal regulations.
 - 1. California Regulations: Comply with California Building Code.
 - 2. Federal Regulations: Comply with Americans with Disabilities Act (ADA) Standards.

- C. Toilet Room Door Signs: Provide door signs conforming to California requirements for signs for toilet rooms; concealed mounting system.
 - 1. Material, Plastic: Manufacturer's standard colored plastic/photopolymer signs; color as indicated, as selected by Architect from manufacturer's full range of colors where not otherwise indicated.
 - a. Texture: Smooth.
 - 2. Total Thickness: 0.25".
 - 3. Provide signs required by California Code of Regulations Title 24.
 - a. Gender Neutral Room: 12" diameter circle with equilateral triangle, vertex pointing up, superimposed on the circle; circle and triangle each 0.25" thick.
 - 1) Color of triangle shall contrast with color of circle which shall contrast with color of door face.
 - 4. Colors: As selected to contrast with doors.
 - 5. Symbols: As selected from manufacturer's standard symbols.
 - 6. Adhesive: Type as recommended by sign manufacturer for type of substrate involved.
- D. Toilet Room Wall Signs: Provide signs conforming to California Building Code and ADA Standards for signs for permanent rooms, with inset symbols and with raised and Braille characters; concealed mounting system.
 - 1. Material, Plastic: Manufacturer's standard colored plastic/photopolymer signs; color as indicated, as selected by Architect from manufacturer's full range of colors where not otherwise indicated.
 - a. Texture: Smooth.
 - 2. Comply with California Building Code and ADA Standards for raised and Braille characters, pictorial symbols, finish, and contrasts requirements.

2.3 FABRICATION

- A. Signs and Graphics:
 - 1. Character Type: Characters on signs shall be raised 1/32" and shall be sans serif uppercase case characters accompanied by Grade 2 Braille.
 - 2. Character Size: Raised characters shall be minimum 5/8" and maximum 2".
 - 3. Finish and Contrast: Contrast between character, symbols and their background shall be 70% minimum and have non-glare finish. See California Building Code Section 11B-703.5.1

4. Grade 2 Braille: California(contractured) Grade 2 Braille shall be used wherever Braille is required.
 - a. Dots shall be 1/10" on centers with 2/10" space between cells, measured from second column of dots in first cell to first column of dots in second cell.
 - b. Dots shall be raised minimum 1/.40" above background.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install signs in accordance with manufacturer recommendations and installation instructions, free from distortions and defects.
- B. Toilet Room Door Signs: Install signs on doors after doors are painted and finished.
 1. Location: Mount signs with centerline of sign between 58" and 60" height as required by applicable code.
 2. Install centered and level, in line, in accordance with the manufacturer's recommendations.
 3. Clean and polish, remove excess adhesive.
- C. Toilet Room Wall Signs: Install signs on walls after surfaces on which they are to be mounted are painted and finished.
 1. Location: Mount signs at 48" to 60" height as required by applicable codes on strike side of door.
 2. Install level, in line, in accordance with California Building Code and ADA Standards to allow a person to approach within 3" of signs without being within a door swing and without encountering protruding objects.
 3. Clean and polish, remove excess adhesive.

END OF SECTION

SECTION 10 28 00
TOILET ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide toilet accessories with attachment hardware and rough-in frames as required for complete, operational installation.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data illustrating each accessory at large scale.

1.3 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to finish material pollution control for adhesives.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver inserts and rough-in frames to jobsite at appropriate time for building in.
- B. Do not deliver accessories to site until rooms in which they are to be installed are ready to receive them.
- C. Pack accessories individually, protect each item and its finish.

1.5 SITE CONDITIONS

- A. Protect adjacent or adjoining finished surfaces from damage during installation of work of this section.
- B. Before starting work notify Architect in writing of conditions detrimental to installation or operation of units.
- C. Verify with Architect exact location of accessories.

1.6 WARRANTY

- A. Extended Correction Period:
 - 1. Replace mirrors which exhibit signs of de-silvering or distortion.
 - 2. Period: Two years.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. Bobrick Washroom Equipment, Inc.
- B. Bradley Corporation.
- C. American Specialties, Inc.
- D. Manufacturers listed on Toilet Accessories Schedules.
- E. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide toilet accessories with attachment hardware and rough-in frames.
 - 1. Provide standard materials and finishes for accessories listed; where more than one material or finish is available and not otherwise indicated provide as selected by Architect from manufacturer's standard materials and finishes.
- B. Regulatory Requirements - Access for Persons with Disabilities: Comply with California Building Standards Code and Americans with Disabilities Act (ADA) Standards.
- C. Stainless-Steel Sheet: ASTM A666, commercial grade, Type 304, gages as standard with manufacturer of specified items.
- D. Stainless-Steel Tubing: ASTM A269, commercial grade, seamless welded.
- E. Mirror Glass: ASTM C1036, q1 mirror select clear float glass with full silver coating, copper coating and organic coating; minimum 1/4" thick.
- F. Sheet Steel: ASTM A1008, cold rolled stretcher leveled; minimum G90 galvanized coating, ASTM A924 and A653.
- G. Adhesive: Epoxy type contact cement as recommended by accessory manufacturer; comply with applicable requirements for limitations on volatile organic compound (VOC) emissions.
- H. Fasteners, Screws, and Bolts: Hot-dipped, galvanized; as recommended by accessory manufacturer for component and substrate.
- I. Keys: Provide universal keys for access to toilet accessory units requiring internal access for servicing and supply.
 - 1. Provide minimum six keys to Owner representative.

2.3 FABRICATION

- A. Weld and grind smooth joints of fabricated components.

- B. Form exposed surfaces from one sheet of stock, free of joints.
- C. Fabricate units with tight seams and joints, exposed edges rolled; hang doors and access panels with continuous piano hinges; provide concealed anchorage where possible.
- D. Provide steel anchor plates and anchor components for installation on building finishes.
- E. Form surfaces flat without distortion; maintain flat surfaces without scratches and without dents; finish exposed edges eased, free of sharp edges where potential exists for physical contact.
- F. Back paint components where contact is made with building finishes, to prevent electrolysis.
- G. Hot-dipped galvanize ferrous metal anchors and fastening devices.
- H. Assemble components in shop; package complete with anchors and fittings.

2.4 FINISHES

- A. Exposed Finishes: Stainless steel, number 4, satin finish; satin chrome finish acceptable where stainless steel not available for accessory item listed or scheduled.
- B. Concealed Surfaces: Treat and clean, spray-apply one coat primer and baked enamel finish.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Provide templates and rough-in measurements.

3.2 INSTALLATION

- A. Install accessories in accordance with manufacturer's printed instructions using fasteners appropriate to substrate.
- B. Install true, plumb, and level, securely and rigidly anchored to substrate.
- C. Use tamper-proof, security type fasteners.
- D. Adjust accessories for proper operation and verify mechanisms function smoothly.
- E. Replace damaged and defective items.
- F. Clean and polish exposed surfaces after removing temporary labels.

3.3 TOILET ACCESSORIES SCHEDULE

- A. Refer to Drawings.

END OF SECTION

SECTION 21 00 00

FIRE SUPPRESSION SYSTEMS DESIGN/BUILD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Design/Build complete fire suppression system modifications for new restrooms as indicated including accessories as required by applicable codes and requirements of local Fire Protection District.

B. Related Sections:

1. Section 26 00 00: Electrical system design/build including smoke detectors.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Design/Build: Provide fire suppression systems design engineering by California licensed fire suppression engineer to ensure fire suppression system complies with applicable codes and Contract Documents.

1. Refer to Section 01 13 00 – Administrative Procedures for general design/build requirements.

B. Pre-Installation Meeting: Convene not less than one week prior to commencing work of this Section. Require attendance of those directly affecting work of this Section.

1. Review required space for fire suppression system and other building components, installation procedures and coordination required with related work.

1.3 SUBMITTALS

A. Product Data: Submit materials list describing proposed materials by manufacturer's name and catalog number.

B. Shop Drawings: Within 35 calendar days after award of Contract, and before any materials of this section are delivered to job site, submit complete shop drawings to Architect.

1. Provide drawings and specifications as required for approvals of authorities.
2. Include layout drawing of complete overhead sprinkler system indicating relationship of other overhead items including ceiling air diffusers, lighting fixtures and beams.
3. Include plot plan indicating location of underground connections, control valves, piping and related items, and showing location of structures within 15 feet of Work.
4. Include details and sections as required to clearly define and clarify design.
5. Include layout of standpipe systems as required.

C. Samples: Submit samples of each type of sprinkler head.

- D. Design/Build Certificates: Submit certification signed by California licensed fire suppression engineer indicating compliance with Contract Documents and code requirements.
- E. Certificates: Deliver to Architect certificate of approval of Fire Marshal having jurisdiction.
- F. Closeout Submittals:
 - 1. Record Drawings: During progress of work, maintain accurate record of all changes made in fire suppression system installation from layout and materials shown on approved shop drawings.
 - 2. Manuals: Compile and operation and maintenance manuals, include a copy of record drawings with each manual.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Firm with not less than five years successful experience installing fire suppression systems similar to that required for Project.
- B. Supervisor: Installer to maintain full-time supervisor/foreman who is on jobsite during fire suppression system work who is experienced in fire suppression system supervision and of installation of fire suppression system specified.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials of this section before, during and after installation and to protect work and materials of other trades.
- B. In event of damage, immediately make repairs and replacements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. SimplexGrinnel LP.
- B. Globe Fire Sprinkler Corp.
- C. Viking Automatic Sprinkler Company.
- D. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide complete fire suppression system including accessories.
 - 1. Provide connection to existing piping, including required valves, fittings and items necessary for complete operational installation.
 - 2. Modify existing overhead sprinkler system.

- B. Regulatory Requirements, General: Comply with requirements of applicable codes and regulations.
- C. Accessibility Regulatory Requirements: Provide for assuring access for persons with disabilities in accordance with state and federal regulations.
 - 1. California Regulations: Comply with California Building Standards Code.
 - 2. Federal Regulations: Comply with Americans with Disabilities Act (ADA) Standards.
- D. Quality of Materials: Quality required by agencies having jurisdiction.
 - 1. Piping: Free from rust and shop coated with one coat of rust-inhibitive paint.
- E. Sprinkler Heads: Pendant spray type, unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which work will be installed.
- B. Beginning of installation signifies acceptance of conditions.

3.2 INSTALLATION

- A. Modify existing fire suppression system in strict accordance with applicable codes and regulations and approved shop drawings.
 - 1. Do not cut into or reduce size of any load-carrying member without prior approval of Architect or Structural Engineer.
 - 2. Sprinkler Head Locations: Provide where indicated on Drawings. Where not otherwise submit proposed locations to Architect for approval.
 - 3. Piping: In areas having ceilings, conceal piping.

3.3 FIELD QUALITY CONTROL

- A. Site Tests: Upon completion of installation, furnish personnel and equipment necessary and test and re-test complete system, making required adjustments and securing approval of Fire Marshal having jurisdiction.

END OF SECTION

SECTION 22 00 00

PLUMBING SYSTEMS DESIGN/BUILD

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Design/Build complete plumbing systems modifications for restrooms as indicated including accessories in conformance with applicable codes and standards, state and local.
- B. Related Sections:
 - 1. Section 21 00 00: Fire suppression systems design/build.
 - 2. Section 23 00 00: Heating and venting systems design/build.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Design/Build: Modify existing plumbing systems based on design engineering by California licensed mechanical engineer to ensure plumbing systems comply with applicable codes and Contract Documents.
 - 1. Refer to Section 01 13 00 – Administrative Procedures for general design/build requirements.
- B. Pre-Installation Meeting: Convene not less than one week prior to commencing work of this Section. Require attendance of those directly affecting work of this Section.
 - 1. Review required space for plumbing systems and other building components, installation procedures and coordination required with related work.

1.3 SUBMITTALS

- A. Product Data: Submit materials list describing proposed materials by manufacturers' names and catalog numbers; submit manufacturer's literature for each plumbing fixture and exposed fittings.
 - 1. Furnish catalog cuts and other data required to demonstrate compliance with specified requirements.
- B. Shop Drawings: Within 35 calendar days after award of Contract, and before any materials of this section are delivered to job site, submit complete shop drawings to Architect.
 - 1. Provide drawings and specifications as required for approvals of authorities.
 - 2. Include layout drawing of complete plumbing system indicating relationship of other items.
 - 3. Include plot plan indicating location of underground connections, control valves, piping and related items, and showing location of structures within 15 feet of Work.
 - 4. Include details and sections as required to clearly define and clarify design.

- C. Certificates: Furnish certificates required by applicable authorities for use of plumbing systems.
- D. Design/Build Certificates: Submit certification signed by California licensed plumbing engineer indicating compliance with Contract Documents and code requirements.
- E. Closeout Submittals: Submit operation and maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to water efficiency and conservation.
- B. Qualification of Installers: Use journeyman plumbers and competent supervisors to ensure proper and adequate installation.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials of this section before, during and after installation and to protect work and materials of other trades.
- B. In event of damage, immediately make repairs and replacements.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Section Includes: Design/Build complete plumbing systems including accessories in conformance with applicable codes and standards, state and local.
 - 1. Cold water distribution, domestic water heating and distribution, vents, and wastes.
 - 2. Plumbing fixtures and trim.
 - 3. Plumbing items needed for complete and proper installation.
- B. Regulatory Requirements, General: Comply with requirements of applicable codes and regulations.
- C. Accessibility Regulatory Requirements: Provide for assuring access for persons with disabilities in accordance with state and federal regulations.
 - 3. California Regulations: Comply with California Building Standards Code.
 - 4. Federal Regulations: Comply with Americans with Disabilities Act (ADA) Standards.
- D. Design Criteria: Provide water supply systems free of lead of any kind.
- E. Piping, General: Comply with applicable code requirements.
 - 1. Domestic Water Piping: Hot and cold-water piping shall be hard-drawn copper tube with wrought or forged copper fittings and lead-free solder.
 - 2. Pipe Sleeves and Escutcheons: Provide ample clearance for pipe and covering, and chrome plated wall and floor escutcheons over pipe in finished areas.

- F. Valves: As required for complete system approved by enforcing agencies.
- G. Valve Boxes: Of required depth, with lock type cast iron covers labeled as required.
- H. Hangers and Supports: As required by codes; trapeze hangers may be used where parallel runs of pipe occur; rods on trapeze hangers shall be 1/2" minimum.
- I. Vent Flashing: Provide flashing and counterflashing at each vent through roof.
- J. Shock Absorbers: Provide for plumbing fixtures and as required by applicable codes.
- K. Isolation: Isolate dissimilar metals; isolate plumbing lines from building to prevent transmission of noises from plumbing.
- L. Insulation: Provide as required by applicable codes as required to prevent freezing and condensation.
- M. Access Plates: Provide access plates of prime coated steel for painted walls, with Allen key locking devices.
- N. Fixtures and Equipment: Provide fixtures and equipment complete with required stops, supplies, backing drain, trim and other items necessary.
 - 1. Fixtures: Refer to Drawings for list of fixtures.
 - 2. Finishes: As selected by Architect from manufacturer's standard colors and finishes.
- O. Other Materials: Provide materials required for complete and proper installation of work; materials shall be new, first quality of their respective kinds.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which work will be installed, correct conditions detrimental to proper and timely completion of work.
- B. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Modify complete plumbing systems in strict accordance with applicable codes and regulations and approved shop drawings.
 - 1. Do not cut into or reduce size of any load-carrying member without prior approval of Architect or Structural Engineer.
- B. Install pipes to clear beams and obstructions and in accordance with following:
 - 1. Install piping promptly, capping or plugging open ends.
 - 2. Install piping generally level and plumb, free from traps and in a manner to conserve space for other work.

3. Cushion traps and bearings to minimize transfer of sound; provide complete isolation of dissimilar metals.
 4. Firmly anchor pipes into position.
 5. Provide uniform pitch of at least 1/4" per foot for horizontal waste and soil piping within building.
 6. Pitch vents for proper drainage, install vent piping with each bend 45 degrees minimum from horizontal wherever structural conditions will permit.
 7. Provide air chambers at fixtures; 16" minimum length and same diameter as branch.
 8. Conceal piping unless otherwise shown on drawings.
 9. Inspect each pipe, coupling, fitting, and equipment for defects and obstructions; remove defective material from site.
- C. Joints and Connections: Ream cut pipe with threads cut straight and true. Apply best quality Teflon tape to male pipe threads, but not to inside fittings, use graphite on cleanout plugs.
1. Copper: Make joints in copper tubing with lead-free solder applied in strict accordance with manufacturer's recommendations.
- D. Hangers and Supports: Use separate hanger for each branch, support vertical risers at floor with extension pipe clamps approved by Architect.
1. Where insulated pipe is supported by ring hangers size rings to pass freely around insulation.
 2. Protect insulation at point of contact with saddles.
- E. Cold Water Piping Insulation: Coat cold water piping concealed within walls and ceilings using plastic coating or similar insulation to prevent freeze-up and to prevent condensation; apply in accordance with manufacturer's recommendation.
- F. Hot Water Piping Insulation: Insulate hot water piping where required by applicable codes and regulations; apply in accordance with manufacturer's recommendations.
- G. Pipe Sterilization: After preliminary purging of system, chlorinate entire potable water system in accordance with procedures of American Water Works Association and in accordance with applicable codes and regulations.
1. Upon completion of sterilizing, thoroughly flush entire potable water system.
 2. When sterilizing is complete, arrange with pertinent authorities for tests on mains and systems.

3.3 FIELD QUALITY CONTROL

- A. Site Tests: Furnish test pumps, gages, equipment, and personnel required and test as necessary to demonstrate integrity of finished installation to approval of pertinent authorities and Architect.
 - 1. Soil and Waste: Unless otherwise directed, plug openings, and fill with water to height equal to lowest vent, allow to stand one hour or longer as required. Re-caulk leaking joints and re-test.
 - 2. Water Lines: Test and make tight at 150 psi water gage; retain for four hours; repair leaking joints as directed; re-test.
 - 3. Valves:
 - a. Test valve bonnets for tightness.
 - b. Test operate valves at least once from closed-to-open-to-closed positions while valve is under pressure.
 - c. Test automatic valves for proper operation at settings indicated.
 - d. Test pressure relief valves at least 3 times.
 - 4. Other: Test piping specialties for proper operation; test air vent points to ensure that air has been vented.
- B. Inspections: Do not cover up or enclose work until it has been properly and completely inspected and approved.
 - 1. Uncover work covered up or enclosed prior to required inspections and approvals, after inspected and approved, make repairs and replacements as required for approvals.

END OF SECTION

SECTION 23 00 00**HEATING AND VENTING SYSTEMS DESIGN/BUILD**

PART 1 - GENERAL**1.1 SUMMARY**

- A. Section Includes: Design/Build modifications to existing heating and ventilating systems including accessories in conformance with applicable codes and standards, state and local.
- B. Related Sections:
 - 1. Section 22 00 00: Plumbing systems design/build requirements.
 - 2. Section 26 00 00: Electrical systems design/build requirements.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Design/Build: Provide heating and venting systems modifications design engineering by California licensed mechanical engineer to ensure systems comply with applicable codes and Contract Documents.
 - 1. Refer to Section 01 13 00 – Administrative Procedures for general design/build requirements.
- B. Coordination Electrical Connections: Coordinate electrical connections with Section 26 00 00 – Electrical Systems Design/Build.
- C. Pre-Installation Meeting: Convene not less than one week prior to commencing work of this Section. Require attendance of those directly affecting work of this Section.
 - 1. Review required space for heating and venting systems and other building components, installation procedures and coordination required with related work.

1.3 SUBMITTALS

- A. Product Data: Submit materials list describing proposed materials by manufacturers' names and catalog numbers; submit manufacturer's literature for each heating fixture and exposed fittings.
 - 1. Furnish catalog cuts and other data required to demonstrate compliance with specified requirements.
- B. Shop Drawings: Within 35 calendar days after award of Contract, and before any materials of this section are delivered to job site, submit complete shop drawings to Architect.
 - 1. Provide drawings and specifications as required for approvals of authorities.
 - 2. Include layout drawing of complete heating and venting system indicating relationship of all other overhead items including ceiling air diffusers, lighting fixtures and beams.

3. Include plot plan indicating location of underground connections, controls, ducts, and related items, and showing location of structures within 15 feet of Work.
 4. Include details and sections as required to define and clarify design.
 5. Include complete layout of duct systems.
- C. Samples: Submit samples of components exposed in finished construction such as grilles.
- D. Design/Build Certificates: Submit certification signed by California licensed mechanical engineer indicating modifications are in compliance with Contract Documents and code requirements.
- E. Closeout Submittals:
1. Record Drawings: During progress of work, maintain accurate record of all changes made in heating and venting system installation from layout and materials shown on approved shop drawings.
 2. Manual: Compile and deliver two copies of operation and maintenance manual; include a copy of record drawings in each copy of manual.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to energy efficiency.
- B. Installer Qualifications: Firm with not less than five years successful experience installing heating and venting systems similar to that required for Project.
- C. Supervisor: Installer to maintain full-time supervisor/foreman who is on jobsite during heating and venting systems work who is experienced in heating and venting system supervision and of installation of system specified.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials of this section before, during and after installation and to protect work and materials of all other trades.
- B. In event of damage, immediately make repairs and replacements necessary.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. Heating and Venting Systems: By manufacturer listed on Drawings; where not otherwise listed provide systems approved by Architect.
- B. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Design/Build complete heating and ventilating systems including accessories.
 - 1. Provide complete system from one manufacturer to extent possible.
 - 2. Each kind of material shall be from one manufacture.
 - 3. Modify existing heating system.
 - 4. Provide ducts and diffusers as required for balanced system.
 - 5. Provide ventilation systems for sanitary facilities.
- B. Regulatory Requirements, General: Comply with requirements of applicable codes and regulations.
 - 1. Conform to California Building Standards Code requirements for Energy Conservation.
- C. Accessibility Regulatory Requirements: Provide for assuring access for persons with disabilities in accordance with state and federal regulations.
 - 5. California Regulations: Comply with California Building Standards Code.
 - 6. Federal Regulations: Comply with Americans with Disabilities Act (ADA) Standards.
- D. Design Criteria: Provide heating and venting systems free of hazardous materials.
- E. Materials: Quality of materials required for this installation shall be that quality required by agencies having jurisdiction.
- F. Sheet Metal Ductwork: Design and fabricate ductwork to prevent noise and vibration; insulate supply ducts; internally seal discharge ductwork with mastic.
- G. Volume Dampers: Adjustable, located as close as possible to main duct.
- H. Fiberglass Ducts: Where permitted by code, fiberglass ducts may be used in lieu of metal ducts where concealed and not subject to damage.
- I. Accessories: Provide as required for complete, operable systems.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which work will be installed, correct conditions detrimental to proper and timely completion of work.
- B. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install complete heating and venting system in strict accordance with manufacturer recommendations and installation instructions, applicable codes and regulations, and approved shop drawings.
 - 1. Do not cut into or reduce size of any load-carrying member without prior approval of Architect or Structural Engineer.

2. In areas having ceilings, conceal piping and ducts.
 3. In storage and service areas, pipe and ducts may be exposed but shall be held to minimum distance below ceiling.
- B. Install exposed grilles, registers and diffusers in locations indicated or approved, straight, and in correct relationship to adjacent materials.
- C. Identify ducts, piping, and equipment, including valves and dampers, to permit immediate and positive recognition of components.
1. Include charts showing valve numbers, locations, and use, mounted to wall where directed.
 2. Provide piping identification markers, coordinate with Section 09 90 00 – Painting and Coating.
 3. Provide equipment labels securely fastened to each piece of equipment.
 4. Damper Labels: Minimum 1" high, indicating damper number and purpose.
- D. Closing-In Work: Do not allow other trades to close in HEATING AND VENTING system work until tested, inspected, and approved.

3.3 FIELD QUALITY CONTROL

- A. Upon completion of installation, furnish personnel and equipment necessary to test and balance system.
1. Testing and Balancing shall be by an independent testing and balancing consultant.
 2. Ventilating Tests Required:
 - a. Air volumes at each supply, return and exhaust outlet.
 - b. Total cfm supplied by each supply fan.
 - c. Total cfm exhausted by each exhaust fan.
 - d. Total static of each fan.
 - e. Motor speed, fan speed, and input ampere reading of each fan.
 - f. Average velocity on intake side of each fan.
 - g. Air tests by velometer or anemometer readings.
 - h. Static pressure tests by pitot tube readings.
 - i. Ampere readings by integrating watt or ampere reading.
 - j. Air balance.
 3. Coil Tests Required:
 - a. Average velocity over intake side of each coil face.
 - b. Entering temperature to each coil.
 - c. Discharge temperature from each coil.
 4. Retest as needed.

END OF SECTION

SECTION 26 00 00

ELECTRICAL SYSTEMS DESIGN/BUILD

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Design/Build complete modifications to existing electrical systems including accessories in conformance with applicable codes and standards, state and local.
- B. Related Sections:
 - 1. Section 21 00 00: Fire suppression systems design/build requirements.
 - 2. Section 23 00 00: Heating systems design/build requirements.

1.2 REFERENCE STANDARDS

- A. Standards: Following independent agencies standards.
 - 1. Underwriters' Laboratories, Inc. (UL).
 - 2. Certified Ballast Manufacturers (CBM).
 - 3. Electrical Testing Laboratories (ETL).
 - 4. National Electrical Manufacturer Assoc. (NEMA).

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Design/Build: Provide electrical systems modifications design engineering by California licensed electrical engineer to ensure electrical systems comply with applicable codes and Contract Documents.
 - 1. Refer to Section 01 13 00 – Administrative Procedures for general design/build requirements.
- B. Coordination: Review Contract Documents for equipment requiring electrical power.
- C. Pre-Installation Meeting: Convene not less than one week prior to commencing work of this Section. Require attendance of those directly affecting work of this Section.
 - 1. Review required space for electrical systems and other building components, installation procedures and coordination required with related work.

1.4 SUBMITTALS

- A. Product Data: Submit materials list describing proposed materials by manufacturers' names and catalog numbers; submit manufacturer's literature for each electrical fixture, lighting fixture, and exposed fittings.
 - 1. Furnish catalog cuts and other data required to demonstrate compliance with specified requirements.

- B. Shop Drawings: Within 35 calendar days after award of Contract, and before any materials of this section are delivered to job site, submit complete shop drawings to Architect.
 - 1. Provide drawings and specifications as required for approvals of authorities.
 - 2. Include layout drawing of complete electrical systems indicating relationship of all other overhead items including ceiling air diffusers, lighting fixtures and beams.
 - 3. Include plot plan indicating location of underground connections, controls, conduits, and related items, and showing location of structures within 15 feet of Work.
 - 4. Include details and sections as required to define and clarify design.
- C. Samples: Submit as requested by Architect.
- D. Design/Build Certificates: Submit certification signed by California licensed electrical engineer indicating compliance with Contract Documents and code requirements.
- E. Closeout Submittals:
 - 1. Record Drawings: During progress of work, maintain accurate record of all changes made in electrical system installation from layout and materials shown on approved shop drawings.
 - 2. Manual: Compile and deliver operation and maintenance manual; include copy of record drawings in each copy of manual.

1.5 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements including those relative to energy efficiency.
- B. Installer Qualifications: Firm with not less than five years successful experience installing electrical systems similar to that required for Project.
- C. Supervisor: Installer to maintain full-time supervisor/foreman who is on jobsite during electrical systems work who is experienced in electrical system supervision and of installation of system specified.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials of this section before, during and after installation and to protect work and materials of all other trades.
- B. In event of damage, immediately make repairs and replacements necessary.

1.7 SPECIAL WARRANTY

- A. Extended Correction Period: Extend correction period to two years.
 - 1. Electrical system to be free of faults and defects.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. Lighting Fixtures and Exposed Electrical Items: By manufacturers listed on Drawings; where not otherwise listed provide systems as approved by Architect.
- B. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide complete electrical systems including accessories.
 - 1. Each kind of material shall be from one manufacturer.
 - 2. Provide electrical service and distribution.
 - 3. Provide electric fixtures and lamps.
 - 4. Provide battery operated emergency lighting if required.
 - 5. Provide hard wire products of combustion detection system if required.
 - 6. Incidental work called for on Drawings or required by codes.
- B. Regulatory Requirements: Comply with requirements of applicable codes and regulations.
 - 1. Conform to California Building Standards Code requirements for Energy Conservation.
- C. Accessibility Regulatory Requirements: Provide for assuring access for persons with disabilities in accordance with state and federal regulations.
 - 7. California Regulations: Comply with California Building Standards Code.
 - 8. Federal Regulations: Comply with Americans with Disabilities Act (ADA) Standards.
- D. Design Criteria, Electrical Service: Verify existing circuits are adequate for modifications; add new breakers where additional service is required.
- E. Conduit:
 - 1. Standard Applications: Minimum galvanized thin wall (EMT).
- F. Wiring: Minimum number 12, TW, unless larger wiring required by code.
 - 1. Insulate and tape splices in accordance with code.
- G. Panels: Add to existing panels where required.
 - 1. Mount typewritten directory behind plastic inside each panel door.
 - 2. Show circuit number and complete description of outlets on each circuit.
- H. Switch Plates and Outlet Plates: As indicated, as directed by Architect where not otherwise indicated.
- I. Duplex Receptacles: 3-pole grounding type, ground-fault type; match outlet plates at interior locations.

- J. Lighting Fixtures and Lamps: As indicated on Drawings and as required to comply with applicable energy efficiency requirements while providing sufficient lumens for applications involved and natural spectrum lighting.
 - 1. Where not otherwise indicated on Drawings provide types approved by Architect.
- K. Emergency Lighting: Comply with applicable code requirements where required.
- L. Products of Combustion System (Smoke Detectors): Comply with applicable code requirements; provide hard wired system with battery backups where required.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine areas and conditions under which electrical work will be installed, correct conditions detrimental to proper and timely completion of work.
- B. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Electrical System Modifications: Comply with manufacturer recommendations and installation instructions, applicable codes and regulations, and approved shop drawings.
 - 1. Wire with white wire for neutral and colored wire for phase wires.
 - 2. Where conduit is installed in concrete slabs, on ground, underground, or exposed to weather, make joints liquid tight and gas tight.
 - 3. Unless specifically approved by code authorities, install cables and wires in conduit, metal raceways or pullboxes.
- B. Ground electrical system, including housing of fixtures.
- C. Electrical Equipment: Complete with holders, screws, sockets, wires, lamps, as necessary for complete installation.
 - 1. Install electrical equipment, including light fixtures, straight and true with reference to adjacent walls and surfaces.
 - 2. Install lighting fixtures directly to building structure with code approved fastening systems and including required seismic bracing.
 - 3. Provide conduit and wiring for work of other trades as specified in other specification sections.
 - 4. Install and support electrical equipment in accordance with manufacturer's recommendations.
 - 5. Mount outlets and switches in accordance with state handicapped access requirements.

6. Switch Plates: Centered maximum 48" above floor.
 7. Wall Outlets: Centered minimum 15" above floor.
- D. Closing-In Work: Do not allow other trades to close in electrical systems work until tested, inspected, and approved.

3.3 FIELD QUALITY CONTROL

- A. Site Tests: Upon completion of installation, furnish personnel and equipment necessary and test and re-test complete system, and securing approval of applicable code authorities.
1. Test circuits for proper neutral connections.
 2. Measure minimum and maximum voltages.
 3. Test for proper grounding.

END OF SECTION

BID FORMS

CITY OF SANTA ROSA

STATE OF CALIFORNIA

RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS

The work to be performed and referred to herein is in the City of Santa Rosa, California and consists of improvements to be constructed in accordance with the provisions of the Invitation for Bids, containing the Notice to Bidders, the Special Provisions, the Project Plan(s), the Bid Forms and the Contract, all of which are by reference incorporated herein, and each Addendum, if any is issued, to any of the above which is also incorporated by reference herein.

TO THE AWARD AUTHORITY OF THE CITY OF SANTA ROSA

The undersigned, as bidder, declares that the only person or parties interested in this bid as principals are those named herein; that this bid is made without collusion with any other person, firm, or corporation; that Contractor has carefully examined the Project Plans, Invitation for Bids and conditions therefor, and is familiar with all bid requirements, that Contractor has examined this Contract and the provisions incorporated by reference herein, and Contractor hereby proposes, and agrees that if its bid is accepted by the City, Contractor will provide all necessary machinery, tools, apparatuses, and other means of construction, and to do all the work and furnish all the materials and services required to complete the construction in accordance with the Contract, the Special Provisions, the Project Plan(s), and Addenda to any of the above as incorporated by reference, in the time stated herein, for the unit prices and/or lump sum prices as follows:

CITY OF SANTA ROSA
C02394 RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS
UNIT PRICE SCHEDULE

Bidder Name: _____

Item	Description	Quantity	Unit	Unit Price	Total Price
1	RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS	1	LS	\$_____	\$_____
GRAND TOTAL BID					\$_____

In the case of any discrepancy between the unit price and the total set forth for the item, the unit price shall prevail; provided, however, that if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any reason, or is omitted, or in the case of lump sum items, is not the same amount as the entry in the "Total" column, then the amount set forth in the "Total" column for the item shall prevail in accordance with the following:

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

The Total Base Bid shall be the sum of the "Total" column. In case of discrepancy between the sum of the "Total" column and the amount entered as Total Base Bid, the sum of the "Total" column shall prevail. The bid comparison will be based on the sum of the "Total" column for each bidder.

If this Contract Bid is accepted by the City and the undersigned fails to execute the Contract and to give all the bonds required under the Contract, with a surety satisfactory to the Award Authority of the City of Santa Rosa, within ten calendar days after bidder has received the Notice of Award from the Engineer, then the Award Authority may, at its option, determine that the bidder has abandoned the Contract, and thereupon this bid and the acceptance thereof shall be null and void, and the forfeiture of the security accompanying this bid shall be in accordance with California Public Contract Code section 20172.

The undersigned understands and agrees that the City is not responsible for any error or omissions on the part of the undersigned in making this bid.

The bidder to whom the Contract is awarded agrees to execute the Contract in favor of the City, in the form attached, and to deliver any and all required bond(s) and insurance certificates within ten calendar days from the date of Contractor's receipt of the Notice of Award. Following the award of the Contract, Contractor shall commence work within ten calendar days from the day authorized in the Notice to Proceed and diligently prosecute the same to completion in accordance with Section 8-1.04.

LIST OF SUBCONTRACTORS

NAME OF BIDDER: _____

The following is a list of each subcontractor who will perform work or labor or render services to the undersigned for the construction of the project in an amount in excess of ½ of 1% of the total amount of this bid.

The undersigned agrees that any portion of the work in excess of ½ of 1% of the total amount of this bid and for which no subcontractor is designated herein will be performed by the undersigned.

SUBCONTRACTOR NAME	SUBCONTRACTOR LICENSE NUMBER	SUBCONTRACTOR DIR REGISTRATION NUMBER	SUBCONTRACTOR BUSINESS ADDRESS	DESCRIPTION OF WORK (ITEM NO.)

LIST OF PREVIOUS SIMILAR JOBS

NAME OF BIDDER: _____

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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].

NOTE: The above Noncollusion Declaration is part of the Contract Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Noncollusion Declaration.

BID BOND AFFIDAVIT AND BIDDER'S SIGNATURE PAGE

Accompanying this bid is a guaranty in the form of (Notice: Insert the words "cash \$," "Cashier's Check," "Certified Check," or "Bidder's Bond" as the case may be):

in an amount equal to at least ten percent of the total of this bid.

The undersigned further agrees that if Contractor does not execute the Contract and deliver the necessary bonds to the City within the period of time specified in this Invitation for Bids, the proceeds of the security accompanying this bid shall become the property of the City of Santa Rosa, California, and this bid and the acceptance thereof may, at the option of the City, be considered null and void.

The undersigned is licensed in accordance with an act providing for the registration of Contractors, License No. _____, Class _____, expiration date _____.

The undersigned is registered with the Department of Industrial Relations, Registration No. _____.

IMPORTANT NOTICE: If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager of the corporation; if a partnership, state true name of partnership, also the names of all partners in the partnership; if the bidder is a sole proprietor, state the business name and the proprietor's name in full.

Secretary of State Business Entity Number: _____.

Business Address

Telephone Number

I declare under penalty of perjury that the foregoing is true and correct.

BIDDER'S SIGNATURE: _____

TITLE: _____

DATE: _____

CONTRACT

CITY OF SANTA ROSA

CALIFORNIA

CONTRACT NO. C02394

RAILROAD DEPOT RESTROOMS ACCESSIBILITY ALTERATIONS

This Contract is made and entered into as of date to be added upon award at Santa Rosa, California, between the City of Santa Rosa ("City") and _____ of _____ ("Contractor").

ARTICLE I - For and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by City, and under the conditions expressed in the required bonds hereunto annexed, Contractor agrees that for the benefit of City, at its own cost and expense, to do all the work and furnish all the materials, except such as are mentioned in the Special Provisions to be furnished by City, necessary to construct and complete the work herein described in a good, workmanlike, and substantial manner. The work embraced herein shall be done in accordance with the Standard Specifications of the State of California Department of Transportation, dated 2010, insofar as the same may apply (Standard Specifications); in accordance with the City of Santa Rosa Construction Specifications for Public Improvements (City Specifications); in accordance with the City of Santa Rosa Design and Construction Standards, (City Standards); in accordance with the State of California Department of Transportation Standard Plans, dated 2010 (Standard Plans), (collectively, "Contract Documents") and in accordance with the Special Provisions hereinabove set forth, all of which are hereby incorporated into and made part of this Contract.

The work to be performed is further shown upon a plan consisting of Railroad Depot Restrooms Accessibility Alterations, File Number 2022-0027, approved by the Deputy Director of Transportation and Public Works, hereinafter referred to as the Project Plan(s).

ARTICLE II - Contractor agrees to receive and accept the following prices as full compensation for furnishing all materials and doing all the work contemplated and embraced in this Contract; also for all loss or damages arising out of the nature of the work aforesaid, or from the acts of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by City and for all expenses incurred by or in consequence of the suspension or discontinuance of work, and for well and faithfully completing the work, and the whole thereof in the manner and according to the Project Plans and Invitation for Bids therefor, and the requirements of the Engineer under them to wit:

ITEM NUMBER	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
			\$ _____	\$ _____
TOTAL BASE BID (SUM OF "TOTAL" COLUMN)			\$ _____	

**BID ITEMS IN THIS SECTION WILL BE INSERTED
UPON AWARD OF THE CONTRACT AND SHALL BE
THE SAME AS THOSE BID UPON.**

ARTICLE III - City and Contractor hereby promise and agree that Contractor shall provide the materials and do the work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and City hereby agrees to pay for the same at the time, in the manner, and upon the conditions set forth; and the parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to full performance of the covenants herein stated.

ARTICLE IV - By execution of this Contract, Contractor hereby represents and certifies that Contractor is aware of the provisions of Labor Code section 3700 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 Contractor hereby agrees to comply with such provisions before commencing the performance of the work of this Contract.

ARTICLE V - It is further expressly agreed by and between the parties hereto that the Invitation for Bids, containing the Notice to Bidders including any required Bonds, the Contract Documents, and any Addenda are all essential parts of this Contract and are specially referred to and by such reference made a part hereof. In the event of any conflict in the provisions thereof, the terms of said documents shall control each over the other, in the following order:

1. Special Provisions
2. Project Plans
3. City Standards
4. City Specifications
5. Standard Specifications
6. Standard Plans

ARTICLE VI - Contractor agrees to commence work pursuant to this Contract within ten calendar days from the date authorized in the Notice to Proceed and to diligently prosecute the same to completion in accordance with Section 8-1.04C of the Special Provisions.

This Contract shall not be transferred or assigned without the prior written consent of City, which may be withheld by City in its sole and absolute discretion.

If Contractor is a corporation, two corporate officers of Contractor, one from each of the following two groups shall execute this Contract: a) the chairman of the board, president or any vice-president; b) the secretary, any assistant secretary, chief financial officer, or any assistant treasurer. The name and title of the corporate officers shall be printed under the signature.

In witness whereof, the parties hereto have executed this Contract as of the date first written above.

City:

City of Santa Rosa,
a Municipal corporation

By: _____

Title: _____

ATTEST:

By: _____

Title: _____

Approved as to form:

By: _____

Office of City Attorney

Contractor:

Name of Contractor,
Type of entity

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____